



NMetC2026

5th Nordic Metabolomics Conference 2026

**Uppsala, Sweden
28–30 September 2026**

[**nordicmetsoc.org/nmetc2026**](https://nordicmetsoc.org/nmetc2026)

Welcome words

The 5th Nordic Metabolomics Conference will take place in Uppsala, Sweden, from 28 to 30 September 2026, bringing together the metabolomics community for three days of scientific exchange, discussion and networking.

Our programme features two plenary lectures and four keynote presentations by speakers from the Nordic region and beyond, showcasing advances across metabolomics research.

Alongside these invited lectures, 26 contributed oral presentations will explore clinical metabolomics, microbiome metabolomics, lipidomics, spatial metabolomics, multi-omics and new analytical and computational approaches. Lightning talks and poster sessions will provide further opportunities to share research and exchange ideas.

We also wish to warmly thank our sponsors, whose contributions are vital for the running of the conference and the Nordic Society more broadly. Please use the conference to connect with them and learn about the the latest developments in metabolomics technologies and methodologies.

Supporting early-career researchers remains central to the conference. A dedicated Early Career Event on 27 September will offer opportunities to connect with peers ahead of the main programme, while oral presentations, lightning talks and poster discussions will provide a platform for them to present their work to the wider community.

Beyond the scientific programme, we look forward to welcoming you to Uppsala and its rich academic and cultural heritage. Social activities include a welcome drink during the first poster session, a tour of the Gustavianum and a conference dinner at Uppsala Castle, alongside opportunities to continue conversations over Swedish fika.

On behalf of the board of the Nordic Metabolomics Society and the organising committee, I warmly welcome you to the 5th Nordic Metabolomics Conference. We look forward to sharing an inspiring and enjoyable meeting with you in Uppsala.

Alex Dickens

Chair of the Nordic Metabolomics Society

Organising Committee / Scientific Committee



Daniel Globisch
Uppsala University



Ingela Lanekoff
Uppsala University



Wojciech Michno
Uppsala University



Alex Dickens
University of Turku



Matej Orešič
University of Turku



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Rikard Landberg
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Early Career Event



Ioanna Tsiara
Uppsala University

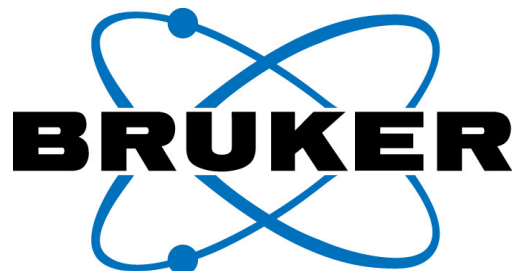


Connie Petroeschovsky
Uppsala University

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Program

Sunday 27 September 2026 - Early Career Workshop

- 16:30-19:10** *Career Paths for Young Scientists in Metabolomics* *Scandic Uplandia, Uppsala*
16:30 Arrival & registration 16:45 Welcome, introduction & safety briefing
17:00 *Dr. Tuulia Hyötyläinen* (Örebro University)
17:30 Fika & coffee break
18:00 *Dr. Cristian De Gobba* (Bruker Daltonics)
18:30 *Dr. Julia Debik* (NTNU) 19:00 Closing remarks

Monday 28 September 2026

- 09:00** **Registration and coffee**
- 10:00** **Welcome**
- 10:05** **Plenary · 10:05**
Make metabolomics great again: LC-BinBase with MassWiki
Oliver Fiehn *Chair: Daniel Globisch*
- 10:45** **Session 1: Mixed Applications Metabolomics**
Chair: Daniel Globisch
10:45 Secretome NMR Profiling of Prostate Tissue Explants and Organoids Reveals Integrated One-Carbon and Nicotinamide Dysregulation
Victoire Bondeville
11:05 Benchmarking Ion Mobility-Resolved LC-MS/MS Spectral Libraries Demonstrates the Need for Instrument-Specific Spectral Libraries
Aninda Mazumdar
11:25 Acute effects of moderate- and high-intensity exercise on the human milk metabolome.
Marta R. Moksnes
11:45 [Gold Sponsor - Bruker] Big Technologies for Small Molecules
Matthew Lewis
- 12:00** **Lunch**
- 12:15** **Set up of posters**

Program

Monday 28th September

- 13:00** **Keynote · 13:00**
Inside the Tumor and Beyond: NMR-based Metabolic Profiling in Cancer
Tone Frost Bathen Chair: *Matej Orešič*
- 13:30** **Session 2 (part 1): Clinical Metabolomics**
Chair: *Matej Orešič*
13:30 Deep Learning of Serum Metabolomics Identifies Early Multiple Sclerosis Signatures and Reveals No Accelerated Metabolomic Aging at Diagnosis
Jakob Siljebo
13:50 Early serum metabolomics trajectories and severe retinopathy of prematurity in extremely preterm infants: preliminary results from the Mega Donna Mega trial
Anders K. Nilsson
14:10 Distinct Metabolic Signatures Distinguish Lung, Colorectal and Ovarian Cancer
Ioanna Tsiara
- 14:30** **Break** Fika
- 15:10** **Session 2 (part 2): Clinical Metabolomics**
Chair: *Wojciech Michno*
15:10 Optimised Extraction of Dried Blood Spots for Untargeted HILIC Metabolomics: A Factorial Comparison with Independent Confirmation
Étienne Ljóni Poisson
15:30 Combining spatial metabolomics and transcriptomics to understand long term changes in the brain following a TBI
Alex Dickens
15:50 Longitudinal metabolomic trajectories across the development of Inflammatory Bowel Disease
Malene Revsbech Christiansen
16:10 Changes in serum lipids during breast cancer treatment with aromatase inhibitors- results from a randomized controlled trial
Guro F. Giskeødegård
- 16:30** **Lightning talks** (Chair: *Connie Petroeschovsky*)
LT1/P5 *Francesca Bucci* - Linking Individual Urine Metabolomic Profiles to Postprandial Responses in the NUTRIOME Study
LT2/P55 *Abhijit Paul* - Elucidating the metabolic characteristics in the developing human liver through genome-scale metabolic modelling
LT3/P61 *Stefania Iliana Tziola* - The abundance and therapeutic potential of lipid droplets in Multiple Myeloma
LT4/P89 *Ankit Singh Tanwar* - Exercise as a Modulator of the Human Milk Lipidome
- 16:40** **Poster session with welcome drink** Odd numbered posters
- 18:00** **Dinner on your own**

Program

Tuesday 29th September

09:00

Session 3: New Frontiers in Metabolomics

Chair: *Julia Debik*

09:00 [Keynote] Towards scalable explainable data mining and matching strategies in untargeted metabolomics

Justin van der Hooft

09:30 AutoDIP: An Automated Direct Infusion Platform for High-Throughput Metabolomics

Lucie Davidová

09:50 A Large-Scale LC-MS Approach to Identify Conjugated Bile Acids in Human Fecal Samples Using Untargeted Tandem Mass Spectrometry

Katja Salonen

10:10 Knowledge-guided analysis of postprandial metabolomics data using coupled tensor factorizations

Geert Roelof van der Ploeg

10:30

Break Fika

11:15

Session 4: Multi-omics

Chair: *Craig Wheelock*

11:15 Plasma multi-omics profiles linking body composition with the risks of diabetes and cardiovascular disease in adult women.

Enrique Almanza Aguilera

11:35 Sex-specific lipid-mediated mechanisms drive MASLD progression revealed by paired liver-blood multi-omics

Shashank Gupta

11:55 HRMS-based multi-omics integration strategy to map aging in *Caenorhabditis elegans*

Ivo Kwee

12:15 Metabolite-proteome interactions are pleiotropic disease drivers in kidney disease

Elina Kovalenko

12:35

Lunch

Program

Tuesday 29th September

- 14:00** **Session 5: Lipidomics**
Chair: *Katja Elgstøen*
- 14:00 [Keynote]** Lipidomics studies identify platelet phospholipids that drive coagulation and thrombosis
Valerie O'Donnell
- 14:30** Steroid hormones as mediators of endocrine disruptions related to cannabis consumption in young men
Mathieu Galmiche
- 14:50** Glutaminolysis Promotes Inflammation in White Adipose Tissue
Lynn Alaeddine
- 15:10** Targeted Spatial Metabolomics for Mapping Lipid Mediator-Related Inflammation in the Lung
Craig Wheelock
- 15:30** **Lightning talks** (Chair: *Ioanna Tsiara*)
- LT5/P4** *Petra Chalova* - Persistent reprogramming of host lipid metabolism following *Rickettsia akari* infection
- LT6/P46** *Anja Billing* - Beyond Glucose Transport: Off-Target Effects of SGLT2 Inhibitors Reveal Mitochondrial and Transporter Remodeling in Kidney Disease
- LT7/P78** *Barbora Pisklakova* - Pushing detection limits in clinical metabolomics: enhanced dynamic range scan mode across conventional and microsampling applications
- LT8/P82** *Natalia Remper* - Spatial metabolomics using capillary electrophoresis-mass spectrometry with hydrodynamic injection
- 15:40-17:00** **Poster session** Even numbered posters Including FIKA + coffee
- 17:45** **Tour at Gustavianum**
- 18:45** **Conference Dinner at Uppsala Castle**

Program

Wednesday 30th September

09:00	Session 6: Microbiome Metabolomics Chair: <i>Alex Dickens</i> 09:00 [Keynote] From Metabolite Discovery to Mechanism: Decoding Diet-Microbiota-Host Interactions in Early Life <i>Henrik Munch Roager</i> 09:30 PFAS and OH-PCB Exposure is Associated with an Altered Bile Acid Homeostasis in Multiple Sclerosis <i>Aina Vaivade</i> 09:50 Exploring human-associated Streptomyces as a source of novel bioactive metabolites using untargeted metabolomics <i>Tatána Gazárková</i> 10:10 Biogeographical landscape of microbiome derived lipids in the human colon and small intestine <i>Santosh Lamichhane</i> 10:30 [Gold Sponsor - Thermo Fisher Scientific] Software, hardware and intelligent acquisition strategies for guided unknown metabolite characterization using the Thermo Scientific™ Orbitrap™ Tribrid Apex Mass Spectrometer <i>Susan S. Bird</i>
10:45	Poster session with Fika All posters
11:40	Lunch
12:15	Removal of posters
12:30	Session 7: Spatial Metabolomics Chair: <i>Ingela Lanekoff</i> 12:30 [Plenary] Metrology for Mass Spectrometry Imaging <i>Josephine Bunch</i> 13:10 Spatial metabolic profiling of Patient-Derived Prostate Cancer adherent primary cell cultures by MALDI Mass Spectrometry Imaging <i>Juan Carlos Cabellos Guillem</i> 13:30 Spatial Glycomic and Peptidomic Phenotypes Define Primary and Recurrent Medulloblastoma <i>Pascal Kadej</i> 13:50 All the sterol signals are just cholesterol: Another study on In-source Fragmentation with MALDI-2 MSI <i>Maria K. Andersen</i>
14:10	Farewell and awards
14:30-16:30	MSI Get-together

Poster Information

Poster Number	Session	Title	Authors
P1	Clinical metabolomics	Whole-Grain Rye feeding Drives Tissue-Specific Host–Microbial Metabolic Responses Beyond Conventional Clinical Endpoints in a mouse model	<u>Ambrin Farizah Babu</u> , Marjo Tuomainen, Artur Sannikov, Tomi Tuomainen, Ville Koistinen, Topi Meuronen, Marko Lehtonen, Olli Kärkkäinen, Iman Zarei, Retu Haikonen, Anna Kårlund, Pasi Tavi, Kati Hanhineva
P2	Clinical metabolomics	PFAS Exposure Modulates Mitochondrial Susceptibility in Steatotic Hepatocytes	<u>João Marcos G. Barbosa</u> , Andi Alijagic, Anh Hoang Nguyen, Victor Castro-Alves, Lorane Valgueblasse, Matej Orešič, Tuulia Hyötyläinen
P3	Clinical metabolomics	Development and Validation of a UHPLC-MS/MS Method for Simultaneous Quantification of Dietary Sugars and Non-Nutritive Sweeteners in Human Urine	<u>Per-Olof Bergh</u> , Otto Savolainen, Rikard Landberg., Malin Barman
P4	Clinical metabolomics	Persistent reprogramming of host lipid metabolism following Rickettsia akari infection	<u>Petra Chalova</u> , Marco Quevedo Diaz, Ludovit Skultety, Andrej Kovac, Alex Dickens
P5	Clinical metabolomics	Linking Individual Urine Metabolomic Profiles to Postprandial Responses in the NUTRIOME Study	<u>Francesca Buccì</u> , Jan Stanstrup, Thorsten Gravert, Maria Persson, Jiaying Hu, Tessa Dronkers, Isabelle Lind, Anouk Gijbels, Lydia Afman, Stine Ulven, Rikard Landberg, Morten Danielsen, Henrik M. Roager
P6	Clinical metabolomics	Comparative Analysis of Bruker and Nightingale NMR Platforms for Metabolite and Lipoprotein Profiling	<u>Julia Debik</u> , Mélanie Nguyen, Trygve Andreassen, Ben Brumpton, Tone F. Bathen, Guro F. Giskeødegård
P7	Clinical metabolomics	Associations between circulating metabolites and incidence of breast, prostate, lung and colorectal cancers in the HUNT Study and UK Biobank	<u>Marion Denos</u> , Abhibhav Sharma, Bjørn Olav Åsvold, Alya G.A. Arham, George Davey Smith, Nicholas J. Timpson, Mari Løset, Ben Michael Brumpton, Julia Debik, Guro F. Giskeødegård

Poster Information

Poster Number	Session	Title	Authors
P8	Clinical metabolomics	Bridging global metabolomics from research to clinical practice: a hospital-derived plasma reference material for sustainable long-term quality control	Barbora PisklÁková, Aleš Kvasnička, Sander Johannes Thorbjørnsen Guttorm, Helge Rootwelt, Hanne Bendiksen Skogvold, Elise Sandås Sand, <u>Katja Benedikte Prestø Elgstøen</u>
P9	Clinical metabolomics	The effect of lifestyle, body composition, and medications on steroid profile in men undergoing prostate cancer diagnostics	<u>Ilia Evstafey</u> , Elja Heiskanen, Mikael Högerman, Matilda Kråkström, Matti Poutanen, Matej Orešič, Alex M. Dickens, Peter J. Boström
P10	Clinical metabolomics	Microsampling for Longitudinal Exposome and Postprandial Metabolomics Analysis	Anh Hoang Nguyen, Victor Castro-Alves, Marilena Retali, Joao Barbosa, Daniel Duberg, Gabriel Ahlm, Samira Prado, Maria Lentjes, Matej Orešič, <u>Tuulia Hyötyläinen</u>
P11	Clinical metabolomics	Environmental chemical exposure reshape metabolic pathways linked to disease severity in metabolic dysfunction–associated steatotic liver disease	<u>Tuulia Hyötyläinen</u> , Shashank Gupta, Andi Alijagic, Joao Barbosa, Jade Chaker, Maria Martin Grau, Daniel Duberg, Antonio J. Vidal-Puig, Stefania Carobbio, Ann Daly, Vlad Ratzu, Jorn Schattenberg, Elisabetta Bugianesi, Quentin M. Anstee, Matej Orešič
P12	Clinical metabolomics	Statin-Induced Metabolic Rewiring in Pancreatic Beta Cells: A ¹³ C-Glucose Tracing Study by Direct Infusion Mass Spectrometry	<u>Sk Ramiz Islam</u> , Rebecka Ayranci Dahlberg, Ingela Lanekoff
P13	Clinical metabolomics	Exercise Induced Changes in Metabolomic Profile of Breast Cancer Patients	<u>Līva Vita Kaufmane</u> , Dace Reihmane, Aija Kļaviņa, Kristaps Kļaviņš
P14	Clinical metabolomics	Targeted Plasma Metabolomics Identifies Two Distinct Metabolic Responses to Acute Exercise in Breast Cancer Patients	<u>Līva Vita Kaufmane</u> , Dace Reihmane, Aija Kļaviņa, Kristaps Kļaviņš

Poster Information

Poster Number	Session	Title	Authors
P15	Clinical metabolomics	Mass spectrometry-based metabolomics as a key tool for biomarker discovery in pancreatic diseases	Dariusz Kruszka , Vladyslav Dovhalyuk, Fan Yang, Ioanna Tsiara, Daniel Globisch
P16	Clinical metabolomics	The SIMPLER Way to Measure Vitamin D ₃ in Adipose Tissue: A High-Throughput LC–MS/MS Workflow	Per-Olof Bergh, Ranjeet Kumar , Jasmin Sebi, Rikard Landberg, Otto Savolainen
P17	Clinical metabolomics	Non-targeted metabolomics reveals changes in plasma metabolome after an oat-rich low-gluten diet with candidate biomarkers of oat consumption	Enni Mannila , Hany Ahmed, Ville Koistinen, Anna Kårlund, Marjukka Kolehmainen, Kaisa M. Linderborg, Kati Hanhineva
P18	Clinical metabolomics	Exploring Metabolite-Based Cluster Patterns Associated with Severity in Inflammatory Bowel Disease	Cezar Fabian Moise , Malene Revsbech Christiansen, Marie Vibeke Vestergaard, Tine Jess, Filip Ottosson
P19	Clinical metabolomics	Exploring Oral Microbiome–Metabolome Associations in Alström and Bardet–Biedl Syndromes Using Complementary Multi-Omics Approaches	Patrycja Mojsak , Ewa Zmyslowska-Polakowska, Sandra Chmielewska, Krzysztof Sołowiej, Tomasz Płoszaj, Sebastian Skoczylas, Julia Grzybowska-Adamowicz, Tomasz Pienkowski, Adam Kretowski, Agnieszka Zmyslowska, Michał Ciborowski
P20	Clinical metabolomics	NIST-Guided Evaluation of Reverse-Phase Columns for Integrated Exposomics and Metabolomics Profiling	Anh Hoang Nguyen , João Marcos G. Barbosa, Victor Castro-Alves, Leon Bock, Daniel Duberg, Matej Orešič, Tuulia Hyötyläinen

Poster Information

Poster Number	Session	Title	Authors
P21	Clinical metabolomics	Computational Metabolomics of Psychotropic Alkaloids: From Large Chemical Space to Neurodegenerative Disease Targets	Alexandros Polyzois , Christina Koufali, Nicola Milic, Konstantinos Gaitanis, Evgenia Panou, Aikaterini Sofia Pachygianni, Vasilis Kotsinis, Haralampos Tzoupis, Antreas Afantitis, Marina Kritsanida, Katerina Pliatsika, Olga Genilloud, Krystyna Skalicka-Woźniak, Barbara Budzyńska, Spyros Petrakis, Christos Petrou, Nektarios Aligianis, Nikolas Fokialakis
P22	Clinical metabolomics	Lipidomic Biomarkers for Mild Traumatic Brain Injury: Severity Assessment, Outcome Prediction, and Longitudinal Monitoring	Henrique C. Ribeiro , Ilias Thomas, Alex M. Dickens, Jussi P. Posti, Endre Czeiter, Daniel Duberg, Tim Sinioja, Matilda Kråkström, Isabel R. A. Retel Helmrich, Kevin K. W. Wang, Olli Tenovuo, Ewout W. Steyerberg, Andrew I. R. Maas, Andrés Büki, Tuulia Hyötyläinen, David K. Menon, Matej Orešič
P23	Clinical metabolomics	Sahlgrenska Clinical Urine Metabolomics Platform for Precision Diagnosis of Inborn Errors of Metabolism	Henrik Ryberg , Dimitra Lappa, Sara Ahmed, Parisa Emamy, Fredrik Sterky, Ann-Charlotte Almstrand, Moa Andresen Bergström, and, Yan Shen
P24	Clinical metabolomics	N-acetylcysteine induces arginine biosynthesis in Staphylococcus aureus without impairing growth	Theresa Schiemer , Claudia Siverino, Vimalnath Nambiar, Kristaps Klavins
P25	Clinical metabolomics	Deep multimodal metabolomic phenotyping of cerebrospinal fluid from almost 400 patients with cognitive and motoric neurological disorders	Jannik Sprengel , Sajitha Sadasivan, Vaishnavi Chidambaram, Claire Wegner, Sven W. Meyer, Matthew R. Lewis, Christoph Trautwein

Poster Information

Poster Number	Session	Title	Authors
P26	Clinical metabolomics	Untargeted Metabolomics for the Identification of Common Pan-Cancer Metabolic Signatures across Lung, Colorectal, and Ovarian Cancers	Efstathia Vouzaxaki , Ioanna Tsiara, Tobias Sjöblom, Daniel Globisch
P27	Clinical metabolomics	Metabolomic signatures associated with development of late effects in gynecological cancer survivors in the LETSGO trial	Feng Wang , Guro F. Giskeødegård, Julia Debik, Liv Cecilie Vestrheim Thomsen, Line Bjørge, Tone F. Bathen, Ingvild Vistad
P28	Clinical metabolomics	Plasma Metabolomics Differentiates Cardiometabolic Disease Progression from Endurance-Associated Lipid Remodeling	Pramod P. Wangikar , Sneha Rana, Nikita Savalsang, Avinash Vellore Sunder, Deepti Sahasrabuddhe
P29	Clinical metabolomics	An Open-Access Atlas Integrating a Decade of Metabolomics Research in Endometrial Cancer	Julia Zelkowska , Krzysztof Sołowiej, Michał Ciborowski, Joanna Godzien
P30	Lipidomics	MALDI-mass spectrometry imaging as a tool for Mapping Lesion Architecture in a Mouse Model of Multiple Sclerosis	Dominika Olešová , Silke Jansma Ilia Evstafev, Daniel Anthony Alex M Dickens
P31	Lipidomics	Tailoring the extraction: Advanced solvent strategies and Nitrogen Nanobubbles for spatial metabolomics in PA nano-DESI	Sireethorn Poomborplab , Ingela Lanekoff
P32	Lipidomics	Expanding the chemical space in shotgun lipidomics by selective liquid-liquid extraction	Varun V. Sharma , Ingela Lanekoff
P33	Microbiome metabolomics	Fecal SCFA dynamics reflect trophic-level succession in mammalian gut microbiota	Gaute Hovde Bø , Anna Michl, Tommaso Stefani, Synnøve Holmebukt, Oda Marie Aspenes Gundersen, Claus Klingenberg, Martin Schwarzer, Marek Sinkora, Marie Mardal, Terje Vasskog, Zdeněk Kameník, Veronika Kuchařová Pettersen

Poster Information

Poster Number	Session	Title	Authors
P34	Microbiome metabolomics	Chiral octadecanoid profiling reveals inflammatory signatures of the scalp microbiome	<u>Mathieu Galmiche</u> , Luca Antonio Plado, Alexandra Kendall, Anna Nicolaou, Thomas L. Dawson Jr., Craig E. Wheelock
P35	Microbiome metabolomics	Protein source shapes the gut microbiome and metabolome in growing rats under moderate protein restriction	<u>Eva Marie Himmelstrup Hansen</u> , Louise M. A. Jakobsen, Simon Bøge Riis, Dennis Sandris Nielsen, Nilay Büdeyri Gökgöz, Ifrat Tamanna, Matilda Kråkström, Santosh Lamichhane, Axel Kornerup Hansen, Hanne Christine Bertram
P36	Microbiome metabolomics	Integrating Untargeted Metabolomics and Bioactivity Screening to Explore of Cameroonian bacteria for Antimicrobials Leads Discovery	<u>Rufin Marie Toghueo Kouipou</u> , Aninda Mazumdar, Tommaso Stefani, Zdenek Kamenik
P37	Microbiome metabolomics	Chemical Metabolomics – New Chemical Biology Tools to Explore Microbiome Metabolism	<u>Leo Martin</u> , A. Torregrosa, I. Tsiara, W. Haberek, D. Globisch
P38	Microbiome metabolomics	Advancing Gut Microbiome Metabolomics: A Derivatization-Based Approach	<u>Anna Michl</u> , Tommaso Stefani, Ondřej Hřebíček, Martin Schwarzer, Zdeněk Kameník
P39	Microbiome metabolomics	Gut Microbiota Depletion Unmasks a Metabolomic Signature of the Gut-Liver Axis in Stress-Induced Visceral Hypersensitivity: Insights from a Pseudo-Germ-Free IBS-D Model	Nazila Dardmeh, <u>Ali A. Moazzami</u> , Masoud Yavarmenesh, Hamid Noorbakhsh
P40	Microbiome metabolomics	Untargeted metabolomics reveals microbial disruption, host tissue damage, and route-dependent vaccine protection during <i>Histomonas meleagridis</i> infection	<u>Anh Vu Nguyen</u> , Topi Meuronen, Atte Lihtamo, Soile Turunen, Kati Hanhineva, Olli Kärkkäinen
P41	Microbiome metabolomics	Metabolic impact of PFAS and environmental factors on breast milk and microbiota of mother-infant dyads	<u>Matej Orešič</u> , Santosh Lamichhane, Eric Triplett, Johnny Ludvigsson, Mikael Knip, Tuulia Hyötyläinen

Poster Information

Poster Number	Session	Title	Authors
P42	Microbiome metabolomics	Gut Microbiome Signatures for Cancer Risk: a HUNT4 Study	Nicole Quattrini , Claes Ohlsson, Kristian Hveem, May-Britt Tessem, Monica Engstrøm, Matteo Sangermani, Guro F. Giskeødegård
P43	Microbiome metabolomics	Gastrointestinal pH and Transit Time Are Associated with Circulating Microbial Metabolites Linked to Cardiometabolic Health	Mariyana Savova , Nicola Procházková, Lars O. Dragsted, Giorgia La Barbera, Henrik M. Roager
P44	Microbiome metabolomics	¹³ C flux ratio analysis with FRAPPPE reveals differences in metabolic fluxes between gut Bacteroidota and Escherichia coli	Daniel Torka , Bartosz Jan Bartmanski, Alexander Spiegelhalter, Inés Herrera-Gomez, Mariana Barcenas, Bernhard Drotleff, Michael Zimmermann, Maria Zimmermann-Kogadeeva
P45	Microbiome metabolomics	Integrating Spectroscopic and Genotypic Approaches for Alkaloid-Focused Metabolomics in Perennial Ryegrass	Rajat Vig , Simone Vassiliadis, Emma J Ludlow, Inoka Hettiarachchige, Kathryn M Guthridge, Simone J Rochfort
P46	Multiomics	Beyond Glucose Transport: Off-Target Effects of SGLT2 Inhibitors Reveal Mitochondrial and Transporter Remodeling in Kidney Disease	Anja M. Billing , Young Chul Kim, Elina Kovalenko, Vera C. Wulfmeyer, Volker Vallon, Markus M. Rinschen
P47	Multiomics	Untargeted metabolomics supports ferroptosis-associated changes induced by costunolide in Jurkat T cells	Yvonne Chrysostomidou , Iro Chaitoglou, Mårten Larsson, Louisa Brieskorn., Marina Korotkova, Ulf Göransson, Per-Johan Jakobsson, Helena Idborg
P48	Multiomics	Untargeted metabolome - microbiome correlation studies in Brassicaceae plants with alternative network visualization reveal an offset between N- and phenylpropanoid metabolism	Sándor Gonda , Tamás Plaszkó, Zsolt Szűcs, Zoltán Németh, Zoltán Cziáky

Poster Information

Poster Number	Session	Title	Authors
P49	Multiomics	Multiomics of fecal extracts reveals TAK-875-associated microbiome and biological changes in a rat model	Jayesh Kattla , Otto Savolainen, Matthew Daly, Lee Gethings, Richard Lock, David Heywood
P50	Multiomics	Ketogenic communication in polycystic kidney disease	Martine Knol, Elina Kovalenko , Sita Arjune, Maatje van Gastel, Jacob Torres, Thomas Weimbs, Anja M. Billing, Fatih Demir, Trine Züricho Lyksholm, Roman-Ulrich Müller, Markus M. Rinschen
P51	Multiomics	MARC2 deficiency rewires hepatic lipid metabolism and protects against GAN diet-induced liver injury: a sex-resolved multi-omics study	Patryk Kuropka , Monika Dzielak, Kazimiera Pyśniak, Katarzyna Unrug-Bielawska, Anita Tyl-Bielicka, Michał Mikula, Jerzy Ostrowski, Piotr Młynarz
P52	Multiomics	Integrative Metabolomic and Microbiome Profiling Identifies Candidate Biomarkers and Pathological Mechanisms Associated with Coronary Artery Disease	Enrique Ozcariz, Gabriel Vignolle, Iqra Yousaf, Maximilian Tscharre, Franz Xaver Roithinger, Guido Dallmann, Carmen Ludwig-Papst , Alice Limonciel, Christa Nöhammer, Klemens VierlingerJohn Doe
P53	Multiomics	Metabolomics and Proteomics Approaches to Identify New Marker of Nitrofurazone in Pig Hepatocytes Cell	Samia Mokh , Khaled El Hawari, Thibaut Leger, Pierre-Jean Ferron, Dominique-Hurtaud Pessel, Eric Verdon
P54	Multiomics	Multi-omics profiling of the enteral/parenteral nutrition transition in very preterm infants reveals coordinated monocyte, metabolome, and cytokine signatures	Mohit Panwar , Veronika Golubinskaya, Zhongjie Fu, Lois L. E. Smith, Carina Mallard, Karin Sävman, Ann Hellström, Anders K. Nilsson
P55	Multiomics	Elucidating the metabolic characteristics in the developing human liver through genome-scale metabolic modelling	Abhijit Paul , Jade Chaker, Peng Alex Liu, Samira Salihovic, Samuel Atkinson, Laetitia L Lecante, Frankie Alcock, Tuulia Hyötyläinen, Paul A Fowler, Matej Orešič

Poster Information

Poster Number	Session	Title	Authors
P56	Multiomics	Lipidomic and metabolic characterization of ocular retinoblastoma model and investigation of tumor targeting properties of PL3 peptide using LC-MS and MALDI-MSI	<u>Erika Pennanen</u> , Seppo Auriola, Mika Reinisalo, Marko Lehtonen
P57	Multiomics	High-throughput Single-cell Multi-OMICS Using Standard-flow LC and a Multi-reflecting TOF MS	<u>Otto Savolainen</u> , Jayesh Kattla, Matthew Daly, Lee Gethings, Richard Lock, David Heywood
P58	Multiomics	Spatial characterization of prostate cancer reveals antigen-presenting cancer-associated fibroblast- rich niches linked to disease aggressiveness	A. Sharma, J. Guillem, V. Bondeville, M. Wess, E. Sandholm, M. Rye, M. Andersen, G. Giskeødegård, <u>May-Britt Tessem</u>
P59	Multiomics	Integrative Multi-Omics Characterization of Radiomic Phenotypes in Prostate Cancer	Maximilian Wess, Selma Bozorgpana, Christine Aaserød Pedersen, Sverre Langørgen, Elise Midtbust, Mohammed R.S. Sunoqrot, Tone Frost Bathen, Maria K. Andersen, Morten Beck Rye, <u>May-Britt Tessem</u>
P60	Multiomics	¹³ C Fluxomics based on trusted LC-MS data	<u>Daria Volkova</u> , Nicholas Luke Cowie, Teddy Groves, Lars Keld Nielsen
P61	Multiomics	The abundance and therapeutic potential of lipid droplets in Multiple Myeloma	<u>Stefania Iliana Tziola</u> , Christine Dyrager, Berta Garrido-Zabala, Isabelle Holm, Torbjörn Karlsson, Fredrik Öberg, Andreas Lennartsson, Antonia Kalushkova, Helena Jernberg Wiklund, Patrick Nylund
P62	Multiomics	(Sub)cellular dynamics of arginine and lysine demethylation	<u>Xinyu Wang</u> , Hansjörg Habisch, Tobias Huberts, Tobias Madl
P63	New Frontiers in Metabolomics	Matrix Matters: Challenges of Universal Single-Phase Extraction Across Eight Murine Tissues and Serum	<u>Jacob Ahlberg Weidenfors</u> , Benedikt Zöhrer, Estelle Gilabert, Antonio Checa

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P64	New Frontiers in Metabolomics	Dietary Carbohydrate Quality Exposure and Dementia Risk in UK Biobank Cohort: A mediation Analysis of Plasma Metabolome.	<u>Enrique Almanza-Aguilera</u> , Nil Novau-Ferré, Luz Abril Herrera-Cazares, Javier Mateu Fabregat, Mònica Bulló
P65	New Frontiers in Metabolomics	A Comprehensive Lipidomics Workflow Combining Broad Screening, High-Resolution Annotation and Quantitative Validation	Per Jan-Wilhelm Larsson, Anton Ribbenstedt, Otto Savolainen, <u>Malin Barman</u>
P66	New Frontiers in Metabolomics	The EMBLEM project: Understanding the impact of endocrine-disrupting chemicals and their metabolites on the progression of MASLD	<u>Jade Chaker</u> , Andi Alijagic, João Marcos G. Barbosa, Daniel Duberg, Victor Castro-Alvez, Alex M. Dickens, Matej Orešič, Tuulia Hyötyläinen
P67	New Frontiers in Metabolomics	Uncovering the Hidden Chemical Diversity of <i>Alternaria alternata</i> via Dual-Polarity Molecular Networking Approach	<u>Nicola Dalla Valle</u> , Mar Garcia Aloy, Peter Robatscher, Sabine Oettl, Michael Oberhuber, Pietro Franceschi
P68	New Frontiers in Metabolomics	Towards an Automated Platform for Single-Cell Metabolomics	<u>Felix Friedrich</u> ; Ramiz Islam; Varun Sharma; Ingela Lanekoff
P69	New Frontiers in Metabolomics	Targeted NMR-based metabolomics in food science applications	<u>Hanna E. Röhnisch</u> , Tarja Wiegel, Johanna Östlund, Jaqueline Auer, Jan Eriksson, Maud Langton
P70	New Frontiers in Metabolomics	NMR-Based Quantification of Protein Methylation Uncovers Metabolic Control and Pathological Remodeling	<u>Tobias Huberts</u> , Hansjörg Habisch, Daniel Waltensorfer, Tobias Eisenberg, Tobias Madl
P71	New Frontiers in Metabolomics	Metabolome implications of prolonged solid-state fermentation of yellow peas with koji mold (<i>Aspergillus oryzae</i> RIB40)	<u>Sarvar A. Kakhkhorov</u> , Maaïke Braat, Nienke Braat, Han A.B. Wösten, Bekzod Khakimov
P72	New Frontiers in Metabolomics	Screening and analysis of off-flavour in potato protein from potato-starch side-stream	<u>Astrid Lund Paulsen</u> , Trine Kastrup Dalsgaard

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P73	New Frontiers in Metabolomics	Comparative UHPLC-HRMS/MS metabolomics reveals phylogenetic and seasonal patterns of polyphenol diversity across 55 oak species (<i>Quercus</i> L.)	<u>Niko Luntamo</u> , Ilari Kuukkanen, Suvi Vanhakylä, Marianna Manninen, Ian S. Pearce, Juha-Pekka Salminen
P74	New Frontiers in Metabolomics	A Condition-Rich LC–MS Retention Time Library	Marynka Ulaszewska, Vytautas Tamošiūnas, <u>Juraj Lutišan</u> , Erika Jarmalavičienė, Vilmantas Pedišius, Skirmantas Bieris, Rasheed Ishola, Gergő Bodnár, Gábor Zsemlye, Andrea Belicová, Viktor Vaňo, Michal Gramblička
P75	New Frontiers in Metabolomics	From Thousands of LC-MS features to reproducible biological signals: A Cross-platform Validation and Harmonization of LC-MS Untargeted Metabolomics Data for Precision Health Research	<u>Cecilia Martinez Escobedo</u> , Marina Armeni, Anton Ribbenstedt, Otto Savolainen, Frank Hu Rikard Landberg, Clary Clish, Clemens Wittenbecher
P76	New Frontiers in Metabolomics	Development and characterization of a multibarrel probe for nano-DESI-MS	<u>Armin Molanaie</u> , Lucie Davidová, Ingela Lanekoff
P77	New Frontiers in Metabolomics	Multi-criteria HPLC–HRMS/MS prioritization of CRAM-like features in the fungal exometabolome	<u>Mahsa Norouzi</u> , Anna Rosling, Alexander Craig, Jeffrey Hawkes
P78	New Frontiers in Metabolomics	Pushing detection limits in clinical metabolomics: enhanced dynamic range scan mode across conventional and microsampling applications	Aleš Kvasnička, <u>Barbora Pisklák</u> , Sander Johannes Thorbjørnsen Guttorm, Michał Kaczmarek, Helge Rootwelt, Hanne Bendiksen Skogvold, Elise Sandås Sand, Susan Bird, Katja Benedikte Prestø Elgstøen
P79	New Frontiers in Metabolomics	Accelerating Quantitative Urine Profiling by Low-field NMR Using a Paramagnetic Co-Solute	<u>Jacopo Patrussi</u> , Leonardo Tenori, Alessia Vignoli

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P80	New Frontiers in Metabolomics	Metabolomics of Antarctic Marine Ecosystems: Does Depth Shape Chemical Signatures in DOM and Biomass?	<u>Alexandros Polyzois</u> , Dionysia Rigatou, Eleni Kytinou, Dionysis Raitos, Nikolas Fokialakis, Triantafyllos Kaloudis
P81	New Frontiers in Metabolomics	A Validated LC-Orbitrap MS Workflow for Wheat Root Exudate Metabolomics	<u>Eka Dian Pusfitasari</u> , Camilla Lind Salomonsen, Josefine Bøgild Krogsgård, Wajeeha Shamsi, Yanyan Zhao, Simona Radutoiu, Marianne Glasius
P82	New Frontiers in Metabolomics	Spatial metabolomics using capillary electrophoresis-mass spectrometry with hydrodynamic injection	<u>Natalia Remper</u> , Ingela Lanekoff
P83	New Frontiers in Metabolomics	A New Pharmacometabolomics Capability at SciLifeLab Drug Discovery and Development: Supporting Decision-Making in Drug Discovery through Metabolomic Profiling	<u>Valentina Ramundi</u> , Ioanna Tsiara, Pawel Baranczewski, Daniel Globisch
P84	New Frontiers in Metabolomics	Comparison of plant-based proteins processing on metabolic profiling using an in vitro gut model.	<u>Sara Rocha</u> , Ehsan Shad, Topi Meuronen, Carlos Gómez-Gallego, Marjukka Kolehmainen, Kati Hanhineva
P85	New Frontiers in Metabolomics	LC-MS and sensory studies on the effect of thermal processing on pungent tasting compounds in black pepper (<i>Piper nigrum</i> L.)	<u>Nina Rometschl</u> , John Didzbalis, Matt Harrison, Michael Gigl, Corinna Dawid
P86	New Frontiers in Metabolomics	Development of a Targeted LC-MS/MS Platform for Broad-Spectrum PFAS Analysis and Exposomics Applications	<u>Jasmin Sebi</u> , Amir Saeid Mohammadi, Hatairad Phetsang
P87	New Frontiers in Metabolomics	Benchmarking Batch Effect Correction Methods for Large-Scale MALDI Mass Spectrometry Imaging of Heterogeneous Prostate Cancer Tissue	<u>Mithlesh P Singh</u> , Maria K Andersen, Ashkan Moradi, Kaisa Irene Lehti, Julia Debik, May-Britt Tessem

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P88	New Frontiers in Metabolomics	Decoding emerging microbial lipids and proteins in diet-liver-gut crosstalks	Ifrat Tamanna , Abhijit Paul, Helena Mannochio-Russo, Abdul Qadeer, Mirva Pääkkönen, Matilda Kråkström, Axel Kornerup Hansen, Xiaorui Zhao, OttoKauko, Hanne Christine Bertram, Santosh Lamichhane
P89	New Frontiers in Metabolomics	Exercise as a Modulator of the Human Milk Lipidome	Ankit S. Tanwar , Marta R. Moksnes, Emily R. Ashby, Maëliiss C.C. Lemoine, Guro F. Giskeødegård, Trine Moholdt
P90	New Frontiers in Metabolomics	Securing food supply through early metabolomic plant stress detection in vertical farming	Robin Thür , Lukas Deuring, Wolfgang Sobotzick, Claudia Luksch, Daniel Lanz, Timo D. Stark, Corinna Dawid
P91	New Frontiers in Metabolomics	Chemical Metabolomics – Combining Metabolomics and Chemical Biology Tools for the Discovery of Bioactive Microbiome Metabolites	Torregrosa Chinillach Alejandro, Martin Leo, Lin Weifeng, Theodorou Maria, Kessler Nikolas, Weinkouff Sofie, Barsch Aiko, De Gobba Cristian , Lewis Matthew R., Globisch Daniel
P92	New Frontiers in Metabolomics	Chemical Biology Tools in Metabolomics: Understanding the Gut Microbiome Metabolism in Primary Sclerosing Cholangitis	Alejandro Torregrosa-Chinillach , Peder R. Braadland, Johannes R. Hov, Daniel Globisch
P93	New Frontiers in Metabolomics	Biocyc Tools For Metabolomic And Multiomic Data Visualization	Suzanne Paley, Miles Trupp , Peter D. Karp
P94	New Frontiers in Metabolomics	Towards a standardized pipeline for genome-scale metabolic model contextualization	Shibani Veeraragavan , Shashank Gupta, Oveis Jamialahmadi, Rosellina M. Mancina, Daniel Duberg, Umberto V. Gentilucci, Federica Tavaglione, Vincenzo Bruni, Dario Tuccinardi, Tuulia Hyötyläinen, Stefano Romeo, Matej Orešič

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P95	New Frontiers in Metabolomics	Investigating the Metabolic Impact of Perfluorooctanoic acid (PFOA) on in-vitro Human CD4+ Regulatory T cell Differentiation by Carbon Labelled 1,2 ¹³ C-Glucose using Optimized LC-MS Platform and Lipidomics	Ziyu Yang , Roosa Kattelus, Matilda Kråkström, Alex Dickens, Matej Orešič, Riitta Lahesmaa
P96	New Frontiers in Metabolomics	Retention Time Prediction by Learning Thermodynamic Parameters with Graph Neural Networks	Gábor Zsemlye , Michal Gramblička, Juraj Lutišan, Marynka Ulaszewska
P97	Spatial Metabolomics	Ion-to-Image (i2i) v2: An improved mass spectrometry image analysis tool	Sajjad Rahmani Dabbagh , Robert Martinis, Varun V. Sharma, Gabor Toth, Orcun Goksel, Ingela Lanekoff
P98	Spatial Metabolomics	High-resolution nano-DESI mass spectrometry imaging to investigate metabolic alterations in the plaque and peri-plaque regions in Alzheimer's disease	Connie Petroeschovsky , Gijs Kooij, Ingela Lanekoff
P99	Spatial Metabolomics	Hypothesis-driven spatial metabolomics: an open-source toolkit for multimodal interrogation of bioactive lipid pathways	Matthew J. Smith , Alexandra B. Firsova, Christos Samakovlis, Craig E. Wheelock
P100	Nutritional Metabolomics	Urinary metabolomics revealed diet-specific responsiveness of the Dietary Metabotype Score in adults with overweight and obesity undergoing a controlled nutritional intervention	Giorgia Conta , Simona Rambousek, Jean-Philippe Godin, Maria Pilar Giner, Inez Trouwborst, Fabio Mainardi, Iaroslava Semenova, Anouk Gijbels, Lydia Afman, Raquel Van den Eynde, Gabby Hul, Ellen E. Blaak
P101	Multiomics	Process-resolved LC-MS metabolomics reveals chemical remodeling in an industrial multi-botanical beverage during processing and storage	Yuxin He , Tomasz Pawel Czaja, Bekzod Khakimov

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P102	Clinical metabolomics	Non-targeted lipidomic profiling reveals distinct molecular signatures in inflammatory bowel disease: discovery and validation in two inception cohorts	<u>Samira Salihovic</u> , Ove Øyås, Simen Hyll Hansen, Benita Salomon, Daniel Bergemalm, Henrik Hjortswang, Olle Grännö, Charlotte R.H. Hedin, Carl Eriksson, Kristian Holm, Tone B. Aabrekk, BIO-IBD consortium, IBSEN III consortium, Mauro D'Amato, Matej Orešič, Trond E. Detlie, Vendel A. Kristensen, Åsa V Keita, Maria K. Magnusson, Eleftheria Pertsinidou, Andre Franke, Carl M. Lindqvist, Lena Öhman, Marie Carlson, Johan D. Söderholm, Dirk Repsilber, Robert Kruse, Johannes R Hov, Tuulia Hyötyläinen, Marte L. Høivik, Jonas Halfvarson
P103	Clinical metabolomics	Individual Urinary Metabolic Phenotypes at High and Low Magnetic Field: A Dual-Field ¹ H NMR Study	<u>Maria Salobehaj</u> , Alessia Vignoli, Leonardo Tenori
P104	Clinical metabolomics	Non-invasive assessment of the skin barrier following treatment in persons with diabetes and xerotic feet	<u>Hanna Ivarsson</u> , Karin Borgström, Anna Eriksson, Tautgirdas Ruzgas, Johan Engblom, Stefan Acosta, Sebastian Björklund
P105	Clinical metabolomics	Faecal metabolomics to detect metabolic variability in children with cancer	Viktoria K Malnes, Gaute Hovde Bø, Vera Brekken, Nina Cathrin Belseth Robinson, Lars O. Baumbusch, Pål Trosvik, Eric de Muinck, Monica Munthe-Kaas, Terje Vasskog, <u>Veronika Kuchařová</u> <u>Pettersen</u>
P106	Clinical metabolomics	From Discovery to Quantification: Metabolomics Services at Chalmers Mass Spectrometry Infrastructure	<u>Tamilla Babayeva</u> , Rupender Kumari Katiyar, Daniel Brunnsåker, Per Larsson & Malin Barman

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P107	Lipidomics	Lipidomic Responses to Triclosan Highlight Bacterial Membrane Metabolism as a Therapeutic Target	Céline Dalle , Aurélie Herrero, Alexandra Dassonville-Klimpt, Pascal Sonnet, Nicolas Taudon
P108	New Frontiers in Metabolomics	Chiral derivatization reagents for multimodal LC-MS and fluorescence profiling of trace d-amino acids	Sabina Surovcová , Rudolf Andrys, Lucie Zemanová
P109	New Frontiers in Metabolomics	Improving Metabolic Flux Analysis for Isotopologue Ratio Measurements using a Novel Dual Ionization GC-EI&CI-TOFMS including a newly developed CI Source	Pegah Mousazadehfazeli, Christina Troyer, Steffen Bräkling, Sonja Klee, Arnd Ingendoh, Matthew R. Lewis, Cristian De Gobba , Teresa Steininger-Mairinger, Stephan Hann
P110	New Frontiers in Metabolomics	Expanding plasma metabolome coverage with enhanced dynamic range and iterative MS/MS acquisition on a modified Orbitrap hybrid mass spectrometer	Michał Kaczmarek , Bashar Amer, Rahul Deshpande, Susan S. Bird
P111	Lipidomics	Pushing the Limits of Structural Lipidomics: Enhanced Sensitivity and MS ³ -Driven Annotation on a Modified Orbitrap Tribrid Mass Spectrometer	Rahul Ravi Deshpande , Bashar Amer, Brandon Bills, Sunandini Yedla, Rafael D Melani, Susan S. Bird

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