

24th International Mass Spectrometry Conference

27 August – 2 September 2022, Maastricht, The Netherlands

FINAL PROGRAMME

Maastricht Exhibition &
Congress Centre (MECC)
Forum 100
6229 GV Maastricht
The Netherlands



PROGRAMME OVERVIEW IMSC 2022

Saturday 27-8-2022	Sunday 28-8-2022	Monday 29-8-2022	Tuesday 30-8-2022	Wednesday 31-8-2022	Thursday 1-9-2022	Friday 2-9-2022
	08:30	08:30	08:30	08:30	08:30	08:30
		Plenary: Prof. Stephen Blanksby	2020 Thomson Award lectures	Curt Brunnée award lectures Jochen Franzen award lecture	2022 Thomson Award lectures	AD Environmental MS - Earth and Space MS IM Miniaturization, Lab-on-a-chip, In Situ Applications LS Proteomics: Post-Translational Modifications and Crosstalk IM High Resolution Mass Spectrometry (Session B) LS Metabolomics (Session B)
Short courses (workshops)	Short courses (workshops)	Break	Coffee break	Coffee break	Coffee break	Coffee break
		AD Environmental MS: Geop. Water, Aerosols, VOCs and POCs IM Nibbling session on Ion Chemistry IM High Resolution MS (Session A) LS Translational MS – Clinical and Liquid Biopsies LS MS in Structural Biology - Crosslinking MS				
		Poster sessions (A) & coffee break	HC Young MS Scientists (Session A) IM Ion Spectroscopy, Physical and Chemical principles IM Data sciences in MS (Session B) LS Glycomics & Glycoproteomics (Session A) FP Biopharmaceuticals & Vaccines	AD Cultural Heritage and Conservation Science IM Ionization technologies LS Translational MS – Cancer and Immunology LS Proteomics: Top down LS Imaging MS - applications in Life Science & Health (Session A)	IM Ion Spectroscopy, Physical and Chemical principles (Session A) Separation & Hyphenation (Session A, Small Molecules) LS Metabolomics (Session A) LS Cross-omics, Data Integration and Bioinformatics for MS FP Biosimilars, Biobetters and Glycoengineering	IM Ambient Technologies and their applications LS Imaging MS - applications in Life Sciences & Health (Session B) FP Food, Nutrition & Agriculture HC JMS Awardees session
Short courses (workshops)	Short courses (workshops)	Lunch break + Vendor shows	Lunch break + Vendor shows	Lunch break + Vendor shows	Lunch break + Vendor shows	Lunch break + Vendor shows
		Poster sessions (A) & coffee break	Poster sessions (A) & coffee break	Poster sessions (B) & coffee break	Poster sessions (B) & coffee break	Plenary session: prof. Pieternev Levelt
		break	break	break	break	Closing ceremony
	Welcome Ceremony	PARALLELE IM Alternative Dissociation Methods IM Data Sciences in MS (Session A) LS Lipidomics LS Single Cell MS / in Cell MS FP Toxicology and Metabolism	PARALLELE AD Forensic Sciences IM Instrumentation development: Mass Analyzers LS MS in Structural Biology - Native MS, HDX-MS (Session A) IM Separation & Hyphenation (Session B, Proteins) LS Cellular Signaling Processes and MS in Systems biology	PARALLELE HC MS in the Netherlands (NVMS session) IM Imaging MS - Instrumentation and Methods LS Proteomics: Quantification BM Polymers and Synthetic Molecules (Session B) LS Glycomics & Glycoproteomics (Session B)	PARALLELE AD Homeland Security, Explosives and Environmental Monitoring IM Beyond Mass Spectrometry: Making MS obsolete LS Proteomics: Protein-Protein Interaction HC Young MS Scientists (Session B) LS MS in Structural Biology - Native MS, HDX-MS (Session B)	Closing reception
	Plenary session: prof. Paola Picotti prof. Bernd Bodenmiller	break	break	break	break	
	Welcome reception	FEMS Workshop Focus Group Native MS Focus Group Instrumentation	Focus Group Imaging MS Focus Group Forensics	Career workshop	Conference party/dinner	
	Affiliates dinner					

Session themes legend: *IM* Instrumentation and Methods *LS* Life Sciences & Health *FP* Food and (Bio)Pharma *BM* Biomaterials *AD* Mass Spectrometry across Disciplines *HC* Hors Catégorie

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Saturday 27 August 2022

Short Courses day 1

09:00 Start short courses day 1
10:30 Morning break
12:30 Lunch
15:00 Afternoon break
17:00 End of short courses day 1

Short course 1 - Ion Mobility Spectrometry

Lecturers: Valerie Gabelica & Tim Causon

Duration of the course: 8 hours (Saturday afternoon & Sunday)

Short course 2 - Advanced MS data Analysis

Lecturers: Pratik Jagtap & Tim Griffin

Short course 3 - Imaging Mass Spectrometry

Lecturers: Martina Marchetti-Deschman & Eva Cuypers

Short course 4 - Tandem Mass Spectrometry

Lecturers: Vicki Wysocki & Ljiljana Pasa-Tolic

Short course 5 - Cross-linking Mass Spectrometry

Lecturers: Juri Rappsilber & Pascal Albanese

Short course 6 - Lipidomics

Lecturers: Steve Blanksby & Michal Holcapek

Duration of the course: 1 day (Saturday only | 09.00 – 16.00 hours)

Short course 7 - Biopharma & Native MS

Lecturers: Sarah Cianferani & Valentina D'Atri

Short course 8 - Glycomics

Lecturers: Guinevere Lageveen-Kammeijer & Noortje de Haan

Short course 9 - Clinical Proteomics

Lecturers: Sander Piersma & Irene Bijnsdorp

Duration of the course: 8 hours (Saturday afternoon & Sunday)



Sunday 28 August 2022

Short Courses day 2

09:00 Start short courses day 2

10:30 Morning break

12:30 Lunch

15:00 End short courses day 2

Short course 1 - Ion Mobility Spectrometry

Lecturers: Valerie Gabelica & Tim Causon

Duration of the course: 8 hours (Saturday afternoon & Sunday)

Short course 2 - Advanced MS data Analysis

Lecturers: Pratik Jagtap & Tim Griffin

Short course 3 - Imaging Mass Spectrometry

Lecturers: Martina Marchetti-Deschman & Eva Cuypers

Short course 4 - Tandem Mass Spectrometry

Lecturers: Vicki Wysocki & Ljiljana Pasa-Tolic

Short course 5 - Cross-linking Mass Spectrometry

Lecturers: Juri Rappsilber & Pascal Albanese

Short course 7 - Biopharma & Native MS

Lecturers: Sarah Cianferani & Valentina D'Atri

Short course 8 - Glycomics

Lecturers: Guinevere Lageveen-Kammeijer & Noortje de Haan

Short course 9 - Clinical Proteomics

Lecturers: Sander Piersma & Irene Bijnsdorp

Duration of the course: 8 hours (Saturday afternoon & Sunday)

Short course 10 - Computational Proteomics

Lecturers: David Tab & Quentin Gai Gianetto

Duration of the course: 1 day (Sunday only | 09.00 – 15.00 hours)



Sunday 28 August 2022

Conference Programme

16:30 – 17:00 Welcome ceremony in the plenary room – Auditorium 1-2

17:00 – 17:30 **Plenary: #848 - Proteomes in 3D**

Prof. Paola Picotti
*ETH Zürich, Institute of
Molecular Systems
Biology*

17:30 – 18:00 **Plenary: #807 - Highly multiplexed imaging of
tissues with subcellular resolution by imaging mass
cytometry**

Prof. Bernd Bodenmiller
*University of Zürich, ETH
Zürich*

18:00 – 20:30 Welcome reception in the exhibition area

19:00 – 21:30 Affiliates dinner



Monday 29 August 2022

08:30 – 09:15 Plenary session in the plenary room – Auditorium 1-2

08:30 – 09:15 **Plenary: #804 - Getting our fats straight: an international adventure in isomer-resolved lipidomics**

Prof. Stephen Blanksby
Queensland University of Technology

09:15 – 09:30 Coffee break
09:30 – 11:30 Parallel sessions (morning)
11:30 – 13:00 Poster sessions (A) & coffee break
13:00 – 14:00 Lunch break & vendor shows
14:00 – 15:30 Poster sessions (A) & coffee break
15:30 – 17:30 Parallel sessions (afternoon)
17:30 – 18:00 Break
18:00 – 20:30 FEMS workshop
IMSF Focus group: Native MS
IMSF Focus group: Instrumentation



Parallel sessions 09:30 – 11:30

Environmental MS: Geo, Water, Aerosols, VOC's and POC's

Theme: Mass spectrometry across disciplines
Chair: Anneli Krüve, *Stockholm University*

Presentations:

09:30 – 09:50	Keynote: #851 A (blue) revolution: high-resolution mass spectrometry applications in the (drinking) water sector	Frederic Béen <i>KWR Water Research Institute</i>
09:50 – 10:06	Oral: #22 Cheminformatics and High Resolution Mass Spectrometry in Historical Exposomics of the Minette Region	Dagny Aurich <i>University of Luxembourg</i>
10:06 – 10:22	Oral: #156 Polyethylenoxide in the aquatic environment – development and optimisation of a quantitative trace-analytical method and first occurrence data	Frances Pauelsen <i>JLU Gießen</i>
10:22 – 10:38	Oral: #196 Metaproteomics: a new tool in wastewater surveillance	Claudia Tugui <i>Delft University of Technology</i>

10:38 – 10:54	Oral: #704 Screening of transformation products and intermediates of emerging contaminants from simulated aerobic degradation tests coupled with HPLC-MSⁿ	Federico Ivanic <i>Institute of Environmental Research and Engineering, UNSAM-CONICET</i>
10:54 – 11:10	Oral: #357 The Identification of Thyroid Hormone System Disrupting Compounds in Human Cord Blood Samples using Effect-Directed Analysis	Jeroen Meijer <i>VU Amsterdam</i>
11:10 – 11:30	Panel discussion with speakers	

Parallel sessions 09:30 – 11:30

Nico Nibbering session on Ion Chemistry

Theme: Instrumentation and methods
Chair: Michael Gross, *Washington University in St Louis*

Presentations:

09:30 – 09:50	Keynote: #100 Reaction Acceleration in Microdroplets: Scope and Mechanisms	Graham Cooks <i>Purdue University</i>
09:50 – 10:06	Oral: #5 The First Mass Analyzer in the Netherlands	Albert Heck <i>Utrecht University</i>
10:06 – 10:22	Oral: #94 Excited state N-atoms in transform aromatic hydrocarbons into N heterocycles in a low-temperature plasma	Renato Zenobi <i>ETH Zürich</i>
10:22 – 10:38	Oral: #113 Synthesizing New Molecules in the Condensed Phase Using Gaseous Molecular Fragment Ions	Jonas Warneke <i>Leipzig University</i>
10:38 – 10:54	Oral: #228 Cyclic peptide protomers detection in the gas phase: impact on CCS measurement and fragmentation patterns	Edwin De Pauw <i>University of Liege</i>
10:54 – 11:10	Oral: #164 Unravelling the peptides' aggregation mechanism: The challenge of IM-MS instrumentation to probe heterogeneous and fragile processes	Agathe Depraz Depland <i>VU Amsterdam</i>
11:10 – 11:30	Panel discussion with speakers	

Parallel sessions 09:30 – 11:30

High Resolution MS - Session A

Theme: Instrumentation and methods
Chair: Yury Tsybin, *Spectroswiss*

Presentations:

09:30 – 09:50	Keynote: #571 Towards spatial and cell resolved omics using advanced FTMs approaches	Ljiljana Pasa-Tolic <i>PNNL</i>
09:50 – 10:06	Oral: #498 High-accuracy MS of exotic atomic nuclei by phase-imaging ion-cyclotron-resonance and multi-reflection time-of-flight MS at SHIPTAP and ISOLTRAP	Lutz Schweikhard <i>University of Greifswald</i>

10:06 – 10:22	Oral: #690 Insights into surprisingly boring lives of high-mass ions by chasing single particles using segmented Fourier Transform	Tobias P. Wörner <i>Thermo Fisher Scientific</i>
10:22 – 10:38	Oral: #601 Application of OCULAR approach on 15 T solariX XR for bitumen analysis	Benedict Gannon <i>University of Warwick</i>
10:38 – 10:54	Oral: #660 Analysis of supercomplex mixtures by multi-step Liquid Chromatography and online High-Resolution Mass Spectrometry	Jens Dreschmann <i>Max-Planck-Institute for Kohlenforschung</i>
10:54 – 11:10	Oral: #688 Super-resolutive genetic algorithm for improved FT-ICR MS resolution	Marc Haegelin <i>CNRS</i>
11:10 – 11:30	Panel discussion with speakers	

Parallel sessions 09:30 – 11:30

Translational MS – Clinical and Liquid Biopsies

Theme: Life Sciences & Health
Chair: Leon Reubsaet & Maarten Altelaar, *Utrecht University*

Presentations:

09:30 – 09:50	Keynote: #795 Two Sides of Precision Medicine: Health Surveillance	Jennifer van Eyk <i>Cedar Sinai Medical Center</i>
09:50 – 10:06	Oral: #13 In situ tissue pathology from spatially encoded mass spectrometry classifiers visualized in real time through augmented reality	Arash Zarrine-Afsar <i>University of Toronto</i>
10:06 – 10:22	Oral: #166 Automation of the filter-aided sample preparation (FASP) protocol using the robotic platform biomek i7 with focus on plasma samples preparation	Dana Hein <i>University Medical Center Mainz</i>
10:22 – 10:38	Oral: #400 Proteoform-reaction-monitoring (PFRM) and the discovery of biomarker candidates in liver transplanted recipients	Rafael Melani <i>Northwestern University</i>
10:38 – 10:54	Oral: #716 LC-MS analyses of purified circulating plasma exosomes from patients infected with Mycobacterium tuberculosis revealed disease state-dependent protein and lipid profiles	Stefan Kalkhof <i>Fraunhofer IZI Leipzig</i>
10:54 – 11:10	Oral: #728 A Metaproteomics Bioinformatics Workflow to study host -microbe dynamics in clinical samples	Pratik Jagtap <i>University of Minnesota</i>
11:10 – 11:30	Panel discussion with speakers	

Parallel sessions 09:30 – 11:30

MS in Structural Biology - Crosslinking MS

Theme: Life Sciences & Health
Chair: Tara Pukala, *University of Adelaide* & Fabio Gozzo, *University of Campinas*

Presentations:

09:30 – 09:50	Keynote: #... Avenues into in-cell structural biology via crosslinking mass spectrometry and AlphaFold	Juri Rappsilber <i>TU Berlin</i>
09:50 – 10:06	Oral: #15 Combining cross-linking mass spectrometry and complexome profiling facilitates the selective analysis of protein complexes	Johannes Hevler <i>Utrecht University</i>
10:06 – 10:22	Oral: #42 Structural mass spectrometry approaches to decipher interactions within the ~380 kDa RUVBL1/RUVBL2/DPCD complex	Sarah Cianferani <i>CNRS</i>
10:22 – 10:38	Oral: #192 Fast FluoroAlkylation of Proteins (FFAP): A Novel Cross-linking Strategy for Aromatic Amino Acids	Zdenek Kukacka <i>The Czech Academy of Sciences</i>
10:38 – 10:54	Oral: #252 A new trifunctional cross-linker facilitating the mapping of membrane proteins for in vivo proteome-wide studies	Lucienne Nouchikian <i>Mass Spectrometry for Biology Institut Pasteur</i>
10:54 – 11:10	Oral: #395 Survival strategies in the deep - structural dynamics of a hyperthermophilic PEP-synthase	Pascal Albanese <i>Utrecht University</i>
11:10 – 11:30	Panel discussion with speakers	



Parallel sessions 15:30 – 17:30

Alternative Dissociation Methods

Theme: Instrumentation and methods
Chair: Vicki Wysocki, *University of Arizona*

Presentations:

15:30 – 15:50	Keynote: #20 Mass spectrometry based photodissociation strategies for illuminating the ‘hidden’ diversity and structural complexity of the lipidome	Gavin Reid <i>University of Melbourne</i>
15:50 – 16:06	Oral: #44 The exclusive ion activation arsenal of the Omnitrap platform illustrated – applications in top down and bottom up proteomics	Dimitrios Papanastasiou <i>Fasmatech Science & Technology</i>
16:06 – 16:22	Oral: #45 Electron-induced and electron-capture dissociation in data-dependent acquisition mode performed on the Omnitrap platform coupled to an Orbitrap mass spectrometer	Mariangela Kosmopoulou <i>Fasmatech SA</i>
16:22 – 16:38	Oral: #66 Coupling ECD with IMS on a waters quadrupole-IMS-TOF mass spectrometer	Marcus Macht <i>MS Vision</i>
16:38 – 16:54	Oral: #240 Electron capture dissociation on a cyclic ion mobility enabled Q-ToF mass spectrometer provides higher structural resolution in HDX-MS experiments	Owen Cornwell <i>Waters</i>
16:54 – 17:10	Oral: #398 Electron Induced Fragmentation of Adduct Ions and Collision Induced Fragmentation of Radical Cations for Structural Elucidation of Metabolites by LC-MS/MS	G�rard Hopfgartner <i>University of Geneva</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Data sciences in MS/AI/Chemometrics/identification/modelling - Session A

Theme: Instrumentation and methods
Chair: Benjamin Balluff, *University of Maastricht*

Presentations:

15:30 – 15:50	Keynote: #774 Empowering large chemical knowledge bases for exposomics: pubchemlite meets metfrag	Emma Schymanski <i>University of Luxembourg</i>
15:50 – 16:06	Oral: #687 Development of diagnostic tests for COVID-19 using MALDI(+) FR-ICR MS combined with machine learning	Wanderson Rom�o <i>Federal Institute of Esp�rito Santo</i>
16:06 – 16:22	Oral: #144 Relational Graph Convolutional Network for Robust Mass Spectrum Classification	Rapha�l La Rocca <i>Universit� de Li�ge</i>
16:22 – 16:38	Oral: #259 Universal Fragmentation Model for Tandem Mass Spectrometry Based Molecular Structure Elucidation	Bela Paizs <i>The Rosalind Franklin Institute</i>

16:38 – 16:54	Oral: #124 MSclassifR: an R package for supervised classification of mass spectra with machine learning methods	Alexandre Godmer <i>Sorbonne université</i>
16:54 – 17:10	Oral: #53 Modular antibody de novo sequence analysis using multi-tier proteomics data	Sebastiaan de Graaf <i>Utrecht University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Lipidomics

Theme: Life Sciences & Health
Chair: Erin Baker, *NC state University* & Anne Kathrin Bendt,

Presentations:

15:30 – 15:50	Keynote: #765 Lipid imaging using nanospray desorption electrospray ionization (nano-desi) mass spectrometry	Julia Laskin <i>Purdue University</i>
15:50 – 16:06	Oral: #221 Dysregulation of blood lipidome in various types of cancer: the way towards early cancer screening by UHPSFC/MS	Michal Holčapek <i>University of Pardubice</i>
16:06 – 16:22	Oral: #246 Characterisation of cardiolipins in mitochondria of HeLa cells by HPLC-MS/MS	Vera Schwantes <i>University of Münster</i>
16:22 – 16:38	Oral: #309 MS-based targeted profiling of oxylipins to understand the evolution and severity of COVID-19	Denise Biagini <i>University of Pisa</i>
16:38 – 16:54	Oral: #338 Characterizing Content and Localization of Complex Ganglioside Phenotypes in a GBA Model of Parkinson's Disease by Orthogonal High Resolution Ion Mobility Mass Spectrometry and Mass Spectrometry Imaging	Kim Ekroos <i>Lipidomics Consulting Ltd.</i>
16:54 – 17:10	Oral: #638 Cerebral organoids model system for neurological diseases	Zdenek Spacil <i>Masaryk University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Single cell MS and in cell MS

Theme: Life Sciences & Health
Chair: Kristin Burnum-Johnson, *Pacific Northwest National Laboratory*

Presentations:

15:30 – 15:50	Keynote: #792 Exploring functional protein covariation across single cells	Nikolai Slavov <i>Northeastern University</i>
15:50 – 16:06	Oral: #563 Single Cell Quantitative Proteomics	David Goodlett <i>University of Victoria</i>

16:06 – 16:22	Oral: #172 Mass spectrometry imaging and profiling of single cells: application in breast cancer research	Eva Cuypers <i>M4i - University Maastricht</i>
16:22 – 16:38	Oral: #200 Analyzing single cell metabolomic flux in tissue	Gangqi Wang <i>Leiden University Medical Center</i>
16:38 – 16:54	Oral: #170 Single-cell MALDI mass spectrometry imaging enables an in-depth view of molecular heterogeneity in cell cultures	Jan Schwenzfeier <i>Institute of Hygiene</i>
16:54 – 17:10	Oral: #479 Single cell multimodal imaging for evaluation of cellular metabolism in human focal epilepsy	Isabeau Vermeulen <i>M4i - University Maastricht</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Toxicology and Metabolism

Theme: Food and (Bio)Pharma
Chair: Adrian Covaci, *University of Antwerp* & Jeroen Kool, *VU Amsterdam*

Presentations:

15:30 – 15:50	Keynote: #421 Mass spectrometry in venom chemistry	Manjunatha Kini <i>National University of Singapore</i>
15:50 – 16:06	Oral: #377 Molecular Networking Approach with MetWork webserver for drug annotation : Building an artificial intelligence in silico database of all commercialized drugs in France as an innovative and ideal addition for clinical toxicology	Emmanuel Bourgoigne <i>APHP</i>
16:06 – 16:22	Oral: #232 Hyphenation of Electrochemistry and Mass Spectrometry for the Simulation of Metabolic Processes and the Generation of Stable Isotope Labelled Metabolite Standards	Valentin Göldner <i>University of Münster</i>
16:22 – 16:38	Oral: #634 A “chemical toolbox” for the generation of metabolite-like products of new psychoactive substances	Peng Che <i>VU Amsterdam</i>
16:38 – 16:54	Oral: #535 Multiomics Pipeline Reveals Alpha-Ketoglutarate as a Countermeasure for VX Organophosphate Poisoning	Phillip Mach <i>LANL</i>
16:54 – 17:10	Oral: #447 Compound Degradation studies for a wide range of molecule sizes and HRMS data source	Ismael Zamora <i>Lead Molecular Design</i>
17:10 – 17:30	Panel discussion with speakers	



Tuesday 30 August 2022

- 08:30 – 10:00 2020 Thomson Award ceremony and lectures
 10:00 – 11:00 Coffee break
 11:00 – 13:00 Parallel sessions (morning)
 13:00 – 14:00 Lunch break & Vendor shows
 14:00 – 15:30 Poster sessions (A) & coffee break
 15:30 – 17:30 Parallel sessions (afternoon)
 17:30 – 18:00 Break
 18:00 – 20:30 IMSF Focus group: Imaging MS
 IMSF Focus group: Forensics



Parallel sessions 11:00 – 13:00

Young MS Scientists - Session A

Theme: Young MS Scientists
Chair: Guinevere Lageveen-Kammeijer, *Leiden University Medical Center* & Karli Reiding, *Netherlands Proteomics Centre*

Presentations:

11:00 – 11:16	Keynote: #694 Building a Multimodal Molecular Atlas of the Human Kidney	Elisabeth Neumann <i>Vanderbilt University</i>
11:16 – 11:32	Oral: #546 MALDI Imaging Mass Spectrometry Evaluation of Glycans and Extracellular Matrix Proteins as Biomarkers of Renal Cell Carcinoma Immunotherapy Response	Colin McDowell <i>Medical University of South Carolina</i>
11:32 – 11:48	Oral: #415 Understanding the ability of hop terpene biotransformation to enhance beer flavour using proton transfer reaction-time of flight-mass spectrometry (PTR-TOF-MS)	Rebecca Roberts <i>University of Otago</i>
11:48 – 12:04	Oral: #540 The characterisation of charge location resolved precursor ions using ion mobility tandem mass spectrometry	Anirudh Sharma <i>Teesside University</i>
12:04 – 12:20	Oral: #606 Capillary electrophoresis coupled to TIMS-TOF mass spectrometry using the nanoceasy interface	Jasmin Schairer <i>Aalen University</i>
12:20 – 12:36	Oral: #469 Yield improvement in secondary ion mass spectrometry using chemically reactive gas cluster ion beams	Matija Lagator <i>The University of Manchester</i>
12:36 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Ion Spectroscopy, Physical and Chemical principles underlying MS - Session B

Theme: Instrumentation and methods
Chair: Isabelle Compagnon, *University of Lyon*

Presentations:

11:00 – 11:16	Oral: #691 Lightfootprinting proteins	Perdita Barran <i>The University of Manchester</i>
11:16 – 11:32	Oral: #733 Changing the Temperature During Resonant Excitation in Commercial Quadrupole Ion Traps	Thomas Neugebauer <i>Bruker Daltonics</i>
11:32 – 11:48	Oral: #345 Native MS for interactions and gas-phase chemistry of metallopeptides and metalloproteins	Sarah Brandner <i>Technische Universität Darmstadt</i>
11:48 – 12:04	Oral: #473 Cryogenic Infrared Ion Spectroscopy of Isomeric Lipids	Carla Kirschbaum <i>Freie Universität Berlin</i>
12:04 – 12:20	Oral: #523 Conformation-selective infrared ion spectroscopy on a TIMS enabled FT-ICR MS platform	Kas Houthuijs <i>Radboud University Nijmegen</i>
12:20 – 12:36	Oral: #86 The Gas-Phase Host-Guest Chemistry of [n]Cycloparaphenylenes	Markus Freiberger <i>Friedrich-Alexander-University Erlangen-Nürnberg</i>
12:36 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Data sciences in MS/AI/Chemometrics/identification/modelling - Session B

Theme: Instrumentation and methods
Chair: Magnus Palmblad, *University of Leiden*

Presentations:

11:00 – 11:16	Oral: #445 Detection strategies for conjugate metabolites with tandem mass spectrometry data in human biomonitoring and wastewater-based epidemiology	Carolin Huber <i>Helmholtz Center for Environmental Research - UFZ</i>
11:16 – 11:32	Oral: #495 Can we predict the preference for adduct formation in electrospray?	Stepan Stepanovic <i>University of Geneva</i>
11:32 – 11:48	Oral: #130 Naive Bayes classification model for isotopologue detection in LC-HRMS data	Denice van Herwerden <i>University of Amsterdam</i>
11:48 – 12:04	Oral: #391 M2aia extension for accessible annotation creation and annotation transfer for mass spectrometry imaging in multi-modal setups	Jonas Cordes <i>Hochschule Mannheim University of Applied Sciences</i>

12:04 – 12:20	Oral: #93 Workflow based on TIC alignment for retrospective analysis of low-resolution on-line SPE-GC-MS data	Nienke Meekel <i>KWR Water Research Institute</i>
12:20 – 12:36	Oral: #379 Deconvolution-free feature extraction and annotation via time-domain transient modelling in orbitrap FTMS for biopharma applications	Yury Tsybin <i>Spectroswiss</i>
12:36 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Glycomics & Glycoproteomics - Session A

Theme: Life Sciences & Health
Chair: Katalin F. Medzihradzky

Presentations:

11:00 – 11:20	Keynote: #786 Negotiating the Maze of O-glycosylation	Zsuzsanna Darula <i>Hungarian Centre of Excellence for Molecular Medicine</i>
11:20 – 11:36	Oral: #117 Determination of O-acetyl positions on sialic acids with ion mobility-mass spectrometry	Kevin Hooijschuur <i>Utrecht University</i>
11:36 – 11:52	Oral: #485 Mucins O-glycomics by high resolution ion mobility-mass spectrometry	Leila Bechtella <i>Freie Universität Berlin</i>
11:52 – 12:08	Oral: #559 Antibody Array Based N-glycan Imaging of Captured Immune Cells	James Dressman <i>Medical University of South Carolina</i>
12:08 – 12:24	Oral: #630 Establishing structural MS to understand protein glycosylation in neurological function and disease	Melissa Bärenfänger <i>VU Amsterdam</i>
12:24 – 12:40	Oral: #722 Deciphering sialic acid pathway regulation via novel in-depth multi-omics approach in tissue-specific human models	Merel Post <i>Radboud University Medical Center</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Biopharmaceuticals & Vaccines

Theme: Food and (Bio)Pharma
Chair: Eef Dirksen, *Byondis B.V.* & Koen Sandra, *Research Institute for Chromatography*

Presentations:

11:00 – 11:20	Keynote: #816 Fast and automated characterization of monoclonal antibody minor variants from cell cultures by combined Protein-A and multi-dimensional LC/MS methodologies	Cinzia Stella <i>Genentech</i>
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11:20 – 11:36	Oral: #84 Mass spectrometry as a key technique for the characterization of bispecific monoclonal antibodies	Bastiaan Duivelshof <i>University of Geneva</i>
11:36 – 11:52	Oral: #185 Expanding functional antibody characterization to proteoforms: affinity CE-MS for antibody – FcRs binding assessment	Elena Dominguez Vega <i>Leiden University Medical Center</i>
11:52 – 12:08	Oral: #188 Top-down mass spectrometry: a very promising tool to follow biopharmaceuticals and their biotransformation products in plasma	Jonathan Dhenin <i>Sanofi-Aventis</i>
12:08 – 12:24	Oral: # Abstract withdrawn – to be replaced	
12:24 – 12:40	Oral: #522 Characterisation of oligonucleotides by tandem MS and IMS in negative ion ESI	Fabien Hannauer <i>University of Southampton</i>
12:40 – 13:00	Panel discussion with speakers	



Parallel sessions 15:30 – 17:30

Forensic Sciences

Theme: Mass spectrometry across disciplines
Chair: Isabelle Kohler, *Centre for Analytical Sciences Amsterdam*

Presentations:

15:30 – 15:50	Keynote: #7 Mass spectrometry in sports drug testing – advances and challenges	Mario Thevis <i>German Sport University Cologne</i>
15:50 – 16:06	Oral: #62 Steroid profiling in blood as an efficient approach in doping control analyses	Tobias Langer <i>Swiss Laboratory for Doping Analyses</i>
16:06 – 16:22	Oral: #212 Elucidation of chlorinated tyrosine adducts in blood plasma as selective biomarkers of chlorine exposure	Mirjam Bruin-Hoegée <i>University of Amsterdam</i>
16:22 – 16:38	Oral: #285 Trapped ion mobility mass spectrometry for the rapid separation and identification of positional isomers in designer-drug mixtures	Hany Majeed <i>VU Amsterdam</i>
16:38 – 16:54	Oral: #544 Untargeted mass spectrometry methods for the profiling of Ricinus communis and abrus precatorius seed extracts – a forensic approach	Lisa Scharrenbroch <i>Bundeskriminalamt</i>
16:54 – 17:10	Oral: #14 Validation of a LC-ESI/MS/MS method for simultaneous measurement of eighteen cannabinoids in plant materials of hemp	Liguo Song <i>Western Illinois University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Instrumentation development: Mass Analyzers

Theme: Instrumentation and methods
Chair: Alexander Makarov, *Thermo Fisher Scientific (Bremen)*

Presentations:

15:30 – 15:50	Keynote: #425 Advances in ion optical design of multi-pass time-of-flight mass spectrometers	Mikhail Yavor <i>Institute for analytical instrumentation RAS</i>
15:50 – 16:06	Oral: #169 A high-performance quadrupole mass filter with novel operation principles	Emil Traykov <i>IPHC/CNRS</i>
16:06 – 16:22	Oral: #481 Combining Ultraviolet Photodissociation and 2-Dimensional Mass Spectrometry	Peter O'Connor <i>University of Warwick</i>
16:22 – 16:38	Oral: #28 A method for the structural analysis and time-resolved imaging of biomacromolecular assemblies in mass spectrometry using UV photodissociation and timepix detector	Anjusha Mathew <i>M4i Institute, Maastricht University</i>
16:38 – 16:54	Oral: #678 Probing the stability of the β-hairpin structure of GB1P in the gas phase of coupling mass spectrometry and fluorescence spectroscopy	Lukas Benzenberg <i>ETH Zürich</i>
16:54 – 17:10	Oral: #464 Single-particle mass analysis applied to antibody-antigen complexes, intact ribosomes and viruses using Orbitrap-based charge detection mass spectrometry	Szu-Hsueh Lai <i>Utrecht University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

MS in Structural Biology - Native MS, HDX-MS -Session A

Theme: Life Sciences & Health
Chair: Charlotte Uetrecht, *CSSB, Centre for Structural Systems Biology*

Presentations:

15:30 – 15:50	Keynote: #785 Native mass spectrometry under “close-to-life” conditions	Michal Sharon <i>Weizmann Institute</i>
15:50 – 16:06	Oral: #47 Unravelling the mechanism of rotavirus viral factory formation using structural mass spectrometry	Alice Colyer <i>University of Leeds</i>
16:06 – 16:22	Oral: #219 Native top-down electron capture dissociation mass spectrometry with isotope depletion for studying the early stages of oligomer formation in alpha-synuclein proteoforms	Kiani Jeacock <i>University of Edinburgh</i>
16:22 – 16:38	Oral: #241 Hydrogen-deuterium exchange native mass spectrometry of G-quadruplex DNA	Eric Largy <i>Université de Bordeaux</i>
16:38 – 16:54	Oral: #356 Unravelling the structural components behind algae’s highly efficient photosynthetic machines	Aneika Leney <i>University of Birmingham</i>

16:54 – 17:10	Oral: #131 Investigating the binding modes of a conformation-selective ligand to pharmaceutically relevant immunophilins using native IM-MS and CIU experiments	Silvana Smilla Zurmühl <i>Technische Universität Darmstadt</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Separation & Hyphenation; chromatography, electrophoresis – Session B, proteins

Theme: Instrumentation and methods
Chair: Elena Dominguez, *Leiden University Medical Center*

Presentations:

15:30 – 15:46	Oral: #405 High Throughput Venomics	Jeroen Kool <i>VU Amsterdam</i>
15:46 – 16:02	Oral: #266 From Downscaling to Single-Cell Proteomic: Understanding and minimizing the downscaling effect	Christopher Kune <i>Mass Spectrometry Laboratory - ULiège</i>
16:02 – 16:18	Oral: #370 Online native CEX-IM(CIU)-MS approaches to decipher the conformational landscape of therapeutic monoclonal antibodies charge variants	Guusje van Schaick <i>Leiden University Medical Center</i>
16:18 – 16:34	Oral: #258 Investigation of Metal-Protein-Interactions Using a Complementary Analysis Setup Comprising HPLC-ESI-TIMS-MS and HPLC-ICP-MS	Catharina Erbacher <i>University of Münster</i>
16:34 – 16:50	Oral: #365 Multi-nanoparticle Workflow Enables Deep Plasma Proteomics at Scale, with Enhanced Precision, and Depths of Coverage.	Shadi Ferdosi <i>Seer Inc</i>
16:50 – 17:06	Oral: #635 Comparison of hydrophilic interaction chromatography and native size-exclusion chromatography-mass spectrometry for the characterization of heavily glycosylated proteins	Ziran Zhai <i>University of Amsterdam</i>
17:06 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Cellular Signaling Processes and MS in Systems Biology

Theme: Life Sciences & Health
Chair: Chiara Francavilla, *University of Manchester*

Presentations:

15:30 – 15:50	Keynote: #801 Decrypting protein modifications and drug actions by chemical proteomics	Bernhard Kuster <i>TUM Lehrstuhl für Proteomik und Bioanalytik</i>
15:50 – 16:06	Oral: #723 A CDK-mediated phosphorylation switch of disordered protein condensation	Maarten Altelaar <i>Utrecht University</i>
16:06 – 16:22	Oral: #336 The endothelial inflammatory repertoire: a multi-omic delineation of distinct and synergetic endothelial inflammatory states	Stijn Groten <i>Sanquin Research</i>
16:22 – 16:38	Oral: # TO BE ANNOUNCED	
16:38 – 16:54	Oral: #210 Following FGF signaling dynamics in breast cancer using a targeted kinome assay	Tim Veth <i>Utrecht University</i>
16:54 – 17:10	Oral: #70 Spatially Resolved Phosphoproteomics Reveals Fibroblast Growth Factor Receptor Recycling-driven Regulation of Autophagy and Survival	Joanne Watson <i>University of Manchester</i>
17:10 – 17:30	Panel discussion with speakers	



Wednesday 31 August 2022

- 08:30 – 10:00 Curt Brunnée Award ceremony and lectures
Jochen Franzen Award ceremony and lecture
- 10:00 – 11:00 Coffee break
- 11:00 – 13:00 Parallel sessions (morning)
- 13:00 – 14:00 Lunch break & Vendor shows
- 14:00 – 15:30 Poster sessions (B) & coffee break
- 15:30 – 17:30 Parallel sessions (afternoon)
- 17:30 – 18:00 Break
- 18:00 – 20:30 Career workshop



Parallel sessions 11:00 – 13:00

Cultural Heritage and Conservation Science

Theme: Mass spectrometry across disciplines
Chair: Maarten van Bommel, *University of Amsterdam*

Presentations:

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| 11:00 – 11:20 | Keynote: #746 Mass Spectrometry for the Research of Objects of Cultural Heritage | Klaas Jan van den Berg
<i>Rijksdienst Cultureel Erfgoed</i> |
| 11:20 – 11:36 | Oral: #58 Non-proximate sampling of intact native American baskets with in-line dopant permeation atmospheric pressure photoionization | G. Asher Newsome
<i>Smithsonian Museum Conservation Institute</i> |
| 11:36 – 11:52 | Oral: #268 Mapping historical pigments by MALDI-MS imaging | Alba Alvarez-Martin
<i>University of Antwerp</i> |
| 11:52 – 12:08 | Oral: #287 Study of collagen crosslinking and associated modifications in bones using proteomics | Catherine Gilbert
<i>Université de Bordeaux</i> |
| 12:08 – 12:24 | Oral: #612 Understanding the role of pigments in the siccative of oil-based paints by means of soft chemical depolymerization and ultra-high resolution mass spectrometry | Caterina Bordin
<i>CNRS - Université de Lille</i> |
| 12:24 – 12:40 | Oral: #659 Paleoproteomics by ultrahigh resolution MALDI FT-ICR for identification and dating bones from upper pleistocene | Fabrice Bray
<i>MSAP UAR 3290</i> |
| 12:40 – 13:00 | Panel discussion with speakers | |

Parallel sessions 11:00 – 13:00

Ionization technologies

Theme: Instrumentation and methods
Chair: Jens Soltwisch, *Institute of Hygiene, University of Münster*

Presentations:

11:00 – 11:20	Keynote: TITLE TO BE ANNOUNCED	Olga Ovchinnikova
11:20 – 11:36	Oral: #80 Hybrid Ionization Source Combining Nano-electrospray and Dielectric Barrier Discharge Ionization for Simultaneous Detection of Polar and Non-polar Compounds in Single Cells	Qinlei Liu <i>ETH Zürich</i>
11:36 – 11:52	Oral: #102 Increasing Molecular Coverage and Sensitivity for MALDI-MSI via Direct 2-Photon Ionisation of Analytes Enabled by MALDI-2 – Applications to Aromatic Antioxidants in Tissues and Cells	Tassiani Sarretto <i>UOW</i>
11:52 – 12:08	Oral: #316 Effects of biochemical buffers on protein thermal stability measured using submicron emitters and fast heating	Jacob S. Jordan <i>University of California, Berkeley</i>
12:08 – 12:24	Oral: #633 Hyphenation of gas chromatography to a dual ionization source TOFMS for improved compound identification	Steffen Bräkling <i>University Wuppertal</i>
12:24 – 12:40	Oral: #676 Rapid formation of highly oxygenated organic molecules (HOM) revealed with the multi-scheme chemical ionization (MION) inlet	Matti Rissanen <i>Tampere University</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Translational MS – Cancer and Immunology, and MS

Theme: Life Sciences & Health
Chair: Connie Jimenez, *Department of Medical Oncology, OncoProteomics Laboratory & Peter van Veelen, Leiden University Medical Center*

Presentations:

11:00 – 11:20	Keynote: #789 Proteomic analysis of cancer internal heterogeneity	Tamar Geiger <i>Utrecht University</i>
11:20 – 11:36	Oral: #18 Sensitive and Quantitative Detection of MHC-I Displayed Neoepitopes Using a Semiautomated Workflow and TOMAHAQ Mass Spectrometry	Jennie Lill <i>Genentech</i>
11:36 – 11:52	Oral: #223 Personalized responses to viral infections revealed by monitoring serum IgG1 repertoires	Danique van Rijswijk <i>Utrecht University</i>
11:52 – 12:08	Oral: #510 Fibrioblast activation protein triggers selective release of drug payload from small molecule-drug conjugates in solid tumors	Ettore Gilardoni <i>Philochem</i>

12:08 – 12:24	Oral: #669 A new LC-MS/MS based method to quantify urinary thymine dimers after ultraviolet radiation of the skin	Catharina Lerche <i>Copenhagen University Hospital—Bispebjerg and Frederiksberg</i>
12:24 – 12:40	Oral: #712 Ubiquitin ligase STUB1 destabilizes IFNγ-receptor complex to suppress tumor signaling	Onno B. Bleijerveld <i>The Netherlands Cancer Institute</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Proteomics: Top down

Theme: Life Sciences & Health
Chair: Andrea Gargano, *Leiden University Medical Center* & Ljiljana Pasa-Tolic, *Pacific Northwest National Laboratory*

Presentations:

11:00 – 11:20	Keynote: #775 New frontiers in proteomics – proteoforms, proteoform families, and the human proteoform project	Lloyd Smith <i>University of Wisconsin - Madison</i>
11:20 – 11:36	Oral: #341 Characterization of bacterial toxin activity using Proton Transfer Reaction top-down mass spectrometry	Martial Rey <i>Institut Pasteur</i>
11:36 – 11:52	Oral: #272 Top-down identification of protein-protein and protein-ligand complexes using native ambient mass spectrometry directly from tissue	James Hughes <i>University of Birmingham</i>
11:52 – 12:08	Oral: #202 Conformation-specific top-down mass spectrometry	Hannah Britt <i>University College London</i>
12:08 – 12:24	Oral: #92 Benefits of native top-down ECD fragmentation for the sequencing of diverse immunoglobulin formats	Kelly Gallagher <i>Utrecht University</i>
12:24 – 12:40	Oral: #120 Two-dimensional Mass Spectrometry and Top-Down Proteomics: Post-translational Modifications and Protein Conformations	Maria van Agthoven <i>BIOCEV</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Imaging MS - applications in Life Science & Health - Session A

Theme: Life Sciences & Health
Chair: Peggi Angel, *Medical University of South Carolina*

Presentations:

11:00 – 11:20	Keynote: #797 Toward in vivo intraoperative mass spectrometry imaging	Isabelle Fournier <i>University of Lille</i>
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11:20 – 11:36	Oral: #231 N-glycosylation and its role in the malignant transformation of adenoma to early-stage colorectal cancer	Bram Heijs <i>Leiden University Medical Center</i>
11:36 – 11:52	Oral: #371 Unravelling Amyloid Beta Plaque Pathology Associated Lipid Dynamics in Various Alzheimer's Disease Mouse Models	Junyue Ge <i>University of Gothenburg</i>
11:52 – 12:08	Oral: #609 Orbitrap-sims imaging reveals cell-type specific localization of tomato secondary metabolites and allows putative metabolite annotation	Uwe Heinig <i>Weizmann Institute of Science</i>
12:08 – 12:24	Oral: #460 Isomer-resolved lipid imaging of breast cancer using high-pressure ozone-induced dissociation mass spectrometry imaging	Britt Claes <i>Institute University of Maastricht</i>
12:24 – 12:40	Oral: #735 AP-SMALDI Imaging of Compounds and Metabolites in Parasites and Infected Hosts	Bernhard Spengler <i>Justus Liebig University</i>
12:40 – 13:00	Panel discussion with speakers	



Parallel sessions 15:30 – 17:30

MS in the Netherlands (NVMS session)

Chair: Manfred Wuhrer, *Leiden University Medical Center* & Ivana Bobeldijk, *University of Nottingham*

Presentations:

15:30 – 15:55	Keynote: #815 Mass spectrometry in biomarker and biopharmaceutical research	Rainer Bisschof <i>University of Groningen</i>
15:55 – 16:15	Oral: #944 MS: the indispensable driver in industrial food and biotech research	Maurien Olsthoorn <i>DSM</i>
16:15 – 16:25	Student pitch: #173 Multidimensional liquid chromatographic approaches for automated analysis of biopharmaceuticals	Christoph Gstöttner <i>Leiden University Medical Center</i>
16:25 – 16:35	Student pitch: #850 Acrylamide Monoliths for Hydrophilic Interaction Liquid Chromatography-Mass Spectrometry of Intact (Glyco)proteins	Annika van der Zon <i>University of Amsterdam</i>
16:35 – 16:55	Oral: #830 Hyphenating Ion Mobility and Action Spectroscopy in a Synapt G2 to Probe the Structure and Kinetics of Aggregating Peptides.	Steve Daly <i>MS Vision</i>
16:55 – 17:05	Student pitch: #135 High-throughput mass-resolved microscope mode SIMS and MALDI imaging of biological surfaces	Aljoscha Körber <i>M4i/University of Maastricht</i>

17:05 – 17:15	Student pitch: #40 Research Proposal: Immunoprecipitation coupled with μFlow-Top-Down High-Resolution Mass Spectrometry for the Quantification of the Protein Tumor Biomarker Neuron-Specific Enolase	Sebastian van den Wildenberg <i>Eindhoven University of Technology</i>
17:15 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Imaging MS - Instrumentation and Methods

Theme: Instrumentation and methods
Chair: Shane Ellis, *University of Wollongong*

Presentations:

15:30 – 15:50	Keynote: TITLE TO BE ANNOUNCED	Jeff Spraggings <i>Vanderbilt University</i>
15:50 – 16:06	Oral: #176 MALDI MSI and M²AIA enable molecular 3D reconstructions of spheroids	Stefania Alexandra Iakab <i>Hochschule Mannheim</i>
16:06 – 16:22	Oral: #695 Transmission-mode MALDI-2 on a Trapped Ion Mobility Quadrupole Time-of-flight Instrument for Sub-cellular Resolution MS Imaging at High Data Acquisition Speeds	Alexander Potthoff <i>University of Münster</i>
16:22 – 16:38	Oral: #567 Overcoming the Resolution Gap: Incorporating MALDI-IMS Data into Single Cell Phenotyping by Imaging Mass Cytometry	Jake Griner <i>Medical University of South Carolina</i>
16:38 – 16:54	Oral: #406 Kineticmsi, an R-based framework for relative quantification of spatial isotopic incorporation	Berin Boughton <i>Murdoch University</i>
16:54 – 17:10	Oral: #145 Mass spectrometry imaging at 500,000 pixels per second	Ian Anthony <i>Maastricht University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Proteomics: Quantification

Theme: Life Sciences & Health
Chair: Garry Corthals, *Centre for Analytical Sciences Amsterdam* & Kathryn Lilley, *University of Cambridge*

Presentations:

15:30 – 15:50	Keynote: #788 MS redox-proteomics for global analysis of oxidative response	Sara Zanivan <i>CRUK Beatson Institute</i>
15:50 – 16:06	Oral: #141 Detecting and quantifying translational errors by data-independent acquisition	Jonas Pöhls <i>Max-Planck-Institute of Molecular Cell Biology and Genetics</i>
16:06 – 16:22	Oral: #374 Identifying novel transcriptional regulators using affinity purifications coupled to quantitative mass spectrometry	Cathrin Graewe <i>Radboud University</i>
16:22 – 16:38	Oral: #583 Proteome wide, real-time spectral library matching to improve sensitivity and efficiency of quantitative proteomics workflows	Chris McGann <i>University of Washington</i>
16:38 – 16:54	Oral: #643 LC-MS platform for high-throughput quantitative proteomics of wheat grain in large breeding programs	Malte Sielaff <i>University Medical Center of the Johannes Gutenberg-University Mainz</i>
16:54 – 17:10	Oral: #717 Proteomics profiling of saliva for identification of novel biomarker in adenomatous polyp and colorectal cancer patients vs. healthy controls	Sama Rezasoltani <i>University Medical Center Hamburg-Eppendorf</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Polymers and Synthetic Molecules

Theme: Biomaterials
Chair: Harry Philipson, *DSM - ACC*

Presentations:

15:30 – 15:50	Keynote: # 784 Elucidation of Tadpole and Comb Polymer Architectures by Tandem Mass Spectrometry and Ion Mobility Techniques	Chrys Wesdemiotis <i>The University of Akron</i>
15:50 – 16:06	Oral: #802 Water Oxidation on Free Calcium-Manganese-Oxide Clusters: Gas Phase Model Systems for the Catalytically Active Center of Photosystem II	Sandra Lang <i>Ulm University</i>
16:06 – 16:22	Oral: #762 Cell instructive materials for next generation medical devices: what's mass spectrometry got to do with it?	Morgan Alexander <i>University of Nottingham</i>
16:22 – 16:38	Oral: #798 Correlative approaches based on mass spectrometry for semiconductor applications	Jean-Paul Barnes <i>CEA-Leti</i>
16:38 – 16:54	Oral: #782 Biomedical accelerator mass spectrometry	Esther van Duijn <i>TNO</i>
16:54 – 17:10	Oral: #114 Sequence determination of copolymers by mass spectrometry after pyrolysis-gas chromatography	Wouter Knol <i>University of Amsterdam</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Glycomics & Glycoproteomics - Session B

Theme: Life Sciences & Health
Chair: Melissa Bärenfänger, *Division of Bioanalytical Chemistry, VU Amsterdam*

Presentations:

15:30 – 15:46	Oral: #108 Exact structure determination of isomeric glycans by ion mobility-mass spectrometry	Javier Sastre Toraño <i>Utrecht University</i>
15:46 – 16:02	Oral: #591 Structural Studies of SARS-CoV-2 Spike WT and Omicron B.1 Protein Trimers and Their Human Cell Surface Receptors	Catherine Costello <i>Boston University School of Medicine</i>
16:02 – 16:18	Oral: #520 Towards real-time glycopeptide identification on the timstof pro - paser platform: virtual precursor enabled peptide-moiety identification	Gad Armony <i>Radboud University Medical Center</i>
16:18 – 16:34	Oral: #251 Structural characterization of antigen-like oligosaccharide structures by gas phase infrared spectroscopy	Baptiste Moge <i>ilm</i>

16:34 – 16:50	Oral: #417 Development and application of ion mobility tandem mass spectrometry for the investigation of human cerebrospinal fluid gangliosidome	Mirela Sarbu <i>National Institute for Research and Development in Electrochemistry and Condensed Matter</i>
16:50 – 17:06	Oral: #160 The use of mass spectrometry and glycogenomics for the dissection of the human O-glycome	Noortje de Haan <i>University of Copenhagen</i>
17:06 – 17:30	Panel discussion with speakers	



Thursday 1 September 2022

08:30 – 10:00	2022 Thomson Awards ceremony and lectures
10:00 – 11:00	Coffee break
11:00 – 13:00	Parallel sessions (morning)
13:00 – 14:00	Lunch break & Vendor shows
14:00 – 15:30	Poster sessions (B) & coffee break
15:30 – 17:30	Parallel sessions (afternoon)
17:30 – 18:00	Break
18:00 – 21:30	Conference party/dinner



Parallel sessions 11:00 – 13:00

Ion Spectroscopy, Physical and Chemical principles underlying MS - Session A

Theme: Instrumentation and methods
Chair: Anouk Rijs, *VU Amsterdam*

Presentations:

11:00 – 11:20	Keynote: #224 Electronic circular dichroism ion spectroscopy	Valérie Gabelica <i>INSERM, CNRS & Université de Bordeaux</i>
11:20 – 11:36	Oral: #450 Optimization of ionic liquid clusters ionization by experimental design and interaction strength comparison using ESI-MS/MS	Alexis Dubuis <i>L'Oréal Research & Innovation</i>
11:36 – 11:52	Oral: #65 Combining native ion-mobility-mass spectrometry and fluorescence spectroscopy for structural characterization of biomolecules in the gas phase	Ri Wu <i>ETH Zürich</i>
11:52 – 12:08	Oral: #194 Investigation of peptoid ions secondary structures by ion mobility mass spectrometry – mass spectrometry	Perrine Weber <i>UMONS</i>
12:08 – 12:24	Oral: #581 Gas-phase intramolecular proton transfer catalysis of para-aminobenzoic acid	Boris Ucur <i>University of Wollongong,</i>
12:24 – 12:40	Oral: #770 Mass Spectrometry Based Footprinting for Membrane Proteins	Michael Gross <i>Washington University in St Louis</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Separation & Hyphenation; Chromatography, Electrophoresis - Small Molecules

Theme: Instrumentation and methods
Chair: John Langley, *University of Southampton*

Presentations:

11:00 – 11:20	Keynote: #793 Multi-dimensional liquid chromatography techniques for the analysis of organic micropollutants in environmental samples	Deirdre Cabooter <i>KU Leuven</i>
11:20 – 11:36	Oral: #283 Separation of isomer and isobar compounds from complex halogenated pop mixtures by GC-TIMS-MS	Hugo Muller <i>University of Liège</i>
11:36 – 11:52	Oral: #658 Acetylation in combination with gas chromatography coupled to ultrahigh resolution mass spectrometry for the determination of functional groups in complex mixtures	Diana Catalina Palacio Lozano <i>University of Warwick</i>
11:52 – 12:08	Oral: #686 Advances in the ion mobility spectrometry strategies to go beyond separation	Darya Hadavi <i>M4I Institute</i>
12:08 – 12:24	Oral: #618 Characterization of the nanoceasy CE-MS interface: analytical properties and flow rates of the nanoflow sheath liquid coupling	Jasmin Schairer <i>Aalen University</i>
12:24 – 12:40	Oral: #529 3D-printed open port probe-electrospray interface for high-throughput flow injection or liquid chromatography analysis	Xiaobo Tian <i>University of Geneva</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Metabolomics - Session A

Theme: Life Sciences & Health
Chair: Norberto Lopez, *University of California* & Thomas Hankemeier, *Analytical Biosciences and Metabolomics*

Presentations:

11:00 – 11:20	Keynote: #796 High resolution tailored metabolomics in the food-nutrition-health chemical continuum	Philippe Schmitt-Kopplin <i>Helmholtz Munich</i>
11:20 – 11:36	Oral: #362 Infection metallomics – based differentiation of aspergillus fumigatus colonization and invasion	Rutuja H. Patil <i>Institute of Microbiology CAS AV CR</i>
11:36 – 11:52	Oral: #472 The unexplored world of non-canonical fatty acids	Jan Philipp Menzel <i>Queensland University of Technology</i>

11:52 – 12:08	Oral: #575 Method development and troubleshooting of metabolomic MALDI imaging reveals sample preparation dependent tissue specificities	Marlene Leibetseder <i>Technische Universität Wien</i>
12:08 – 12:24	Oral: #410 Building multidimensional in-house metabolomics libraries for untargeted metabolomics with open-source tools	Katyeny Manuela da Silva <i>University of Antwerp</i>
12:24 – 12:40	Oral: #599 Non-invasive monitoring of short-chain fatty acids in exhaled breath using proton transfer reaction – time-of-flight – mass spectrometry	Joris Meurs <i>Radboud University</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Cross-omics, Data Integration and Bioinformatics for MS

Theme: Life Sciences & Health
Chair: Justin van der Hooft, *Wageningen University* & Alain van Gool, *Translational Metabolic Laboratory, Department of Laboratory Medicine*

Presentations:

11:00 – 11:20	Keynote: TITLE TO BE ANNOUNCED	Chanchal Kumar <i>Grünenthal</i>
11:20 – 11:36	Oral: #107 A Cloud-scalable Software Suite for Large-Scale Proteogenomics Data Analysis and Visualization.	Margaret Donovan <i>Seer</i>
11:36 – 11:52	Oral: #369 Experimental reproducibility limits the correlation between mRNA and protein abundances in tumour profiles	Swathi Ramachandra Upadhya <i>University College Dublin</i>
11:52 – 12:08	Oral: #443 Revealing the molecular universe of the human kidney with MALDI-MSI: from spatial metabolomics to spatial glycomics	Christopher Anderton <i>Pacific Northwest National Laboratory</i>
12:08 – 12:24	Oral: #573 Multi-omics investigation of amino acid dynamics in autophagy	Kathrin Thedieck <i>University of Groningen, Carl von Ossietzky University Oldenburg</i>
12:24 – 12:40	Oral: #631 Simultaneous proteo-metabolomics reveals metabolic shifts in an vitro model of tuberous sclerosis complex (TSC)	Alienke van Pijkeren <i>University of Innsbruck</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Biosimilars, Biobetters & Glycoengineering

Theme: Food and (Bio)Pharma
Chair: David Falck, *Center for Proteomics and Metabolomics* & Wendy Sandoval, *Genentech*

Presentations:

11:00 – 11:20	Keynote: #811 Characterization and monitoring of bispecific antibody variants by native mass spectrometry	Markus Habeger <i>Roche Diagnostics GmbH</i>
11:20 – 11:36	Oral: #111 Disclosing the quantitative potential of middle-up HILIC-MS for the N-glycan profiling of therapeutic monoclonal antibodies	Valentina D'Atri <i>Université de Genève</i>
11:36 – 11:52	Oral: #253 Mass Spectrometry-Based De Novo Sequencing of Antibodies Using Multiple Proteases and a Dual Fragmentation Scheme	Joost Snijder <i>Utrecht University</i>
11:52 – 12:08	Oral: #677 At-line monitoring and quantification of monoclonal antibody products during bioprocesses using HPLC-MS	Katharina Böttinger <i>Paris Lodron University of Salzburg</i>
12:08 – 12:24	Oral: #109 Standardized Graphitic Carbon Chromatography Hyphenated to Tandem MS/MS used for Isomer Specific N-Glycomics	Johannes Helm <i>University of Natural Resources and Life Sciences, Vienna</i>
12:24 – 12:40	Oral: #492 Structural characterization of antibody-drug conjugates using hydrogen/deuterium exchange and limited proteolysis-mass spectrometry	Liana Tsiatsiani <i>Byondis B.V.</i>
12:40 – 13:00	Panel discussion with speakers	



Parallel sessions 15:30 – 17:30

Homeland Security, Explosives and Environmental Monitoring

Theme: Mass spectrometry across disciplines
Chair: Jimmie Oxley, *University of Rhode Island*

Presentations:

15:30 – 15:50	Keynote: #701 Determination of per- and polyfluoroalkyl substances (PFAS) and polyfluoroalkyl phosphate esters (PAPs) in food packaging materials by LC-MS	Jacob de Boer <i>VU Amsterdam</i>
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15:50 – 16:06	Oral: #129 Toxicity predictions of unidentified chemicals in water by nontarget LC/HRMS	Pilleriin Peets <i>Stockholm University</i>
16:06 – 16:22	Oral: #604 Two-dimensional ultraviolet photodissociation mass spectrometry for the data-independent analysis of singly-charged agrochemicals and their metabolites in environmentally related matrices	Bryan Marzullo <i>University of Warwick</i>
16:22 – 16:38	Oral: #621 Does sea-dumped chemical weapons pose a risk to Marine ecosystem?	Paula Vanninen <i>VERIFIN, University of Helsinki</i>
16:38 – 16:54	Oral: #390 Ambient Ionization Techniques for the High-Throughput and Low-Cost Screening and Characterization of PFAS.	Patrick Fedick <i>Naval Air Warfare Center Weapons Division</i>
16:54 – 17:10	Oral: #737 Collision Cross Section (CCS) value as an additional identification point for chemical characterization: Development of a LC-ESI-TIMS-QTOFMS database for environmental (bio)monitoring studies	Bob Galvin <i>Bruker Daltonik GmbH & Co.</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Beyond Mass Spectrometry: Making MS obsolete....

Theme: Instrumentation and methods
Chair: Albert Heck, *Utrecht University*

Presentations:

15:30 – 15:50	Keynote: #773 The emerging landscape of single-molecule protein sequencing technologies	Chirlmin Joo <i>Delft University of Technology</i>
15:50 – 16:06	Oral: #354 Novel nano-electro-mechanical resonator MS system design	Christophe Masselon <i>CEA</i>
16:06 – 16:22	Oral: #142 Single Particle Mass Measurements for Weighing Viral Gene Delivery Particles and Monitoring SARS-CoV-2 / Antibody Interactions	Victor Yin <i>Universiteit Utrecht</i>
16:22 – 16:38	Oral: #227 External injection of trapped ions into a hemispherical electrostatic sector analyzer for Charge Detection Mass Spectrometry – a simulation study	John Hoyes <i>TrueMass</i>
16:38 – 16:54	Oral: #230 Direct single molecule imaging on a modified Q Exactive UHMR with electron holography capability	Albert Konijnenberg <i>Thermo Fisher Scientific</i>
16:54 – 17:10	Oral: #271 Nano-electro-mechanical sensor mass spectrometry for viral particles characterization.	Vaitson Çumaku <i>Commissariat à l'Énergie Atomique et aux Énergies Alternatives Grenoble</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Proteomics: Protein-Protein Interaction

Theme: Life Sciences & Health
Chair: Anne-Claude Gingras, *University of Toronto* & Devin Schweppe, *University of Washington*

Presentations:

15:30 – 15:50	Keynote: #783 BioPlex: Current Status and Future Prospects for AP-MS Mapping of the Human Interactome	Edward Huttlin <i>Harvard Medical School</i>
15:50 – 16:06	Oral: #256 High-throughput mass spectrometry methodology to fish peptide toxins from crude venoms by affinity capture on cell membrane receptors	Lou Freuville <i>University of Liège</i>
16:06 – 16:22	Oral: #380 Weighting the sweet glue of antibody-receptor interactions: structural and functional glycoprotein characterization by hyphenated MS techniques	David Falck <i>Leiden University Medical Center</i>
16:22 – 16:38	Oral: #553 Laser-Free Flash Oxidation (Fox) Hydroxyl Radical Protein Footprinting System Accurately Maps the Paratope and Epitope of TNFα Bound to Adalimumab	Emily Chea <i>GenNext Technologies</i>
16:38 – 16:54	Oral: #60 Native Top-Down Mass Spectrometry with Collision- and Electron-Based Dissociation Yields Higher Order Structure Information for Protein Complexes	Joseph Loo <i>University of California Los Angeles</i>
16:54 – 17:10	Oral: #... Characterizing any heterogeneous moiety using native MS and stepped acquisition	Wendy Sandoval <i>Genentech</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

Young MS Scientists - Session B

Theme: Young MS Scientists
Chair: Ian Anthony, *University of Maastricht* & Kelly Stecker, *Utrecht University*

Presentations:

15:30 – 15:50	Keynote: #764 Deciphering O-glycoprotease substrate preferences with O-Pair Search	Nicholas Riley <i>Stanford University</i>
15:50 – 16:06	Oral: #61 In vivo monitoring of flavor release using PTR-MS: Effect of oral processing behavior and food composition	Karina Gonzalez Estanol <i>Fondazione Edmund Mach, Wageningen University</i>
16:06 – 16:22	Oral: #279 High-mass MALDI-MS quantitatively analysis of noncovalent interactions of membrane	Na Wu <i>ETH Zürich</i>
16:22 – 16:38	Oral: #375 Metabolic investigation of inflammation and oxidative stress to facilitate COVID-19 disease prediction	Lieke Lamont <i>Leiden University</i>

16:38 – 16:54	Oral: #499 Towards Single Cell Glycomics	Guinevere Lageveen-Kammeijer <i>Leiden University Medical Center</i>
16:54 – 17:10	Oral: #339 Opening new horizons in lipidomics – ultra high-mass resolution mass spectrometry imaging with an orbitrap coupled to an external data acquisition system	Andrej Grgic <i>Maastricht University</i>
17:10 – 17:30	Panel discussion with speakers	

Parallel sessions 15:30 – 17:30

MS in Structural biology - Native MS, HDX-MS - Session B

Theme: Life Sciences & Health
Chair: Charlotte Uetrecht, *University of Siegen*

Presentations:

15:30 – 15:46	Oral: #186 Cyclic ion mobility – mass spectrometry and electron capture dissociation probe dimerization of aggregation-prone IAPP	Aisha Ben-Younis <i>University College London</i>
15:46 – 16:02	Oral: #346 The dynamics of SARS-CoV-2 nsp7-11 polyprotein processing and complex formation	Kira Schamoni-Kast <i>Leibniz Institute for Experimental Virology</i>
16:02 – 16:18	Oral: #167 Know Your Target: Characterizing Snake Venom Protein Components by Native Mass Spectrometry	Irina Oganessian <i>ETH Zürich</i>
16:18 – 16:34	Oral: #328 Binding of a Potent SARS-CoV-2 Peptide Inhibitor Revealed by Integrated Hydrogen-Deuterium Exchange Mass Spectrometry and Cryo Electron Microscopy	Nadia Mokiem <i>Universiteit Utrecht</i>
16:34 – 16:50	Oral: #582 Structural mass spectrometry reveals insights into DNA triplex assemblies for antigene technologies	Tara Pukala <i>University of Adelaide</i>
16:50 – 17:06	Oral: #484 Cryo-EM samples of gas-phase purified protein assemblies from native electrospray ion-beam deposition	Tim Esser <i>University of Oxford</i>
17:06 – 17:30	Panel discussion with speakers	

Friday 2 September 2022

08:30 – 10:30 Parallel sessions (morning)
 10:30 – 11:00 Coffee break
 11:00 – 13:00 Parallel sessions
 13:00 – 14:00 Lunch break & Vendor shows
 14:00 – 15:00 Plenary session

14:00 – 15:00 **Plenary talk: #847 - Air quality from space: indicator of human activity**

Prof. Pieterneel Levelt
 TU Delft

15:00 – 16:00 Closing ceremony
 16:00 – 18:00 Closing reception



Parallel sessions 08:30 – 10:30

Environmental MS: Earth and Space MS

Theme: Mass spectrometry across disciplines

Chair: Jos Oomens, *Radboud University*

Presentations:

08:30 – 08:50	Keynote: #748 Mass spectrometry and astrophysics	Christine Joblin <i>Université Toulouse</i>
08:50 – 09:06	Oral: #668 The application of MALDI mass spectrometry imaging in the evaluation of pathogenesis of <i>Agrobacterium tumefaciens</i> in cultivated dicotyledons	Katarzyna Suśniak <i>Maria Curie Skłodowska University</i>
09:06 – 09:22	Oral: #637 Structure-aided profiling of natural organic matter by FTICR MS	Alexander Zherebker <i>Skolkovo institute of science and technology</i>
09:22 – 09:38	Oral: #673 Development and validation of a pyrolysis - gas chromatography – high resolution mass spectrometry method for the determination of nano- and microplastics in river water and sediment samples	Eva de Rijke <i>University of Amsterdam</i>
09:38 – 09:54	Oral: #220 Double throw, qualitative and semi-quantitative PFAS detection using DART-MS	Jan Jordens <i>VITO</i>
09:54 – 10:10	Oral: #257 Rapid cyanobacteria species identification with high sensitivity using native mass spectrometry	Jaspreet Sound <i>University of Birmingham</i>
10:10 – 10:30	Panel discussion with speakers	

Parallel sessions 08:30 – 10:30

Miniaturization, Lab-on-a-chip, In Situ Applications

Theme: Instrumentation and methods
Chair: Sarfaraz Syed, *Next Generation Sensors BV*

Presentations:

08:30 – 08:50	Keynote: #808 Reactions of nanoparticles	Thalappil Pradeep <i>Indian Institute of Technology Madras</i>
08:50 – 09:06	Oral: #82 Food impact assessment of exhaled breath volatile organic compounds using a portable membrane inlet mass spectrometer	Milena Jakšić <i>BioSense Institute, University of Novi Sad</i>
09:06 – 09:22	Oral: #189 Aptapaper – an Aptamer-Functionalized Glass Fiber Paper Platform for Rapid Upconcentration and Detection of Small Molecules	Sandra Martínez-Jarquín <i>ETH Zürich</i>
09:22 – 09:38	Oral: #675 3-dimensional tissue sampling in the nanoliter-voxel scale by nanosecond-IR-laser ablation for analysis of proteoforms with top-down mass spectrometry	Hartmut Schlüter <i>University of Hamburg</i>
09:38 – 09:54	Oral: #24 Detection of metabolic changes in HFD-ApoE^{-/-} model by SP6 peptide using MRMS	Matthias Witt <i>Bruker Daltonics GmbH & Co.</i>
09:54 – 10:10	Oral: #59 DEVELOPMENT AND APPLICATION OF A ROBUST, AUTOMATED HDX-MS SYSTEM THAT CAN CONTINUOUSLY MEASURE EXCHANGE TIMES FROM MILLISECONDS TO HOURS	Cristina Lento <i>York University</i>
10:10 – 10:30	Panel discussion with speakers	

Parallel sessions 08:30 – 10:30

Proteomics: Post-Translational Modifications and their Cross-talk

Theme: Life Sciences & Health
Chair: Michiel Vermeulen, *Radboud University Nijmegen* & Jesper Olsen, *University of Copenhagen*

Presentations:

08:30 – 08:50	Keynote: #799 Kinase signalling circuits in health and disease	Pedro Beltrao <i>ETH Zürich</i>
08:50 – 09:06	Oral: #457 Unraveling T cell - tumor cell communication using hybrid quantitative MS	Kelly Stecker <i>Utrecht University</i>
09:06 – 09:22	Oral: #554 Combined metabolic and chemical (cometchem) labelling using stable isotopes to reveal site-specific histone acetylation/deacetylation rates by LC-MS/MS	Marcel Kwiatkowski <i>University of Innsbruck</i>
09:22 – 09:38	Oral: #386 Optimization of Suspension Trapping (S-Trap) Methods for Phosphoproteomics	Fujia Wang <i>Utrecht University</i>

09:38 – 09:54	Oral: #476 Isobaric labeling mass spectrometry to monitor ubiquitination dynamics upon proteasome modulation by small molecule inhibitors	Jeroen Demmers <i>Erasmus MC</i>
09:54 – 10:10	Oral: #267 Unlocking the role of tubulin polyglutamylation enzymes involved in neurodegeneration with top-down proteomics	Megan Gant <i>Institut Pasteur</i>
10:10 – 10:30	Panel discussion with speakers	

Parallel sessions 08:30 – 10:30

High Resolution Mass Spectrometry - Session B

Theme: Instrumentation and methods
Chair: Julia Chamot-Rooke, *Mass Spectrometry for Biology Unit, Université de Paris*

Presentations:

08:30 – 08:46	Oral: #566 Characterization and quantification of lipid nanoparticle components and their degradants in vivo using an LC-HRAM MS platform	Siegrun Mohring <i>Thermo Fisher Scientific GmbH</i>
08:46 – 09:02	Oral: #718 Fine Structural Elucidation of Phospholipids with Practical Electron-Based Fragmentation on Q-TOF Instruments	Hania Khouri <i>Agilent Technologies</i>
09:02 – 09:18	Oral: #640 ESI and MALDI FTICR MS analysis of skin-relevant lipids after exposure to long wavelength UV radiation	Samuele Zoratto <i>TU Wien</i>
09:18 – 09:34	Oral: #579 High-Depth Multiplexed Drug Profiling with a Modified Tribrid Mass Spectrometer	Steven Shuken <i>Harvard Medical School</i>
09:34 – 09:50	Oral: #561 Charge state separation mass spectrometry on TOF platform for top-down analysis	Pavel Ryumin <i>SCIEX</i>
09:50 – 10:06	Oral: #569 Assessing key attributes of adeno-associated viral proteins using HPLC-FLD-intact accurate mass analysis	Julia Kraegenbring <i>Thermo Fisher Scientific</i>
10:06 – 10:30	Panel discussion with speakers	

Parallel sessions 08:30 – 10:30

Metabolomics - Session B

Theme: Life Sciences & Health
Chair: Esther Zaal

Presentations:

08:30 – 08:46	Oral: #128 Monitoring gut microbiota activity by secondary electrospray ionization-high resolution mass spectrometry	Jiayi Lan <i>ETH Zürich</i>
08:46 – 09:02	Oral: #270 Developing and Applying a Separated Pooled Quality Control Strategy to Untargeted LC-MS/MS Exposomics	Gianfranco Frigerio <i>University of Luxembourg</i>

09:02 – 09:18	Oral: #433 Chemical profiling of the human skin surface for malaria vector control using a non-invasive sorptive sampler with GCxGC-TOFMS and UPLC-IMS-HRMS	Madelen Wooding <i>University of Pretoria</i>
09:18 – 09:34	Oral: #647 Structural annotation of novel biomarkers for inborn errors of metabolism with infrared ion spectroscopy	Pieter Kooijman <i>Radboud University</i>
09:34 – 09:50	Oral: #558 Collision Induced Dissociation and Ultraviolet Photodissociation for Qualitative and Quantitative LC-MS/MS analysis of Low Molecular Weight Compounds	Romain Giraud <i>University of Geneva</i>
09:50 – 10:06	Oral: #636 Systematic comparison of different derivatisation reagents for determination of multiple vitamin D3 metabolites using LC-MS/MS	Anastasia Alexandridou <i>Humboldt-Universität zu Berlin</i>
10:06 – 10:30	Panel discussion with speakers	



Parallel sessions 11:00 – 13:00

Ambient Technologies (and their applications)

Theme: Instrumentation and methods
Chair: Helen Cooper, *University of Birmingham*

Presentations:

11:00 – 11:20	Keynote: # TO BE ANNOUNCED	
11:20 – 11:36	Oral: #36 Immuno-enriched microsphere – magnetic blade spray tandem mass spectrometry for domoic acid in mussels	Ariadni Geballa-Koukoulou <i>Wageningen Food Safety Research (WFSR)</i>
11:36 – 11:52	Oral: #570 Inline cartridge extraction mass spectrometry: a simple and reliable tool for molecular profiling	Denis Bormotov <i>Vanderbilt University</i>
11:52 – 12:08	Oral: #143 Native in situ top-down identification and native ambient mass spectrometry imaging of proteins and protein complexes from rat brain	Emma Sisley <i>University of Birmingham</i>
12:08 – 12:24	Oral: #511 Advances in sample analysis speed and clinical diagnostics using liquid AP-MALDI MS	Rainer Cramer <i>University of Reading</i>
12:24 – 12:40	Oral: #560 Direct real-time analysis of living cells using laser desorption-rapid evaporative ionization mass spectrometry (LD-REIMS)	Stefania Maneta-Stavrakaki <i>Imperial College London</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Imaging MS - applications in Life Science & Health - Session B

Theme: Life Sciences & Health
Chair: Lieke Lamont, *Leiden University* & **to be advised**

Presentations:

11:00 – 11:20	Keynote: #800 Applications of high resolution mass spectrometry imaging in pharmaceutical research and food sciences	Andreas Römpp <i>University of Bayreuth</i>
11:20 – 11:36	Oral: #313 Towards a new era in spatialomics: M3-imaging of intact proteins and other biomolecules in tissues using mass spectrometry	Mark Lim <i>AmberGen Incorporated</i>
11:36 – 11:52	Oral: #393 Desi mass spectrometry imaging of lipids in advanced human atherosclerotic plaque	Nuria Slijkhuis <i>Erasmus Medical Center</i>
11:52 – 12:08	Oral: #290 Quantitative Mass Spectrometry Imaging to Study Lipid Metabolism in Parkinson's Disease Model	Michiel Vandenbosch <i>Maastricht University</i>
12:08 – 12:24	Oral: #576 Combined O-glycanase and O-glycoprotease approach for analysis of O-glycosylation in mucinous tumor tissues by MALDI imaging mass spectrometry	Richard Drake <i>Medical University of South Carolina</i>
12:24 – 12:40	Oral: #697 Visualizing the interaction of the two fungi <i>Trichoderma atroviride</i> and <i>Botrytis cinerea</i> with MALDI Imaging	Stefan Kirnbauer <i>Technische Universität Wien</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

Food, Nutrition & Agriculture

Theme: Food and (Bio)Pharma
Chair: Maurien Olsthoorn, *DSM Science & Innovation* & Arjen Gerssen, *Wageningen University and Research*

Presentations:

11:00 – 11:20	Keynote: #755 Using mass spectrometry based techniques to discover molecular target for flavor innovations in food	Corinna Dawid <i>Technical University of Munich</i>
11:20 – 11:36	Oral: #549 Structural elucidation of photo-molecular heater byproducts using infrared ion spectroscopy	Matthias Vink <i>FELIX (Radboud University)</i>
11:36 – 11:52	Oral: #494 FOOD AUTHENTICATION: Mass Spectrometric Strategies for Detecting Food Fraud in Routine Laboratories	Marina Creydt <i>University of Hamburg</i>
11:52 – 12:08	Oral: #432 Human exposure to extractables and leachables from single-use plastic food contact materials: a disposable sorptive sampler, UHPLC-IMS-HRMS and GC×GC-TOFMS	Madelien Wooding <i>University of Pretoria</i>

12:08 – 12:24	Oral: #381 Validation of immunoaffinity-based mass spectrometry approaches for the detection of ruminant-specific peptides in animal feed	Tessa Höper <i>German Federal Institute for Risk Assessment</i>
12:24 – 12:40	Oral: #436 Considerations for developing an analytical strategy for small molecule MS-based screening in industrial biotechnology	Leon Coulier <i>DSM</i>
12:40 – 13:00	Panel discussion with speakers	

Parallel sessions 11:00 – 13:00

JMS Awardees session

Chairs: Michal Sharon, *Weizmann Institute* & Calum Novak-Mitchell, *Wiley*

Presentations:

11:00 – 11:04	Opening of the session	
11:04 – 11:20	Abstract ID: #... Harnessing low-temperature plasma chemistry to distinguish alkylated aromatic isomers with mass spectrometry	Alina Begley <i>Department Chemistry and Applied Biosciences ETH Zürich</i>
11:20 – 11:36	Abstract ID: #... Determining Structural Motifs and Conformations of Glycosyl Cations by Cryogenic Gas-Phase Ion Infrared Spectroscopy	Kim Greis <i>Freie Universität Berlin, Institut für Chemie und Biochemie</i>
11:36 – 11:52	Abstract ID: #101 High-Throughput Bioanalysis using Desorption Electrospray Ionization Mass Spectrometry (DESI-MS)	Nicolás M. Morato, <i>Purdue University, West Lafayette</i>
11:52 – 12:08	Abstract ID: #828 Cloud Electrification or Spontaneous Water Ionization	Luan Felipe Campos Oliveira <i>University of Campinas (UNICAMP), Brazil</i>
12:08 – 12:24	Abstract ID: #471 Intermittent fasting triggers sexually dimorphic hepatic interferon alpha signalling	Dylan. J. Harney <i>Charles Perkins Centre, University of Sydney</i>
12:24 – 12:30	Award ceremony	

