



**29TH AUSTRALIAN AND NEW
ZEALAND SOCIETY FOR MASS
SPECTROMETRY CONFERENCE**

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**CONFERENCE
PROGRAM**



anzsms²⁹
Australian and New Zealand Society
for Mass Spectrometry Conference
University of Wollongong NSW
9-13 July, 2023

Mass spectrometry

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SUNDAY 9 JULY 2023

1300	Registration Opens		
1350	Conference Opening - Welcome address and other announcements		
1410	SESSION SUN-01 (UNI HALL)	ADVANCES IN INSTRUMENTATION & METHODS	SESSION CHAIR: DR NICOLE RIJS
1410	Plenary lecture 1 (40 + 5 min)	Dr Marianne Engeser University of Bonn (Germany)	<i>Metallo-supramolecular aggregates in the gas phase: avoid and provoke fragmentation</i>
1455	Speaker 1 (17 + 3 min)	Dr Michael Pfrunder Queensland University Of Technology	<i>Diastereomer Resolution of M₄L₆ Coordination Cages by Ultra-High-Resolution Ion Mobility Mass Spectrometry</i>
1515	Speaker 2 (17 + 3 min)	Oscar Lloyd Williams * University Of New South Wales	<i>Investigating Small Molecules as Templating Agents for Coordination Driven Self-Assembly with Ion Mobility Mass Spectrometry</i>
1535	Close of session SUN-01		
1535	Afternoon tea break and networking in the exhibition foyer (25 min)		
1535	All Poster sessions - POSTERS UP		
1600	SESSION SUN-02 (UNI HALL)	ADVANCES IN INSTRUMENTATION & METHODS (CONTINUE)	SESSION CHAIR: DR ALAN MACCARONE
1600	Keynote Lecture 1 (25 + 5 min)	Dr Berwyck Poad Queensland University Of Technology	<i>Resolving Macromolecular Complexity Using Ion Mobility and Mass Spectrometry</i>
1630	Speaker 3 (17 + 3 min)	Jayden Mckinnon * University of Wollongong	<i>Enhancing Metabolite Coverage in MALDI-MSI using Laser Post-Ionisation (MALDI-2)</i>
1650	Speaker 4 (17 + 3 min)	Merryn Baker * University Of New South Wales	<i>Metal organic frameworks for enhancing the analysis of volatile organic compounds in breath by high resolution mass spectrometry</i>
1710	Close of session SUN-02		
1800	Welcome Reception Science Space (UOW Innovation Campus)		
2000	Close of Welcome reception and Sunday program		

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Monday 10 JULY 2023

800	Registration Opens		
820	Welcome and announcements		
825	SESSION MON-01 (UNI HALL)	ION CHEMISTRY, ACTIVATION AND SPECTROSCOPY	SESSION CHAIR: PROF STEVE BLANKSBY
825	Plenary lecture 2 (40 + 5 min)	Prof Anouk Rijs Vrije Universiteit Amsterdam (Netherlands)	<i>Advancing Structural Characterization Methods in Mass Spectrometry for Protein Aggregation Analysis</i>
910	Keynote Lecture 2 (25 + 5 min)	Dr Chris Hansen University Of New South Wales	<i>Zero-pressure photolysis quantum yields determined by photoionisation mass spectrometry</i>
940	Speaker 5 (17 + 3 min)	Patricia Kelly * University Of Wollongong	<i>Space for (Molecular Weight) Growth: A tricyclic product in the reaction of distonic benzonitrylium-2-yl radical cations with acetylene</i>
1000	POSTER Lightning talks	Poster lightning talks 2 min each	<i>Posters P-01, P-03, P-05, P-07, P-09, P-11, P-13, P-15</i>
1020	Close of session MON-01		
1020	Morning tea break and Poster session		
1020	Poster session - ODD NUMBER POSTERS (40 min)		
1100	SESSION MON-02 (UNI HALL)	NEW ADVANCES IN LIPIDOMICS	SESSION CHAIR: DR RUSSEL PICKFORD
1100	Speaker 6 (17 + 3 min)	Jayden Lee Roberts * Murdoch University / Australian National Phenome Centre	<i>High-Resolution DBS-Based Lipidomics Platform</i>
1120	Speaker 7 (17 + 3 min)	Rangika Maggona Gurunnanselage * Queensland University Of Technology	<i>Isomer resolution of lipid biomarkers in human plasma</i>
1140	Speaker 8 (17 + 3 min)	Dr Samuel Brydon Queensland University Of Technology	<i>Synergistic Approach to Lipid Structure Elucidation Using Selective Fragmentation Methods</i>
1200	Close of session MON-02		
1200	Lunch Break and vendor workshop		
1215	Vendor workshop (Uni Hall, 30 min) Workshop hosted by Thermo Fisher (Platinum Sponsor)		ThermoFisher SCIENTIFIC The world leader in serving science

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Monday 10 JULY 2023

1330	SESSION MON-03 (UNI HALL)	CLINICAL AND DIAGNOSTIC	SESSION CHAIR: DR SARAH HANCOCK
1330	Keynote Lecture 3 (25 + 5 min)	Prof Sally Ann Poulsen Griffith University	<i>Characterising the interactions of biomolecules associated with health and disease using native mass spectrometry</i>
1400	Speaker 9 (17 + 3 min)	Melissa Sam * University Of New South Wales / NSW Health Pathology	<i>Mass spectrometry-based assays for measuring bound Infiximab in patient sera. Can we improve patient outcomes?</i>
1420	Speaker 10 (17 + 3 min)	Dr David Harman Western Sydney University	<i>The first accurate measurement of somatostatin concentration in human blood</i>
1440	Speaker 11 (17 + 3 min)	Monique Ryan * Murdoch University / Australian National	<i>Comprehensive Lipidomics Workflow for Population Phenotyping and Application to Non-Severe Burns</i>
1500	Close of session MON-03		
1500	Afternoon tea break and networking in the exhibition foyer (30 min)		
1530	SESSION MON-04 (UNI HALL)	COMPUTATIONAL/BIOINFORMATICS	SESSION CHAIR: DR LUKE CARROLL
1530	Keynote Lecture 4 (25 + 5 min)	A/Prof Ben Parker University Of Melbourne	<i>Proteome-wide systems genetics in mouse populations</i>
1600	Speaker 12 (17 + 3 min)	A/Prof William Donald University Of New South Wales	<i>Interpretable machine learning on metabolomics data reveals biomarkers for Parkinson's disease</i>
1620	Speaker 13 (17 + 3 min)	Dr Chris Pook The University of Auckland / Liggins Institute	<i>Spectral deconvolution of All Ions Fragmentation data for improved structural elucidation of low-abundance compounds in the plasma metabolome</i>
1640	Close of session MON-04		
1640	Close of Monday program		

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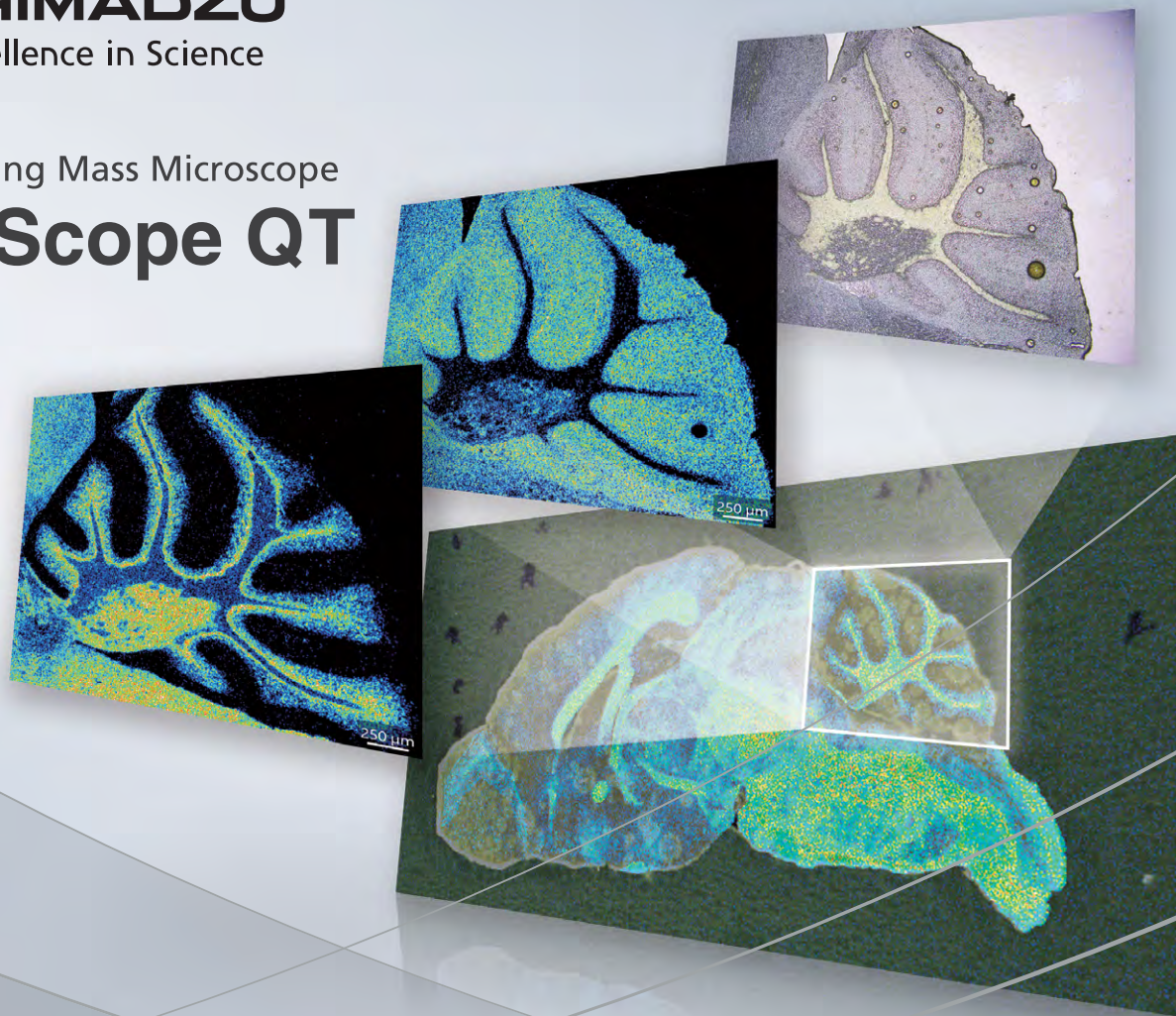


Agilent 6495 LC/TQ

Tuesday 11 JULY 2023

800	Registration Opens		
820	Welcome and announcements		
825	SESSION TUE-01 (UNI HALL)	MASS SPECTROMETRY IMAGING	SESSION CHAIR: A/PROF SHANE ELLIS
825	Plenary lecture 3 (40 + 5 min)	Dr Jens Soltwisch University of Munster (Germany)	<i>MALDI-MS imaging at high spatial resolution – challenges and recent developments</i>
910	Keynote Lecture 5 (25 + 5 min)	Dr David Bishop University of Technology Sydney	<i>Immuno-mass spectrometry imaging – potential and pitfalls</i>
940	Speaker 14 (17 + 3 min)	Ashna Kumar * University Of Wollongong	<i>Investigation of small-molecule drug uptake in pancreatic ductal adenocarcinoma tumours via MALDI-MSI</i>
1000	Speaker 15 (17 + 3 min)	Jesse Michael * University Of Wollongong	<i>Plasma Post-Ionisation combined with Atmospheric Pressure MALDI on a timsTOF Pro for the analysis of Lipid Spatial Distributions and Turnover in APOE-knockout Mouse Brains</i>
1020	Close of session TUE-01		
1020	Morning tea Break and Vendor Workshop		
1025	Vendor workshop (Uni Hall, 30 min) Workshop hosted by Shimadzu (Gold Sponsor)		 Excellence in Science
1110	SESSION TUE-02 (UNI HALL)	NEW ADVANCES IN LIPIDOMICS (2ND SESSION)	SESSION CHAIR: A/PROF TODD MITCHELL
1110	Speaker 16 (17 + 3 min)	Dr Sarah Hancock Victor Chang Cardiac Research Institute	<i>Discovery of n-10 monounsaturated fatty acids in pancreatic ductal adenocarcinoma by ozone-induced dissociation: a new target for improving chemotherapy efficacy?</i>
1130	Speaker 17 (17 + 3 min)	Lachlan Jekimovs * Queensland University Of Technology	<i>Uncovering non-canonical unsaturated fatty acids in the brain</i>
1150	Speaker 18 (17 + 3 min)	Dr Andrew Jenner University Of New South Wales, BMSF	<i>Establishment of Reliable and Convenient GC-MS Analysis of Human Faecal Short Chain Fatty Acid (SCFA)</i>
1210	Speaker 19 (17 + 3 min)	Puttandon Wongsomboon * Queensland University of Techonology	<i>Lipid mass spectrometry in a nutshell: deep profiling of fatty acids in edible nuts</i>
1230	Close of session TUE-02		
1230	Close of Tuesday program		
1230	Lunch Break (take away lunch provided)		
OPTIONAL EVENTS			
1315	ANZSMS business meeting (Molecular Horizon Institute, Building 42, Room 42.101)		Event for ANZSMS Members
1445	ANZSMS business meeting closes		
1500	ANZSMS FeMS Networking event (Uni Hall) Afternoon tea and light refreshment provided during the event		Event open to all Sponsored by SCIEX
	 The Power of Precision		
1700	ANZSMS FeMS Networking event closes		

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WEDNESDAY 12 JULY 2023

800	Registration Opens		
820	Welcome and announcements		
825	SESSION WED-01 (UNI HALL)	ENVIRONMENTAL AND FORENSIC	SESSION CHAIR: DR CELINE KELSO
825	Plenary lecture 4 (40 + 5 min)	Prof Malcolm McLeod Australian National University (Australia)	<i>Delivering the CanTEST Health and Drug Checking Service</i>
910	Speaker 20 (17 + 3 min)	Prof Gavin Reid University Of Melbourne	<i>Large Scale Monitoring of Illicit Drug Use via Mass Spectrometry Based Trace Residue Analysis of Discarded Drug Packaging and Paraphernalia</i>
930	Speaker 21 (17 + 3 min)	Dr Maiken Ueland University Of Technology Sydney	<i>Search and recovery of human remains in mass disasters</i>
950	POSTER Lightning talks	Poster lightning talks 2 min each	<i>Posters P-02, P-04, P-06, P-08, P-10, P-12, P-14, P-16</i>
1010	Close of session WED-01		
1010	Morning tea break and Poster session		
1010	Poster session - EVEN NUMBER POSTERS (40 min)		
1100	SESSION WED-02 (UNI HALL)	ENVIRONMENTAL AND FORENSIC (2ND SESSION)	SESSION CHAIR: PROF MALCOLM MCLEOD
1100	Speaker 22 (17 + 3 min)	Brandon Bills Thermo (Platinum Sponsor)	<i>Data-Dependent Analysis of PFAS using Mass Defect and Real-Time Library Searching</i>
1120	Speaker 23 (17 + 3 min)	Lisa Hua * University Of New South Wales	<i>Metal organic frameworks for improving the analysis of perfluoroalkyl substances by mass spectrometry</i>
1140	Speaker 24 (17 + 3 min)	A/Prof David Beale RMIT University Agilent (Gold sponsor presenation)	<i>Wild-Caught Freshwater Turtles Exposed to Elevated PFAS: Omics-Based Ecosurveillance Reveals Atypical Scute Formation and Biological Impact</i>
1200	Speaker 25 (17 + 3 min)	Caitlin Jenkins * University Of Wollongong	<i>What's in a Vape? Chemical Analysis of Electronic Cigarettes by GC-MS</i>
1220	Close of session WED-02		
1220	Lunch Break		
1230	Vendor workshop (Uni Hall, 30 min) Workshop hosted by Agilent (Gold Sponsor)		

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WEDNESDAY 12 JULY 2023

1320	SESSION WED-03 (UNI HALL)	METABOLOMICS	SESSION CHAIR: PROF GAVIN REID
1320	Speaker 26 (17 + 3 min)	Liang Jiang * Charles Sturt University	<i>Untargeted metabolomic analysis with direct electrospray ionisation mass spectrometry for discrimination of Botrytis cinerea infection in grapes</i>
1340	Speaker 27 (17 + 3 min)	Connor Phillips * University Of Technology Sydney	<i>Investigation into the metabolomic effects of the non-protein amino acid azetidine-2-carboxylic acid (AZE)</i>
1400	Speaker 28 (17 + 3 min)	Dr Jake Violi University of New South Wales	<i>Optimisation and investigation of different options for HILIC-MS/MS based metabolomics</i>
1420	Speaker 29 (17 + 3 min)	River Pachulicz * University Of Adelaide	<i>Direct injection ion mobility-mass spectrometry for structural analysis and identity confirmation of anthocyanins in Brassica oleracea extracts</i>
1440	Close of session WED-03		
1440	Afternoon tea break and networking in the exhibition foyer (30 min)		
1440	All Posters Sessions - Posters DOWN		
1510	SESSION WED-04 (UNI HALL)	NATIVE MS/STRUCTURAL BIOLOGY	SESSION CHAIR: A/PROF ALEX DONALD
1510	Keynote Lecture 6 (25 + 5 min)	Prof Tara Pukala The University of Adelaide	<i>Exploring DNA triplex assemblies for antigene technologies using structural mass spectrometry</i>
1540	Speaker 30 (17 + 3 min)	Lewis McFarlane * The University of Adelaide	<i>In-depth characterisation of Naja nivea venom using a multifaceted mass spectrometry approach</i>
1600	Speaker 31 (17 + 3 min)	Manatsu Nose * University Of New South Wales	<i>Identification of bioactive natural products using multiplexed, multistage native mass spectrometry</i>
1620	Speaker 32 (17 + 3 min)	Dr Louise Sternicki Griffith University	<i>Characterising virus-like particles with native charge detection mass spectrometry</i>
1640	Close of session WED-04		
1900	Conference Dinner to be held at the Aspire Event Centre, Innovation Campus (Building 230, Level 2 Function Room) Speeches and Awards Presentations Conference Dinner Sponsored by Thermo Fisher Scientific		 The world leader in serving science
2300	End of Conference Dinner and close of Wednesday program		

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Thursday 13 JULY 2023			
800	Registration		
825	Welcome and announcements		
830	SESSION THU-01 (UNI HALL)	GLYCOMICS / PROTEOMICS	SESSION CHAIR: A/PROF MORTEN THAYSEN-ANDERSEN
830	Plenary lecture 5 (40 + 5 min)	Dr Weston Struwe Oxford University (UK)	<i>Unravelling Virus Glycoprotein Structure and Function across Molecular Scales</i>
915	Keynote Lecture 7 (25 + 5 min)	Dr Manuela Klingler-Hoffmann University of South Australia	<i>Towards clinical applications: proteomics of patient derived cells and tissues</i>
945	Speaker 33 (17 + 3 min)	Dr Dylan Harney University Of Sydney	<i>Dietary Restriction Induces a Sexually Dimorphic Type I Interferon Response in Mice with Gene-Environment Interactions</i>
1005	Close of session THU-01		
1005	Morning tea (25 min)		
1030	SESSION THU-02 (UNI HALL)	AWARDS SESSION	SESSION CHAIR: PROF TARA PUKALA (ANZSMS PRESIDENT)
1030	Morrison Medal Award Presentation (25 + 5 min)	Prof Ute Roessner Morrison Medal 2023	<i>The role of mass spectrometry in understanding beneficial plant root microbe interactions</i>
1100	Guilhaus Award 2023 Presentation (17 + 3 min)	Dr David Marshall Guilhaus Research Award - winner 2023	<i>Investigating Photochemical Reactions with Photodissociation Action Spectroscopy</i>
1120	Guilhaus Award 2021 Presentation (17 + 3 min)	Dr Berin Boughton Guilhaus Research Award - winner 2021	<i>Imaging metabolic flux using mass spectrometry imaging</i>
1140	Prize announcements and Conference Closure	Awards for Best Student Presentation, Best Student Poster. Passport Competition Draw Prize Travel Awards	
1210	Close of session THU-02		
1210	End of Thursday program		
1210	Conference closes		

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