

QUEENSLAND  
MASS SPECTROMETRY  
SYMPOSIUM 2021  
GOLD COAST, AUSTRALIA

4-5 NOVEMBER 2021

Griffith UNIVERSITY  
Institute for Glycomics  
Queensland, Australia

Presented by Life Sciences Queensland

# Queensland Mass Spectrometry Symposium 2021

November 4, 2021 9:30 am - November 5, 2021 5:00 pm

Institute for Glycomics (G26), 1 Parklands Drive, Southport QLD, Australia

## Thursday 4th Nov 2021

Time	Session Chair	Activity	Presenter/s	Title
9:00:00 AM		Registration		
9:30:00 AM		Welcome & Opening remarks	Prof Daniel Kolarich	Welcome, housekeeping
9:35:00 AM	Daniel Kolarich	Silver Sponsor Technology Highlight	Dr Jeremy Potriquet	Be extraordinary with the ZenoTOF 7600 system and EAD
9:45:00 AM		Opening plenary day-1	<b>Prof. Jochen Mueller and Prof. Kevin Thomas</b>	The use of mass spectrometry in exposure science
10:30:00 AM		Morning tea		
11:00:00 AM	Stephen Blanksby	Symposium session 1	<b>Prof Michelle L Colgrave</b>	In the lupin: proteomics studies of an emerging superfood
11:20:00 AM		Symposium session 1	<b>Dr Charles Appleton</b>	Clinical LC-MS: What's Happening at the Medical Coal Face
11:40:00 AM		Symposium session 1	Ms Abarna Murugan	A Mass Spectrometry Based Analytical Arsenal for Comprehensive, Species-specific Structural Annotation of the Vertebrate Serum/Plasma Glycome
12:00:00 PM		Symposium session 1	Dr Carney Matheson	Multiomic applications to archaeology and forensic science
12:15:00 PM		Symposium session 1	Dr Pawel Sadowski	VPBrowse: Online Repository for Genome-Based Representation and Quantitation of 10,000 Bovine Proteins
12:30:00 PM			Lunch	
1:30:00 PM	Thomas Hennessy	Gold Sponsor Workshop	Dr Michelle Hill	Sorting out sweet fats (aka glycosphingolipids) by mass spectrometry
			Dr David J Beale	Sample preparation strategies for single-pot environmental panomics-based research
2:30:00 PM		Afternoon tea and Facility Showcase	Prof Stephen Blanksby	
3:00:00 PM	Benjamin Schulz	Symposium Session 2   <i>Lightning Talks</i>  8 min each	Kevin Dudley	Developing a pipeline for isoform-level multi-omics data analysis
			Sophia Escobar Correas	Perennial Ryegrass Contains Gluten-Like Proteins That Could Contaminate Cereal Crops
			Jordi Nelis	Targeted proteomics for rapid and robust peanut allergen quantification
			Seth Kazmer	Rapid detection of chemical contaminants in LC-MS solvents and samples using infrared spectroscopy
			Lucia Zacchi	Coagulation factor IX analysis in bioreactor cell culture supernatant predicts quality of the purified product
			Aiden Beaglehole	Revealing alternate forms of cell death in biopharmaceutical production
			Qiuda Zheng	Direct injection analysis of oxypurinol and metformin in wastewater using hydrophilic interaction liquid chromatography coupled to tandem mass spectrometry
			Md Nazrul Islam	Validation of an ICP-MS method and its application to assess human exposure of metal/loids at and near mega-scale shipwrecking activities
			Hanna Sidjabat	Using SWATH mass spectrometry and principal component analysis to understand bacterial proteome changes of potential probiotics in the presence of pathogens
		Cathryn Kolka	Tissue multiomics identify lipid pathways in the progression of esophageal adenocarcinoma	
4:30:00 PM		Posters and Mixer		

## Friday 5th Nov 2021

Time		Activity	Presenter/s	Title
9:00:00 AM	Arun Everest-Das	Welcome & Opening remarks	Prof Daniel Kolarich	Welcome, housekeeping
9:05:00 AM		Silver Sponsor Technology Highlight	Dr Yan Li	Introducing DESI XS and SELECT SERIES MRT - What can ultra-high resolution bring to MS imaging
9:10:00 AM		Opening plenary day-2	<b>Prof. Michele Burford</b>	Advances in the use of stable isotopes to explore the complexities of aquatic systems
10:00:00 AM		Symposium Session 3	Mr Edward Kerr	Capturing and Characterising Wild Yeast for Beer Brewing
10:15:00 AM		Symposium Session 3	Dr Zang Tuo	SWATH Quantification of blister fluid proteome from paediatric burn injuries using an integrated ion library
10:30:00 AM	Morning tea			
11:00:00 AM	Harley Robinson	Symposium Session 4	<b>Dr Clare L Flakelar</b>	Separation and identification of FA18:1 cis/trans isomers
11:20:00 AM		Symposium Session 4	Dr Cassandra Pegg	Glycosylation of the spike protein in a variant of SARS-CoV-2
11:35:00 AM		Symposium Session 4	Mr Justin Cormick	Stable isotope profiling of the illicit drugs 3,4-methylenedioxyamphetamine (MDA) and 3,4-methylenedioxymethylamphetamine (MDMA)
11:50:00 PM		Symposium Session 4	Ms Sonali Mohan	Proteogenomic analysis to identify major source of cancer neoantigens
12:05:00 PM		Symposium Session 4	Dr Ailin Lepletier	Multi-omics analysis of the immune system: unveiling the role of CD49f in regulatory T cells
12:20:00 PM	Lunch			
1:20:00 PM	James Broadbent	Symposium Session 5	<b>Dr David J Beale</b>	Ecosurveillance for environmental health and resilience using systems biology-based approaches
1:40:00 PM		Symposium Session 5	Mr Isaac Akefe	Phospholipase A1 isozyme DDHD2 regulates free fatty acid changes associated with neuromotor and cognitive functions
1:55:00 PM		Symposium Session 5	Ms Harley Robinson	Infrared spectroscopy for rapid quality control and quantitation of lipid samples
2:10:00 PM		Symposium Session 5	Mr Tiago Oliveira	Vincristine resistance induces site-specific modulations of CD38 glycosylation in leukemia cells
2:25:00 PM	Afternoon tea			
3:00:00 PM	Michelle Hill	Symposium Session 6	<b>Dr Amy Heffernan</b>	Targeted and Non-Targeted Analysis of Tyre Constituents in the Environment with LC-QTOF-MS
3:20:00 PM		Symposium Session 6	<b>Dr Tristan Wallis</b>	Lipidomics of learning and memory
3:40:00 PM		Awards and closing remarks	Dr Michelle Hill	

## Posters – November 4, from 4:30 PM

Michael Pfrunder	Sequential reductions of cationic coordination cages in the gas phase
Yushu Gu	Identification of hematoxylin and gallic acid as potential Nsp7 inhibitors of SARS-CoV-2
Shulei Liu	Impact of site-specific N-glycosylation on protein thermal stability
Chun Zhou	The use of tetracycline-off system to study yeast with deficiency in both Ost3p and Ost6p
Shannon Jewell	Gut microbiome metabolites correlate with host lipid metabolism in Parkinson's disease
Rebekah Ziegman	A simple subcellular fractionation strategy to improve coverage of transcription factors in proteomics
Nanthini Jayabalan	Urinary metabolomics profiling reveals correlations with host amino acid and polyamines with altered gut microbiota metabolites
Daniel Ellis	Optimizing Untargeted DIA LC-MS/MS Metabolomics Workflows for Identification of Potential Flavour Compounds from non-Saccharomyces Yeast in Beer and Cider
Kyle Macauslane	Dynamic Subcellular Proteome and Glycoproteome in Influenza A Viral Infection
Pauline Dizon	Identification of optimal extraction conditions for mass spectrometry based glycoproteome analysis
Steven Wallis	Measuring gentamicin concentrations in neonates using just a drop of blood
Chandra Datta Sumi	A validated UHPLC-MS/MS method for the quantification of remdesivir and its metabolite GS-441524 in human plasma
Donna Langley	Quantification of Vitamin D Metabolites by Liquid Chromatography Mass Spectrometry in Paediatric Burns
Manuel Plan	Reliable, Robust Workflows To Deliver The Best Possible Research Data
Thangira Usavamaytee	Exploring the proteome of human exosomes: establishing exosome isolation using a melanoma model



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