

QMSS Information

Chair:

Associate Professor Michelle Hill

Program committee:

Associate Professor Michelle Hill, UQ/TRI

Professor Stephen Blanksby, QUT

Dr Mark Hodson, UQ

Thank you to our sponsors, TRI and UQDI Marketing Team, UQDI Finance and Advancement Teams, Hill Group members, poster award judges & session chairs.



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Queensland Mass Spectrometry Symposium

Event Program

August 15-16

Translational Research Institute | Brisbane Australia

Poster Presenters

Alok Shah, The University of Queensland
 Andre Ng, The University of Queensland
 Ayenachew Bezawork-Geleta, Griffith University
 Daniel Broszczak, Queensland University of Technology
 Dominic Hare, University of Technology Sydney, Florey Institute of Neuroscience & Mental Health
 Duin McDiarmid, The University of Queensland
 Edward Kerr, The University of Queensland
 Helen Won, The University of Queensland
 Jane Mullaney, The University of Queensland
 Jeffrey Molendijk, The University of Queensland
 Kent Yuen Benjamin Yeo, The University of Queensland
 Lin Luo, The University of Queensland
 Lucia Zacchi, The University of Queensland
 Michael Caragata, The University of Queensland & Queensland University of Technology
 Michael Franklin, Princess Alexandra Hospital
 Michelle Hill, The University of Queensland
 Panagiotis Chrysanthopoulos, Griffith University
 Phil Min Choi, The University of Queensland
 Rani George, Griffith University
 Saul Chemonges, The University of Queensland & Queensland University of Technology
 Saurabh Pandey, The University of Queensland
 Thomas Stoll, The University of Queensland
 Tuo Zang, Queensland University of Technology

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Tuesday August 16, 2016 - Afternoon

1.30	Workshop 3 - PTMScan® Technology: An Antibody Based Proteomics Discovery Platform
	Presenter: Dr Charles L Farnsworth , Cell Signaling Technology. <i>Post-translational modifications (PTMs), such as phosphorylation, acetylation, methylation, or ubiquitination, are critical regulators of protein activity and function. Understanding the role of PTMs in disease states like cancer and developing therapeutics to combat their decoupled regulation are areas of intense research. Cell Signaling Technology (CST) has developed a proprietary proteomic method, PTMScan® Technology, that overcomes this challenge by using immunoaffinity enrichment to isolate specific modifications of interest from a protease-digested cell or tissue extract. This workshop will cover the applications of these reagents for the discovery and quantitation of new sites of protein modifications.</i>
2.30	Afternoon Tea
3	Workshop #4 - High Resolution Orbitrap Mass Spectrometry for Life Science Research
	Dr Michael Mariani , Ph.D. Senior Product Specialist LCMS Thermo Fisher Scientific ANZ. <i>"Advanced post translational analysis utilising the Orbitrap Fusion LUMOS Tribrid MS with high capacity ETD."</i> Dr Matthew D. Dun , Ph.D. Leader of the Molecular Oncology Group from the Hunter Medical Research Institute at The University of Newcastle. <i>"Phosphoproteomic characterisation of oncogenic signalling cascades using the Q Exactive Plus reveals synergistic drug targets for the treatment of acute myeloid leukaemia (AML)."</i>
	Poster Awards & Closing
4	Convener Dr Mark Hodson , sponsor Thermo Fisher Scientific A/Prof Michelle Hill - Closing Remarks

Tuesday August 16, 2016 - Morning

11.35	Rapid-fire talks. Chair – Dr Pawel Sadowski
	<p>Dr Leisl Packer, Translational Research Institute Queensland University of Technology. <i>"Elucidating mechanisms of resistance to FGFR inhibitors in FGFR2-mutant endometrial cancer"</i></p> <p>Dr Ayenachew Bezawork-Geleta, Griffith University. <i>"Assembly and functions of mitochondrial respiratory complex II in Breast Cancer"</i></p> <p>Michael Caragata, University of Queensland Diamantina Institute and Institute for Health and Biomedical Innovation, Queensland University of Technology. <i>"Salivary glycoprotein biomarker discovery in Oral Cancers"</i></p> <p>Dr Alok Shah, University of Queensland Diamantina Institute. <i>"Towards a blood test for esophageal adenocarcinoma: Serum glycoprotein biomarker candidates for esophageal adenocarcinoma"</i></p> <p>Saul Chemonges, School of Veterinary Science, The University of Queensland. <i>"SWATH enabled distinction of 'proteogenotype' in a sheep model of intensive care"</i></p> <p>Dr Daniel Broszczak, Institute for Health and Biomedical Innovation, Queensland University of Technology. <i>"Biomarker discovery in chronic ulcer wound fluid using SWATH mass spectrometry"</i></p> <p>Dr Lucia Zacchi, School of Chemistry and Molecular Biosciences, The University of Queensland. <i>"New glycoproteomic tools to study N-glycosylation and to uncover novel glycophenotypes in human diseases"</i></p>
12.30	Networking Lunch

Monday August 15, 2016 - Morning

8.30	Registration
9	Welcome & Opening Remarks - A/Prof Michelle Hill
	Health and clinical applications
9.10	Prof Jochen Mueller , National Research Centre for Environmental Toxicology, The University of Queensland. <i>"Assessing exposure to organic chemicals in the Australian population"</i>
9.35	A/Prof Andreas Moeller , Queensland Berghofer Institute for Medical Research. <i>"Establishing and testing a predictor of disease progression in lung cancer patients"</i>
10.00	Dr Sanmarié Schlebusch , Mater Pathology, Mater Hospital Brisbane <i>"Mass spectrometry in clinical microbiology"</i>
10.30	Morning Tea
	New Applications. Chair – Mr Alun Jones
11	<p>Dr Dominic Hare, Senior Lecturer at the University of Technology Sydney; Head, Analytical Neurochemistry Development Group, Florey Institute of Neuroscience and Mental Health, Melbourne (Sponsored by Agilent Technologies)</p> <p><i>"From rocks to brain: Bringing laser ablation-inductively coupled plasma-mass spectrometry to the biosciences."</i></p>
11.35	Prof Sally-Ann Poulsen , Eskitis Institute for Drug Discovery, Griffith University. <i>"Native state mass spectrometry to identify novel chemical starting points for drug discovery"</i>
12.00	Lunch and poster session #1

The TRI Proteomics Core Facility offers a range of services including:
Research Specific Sample Preparation, Proteomics Sample Preparation,
Mass Spec Analysis, Proteomic Data Processing & Bioinformatics Analysis

WWW.TRI.EDU.AU/PROTEOMICS

Monday August 15, 2016 - Afternoon

1	Workshop 1 - From Ideas to Information: A Critical Appraisal of the Metabolomics Workflow Dr Tom Hennessy, Agilent Technologies Dr Mark Hodson, Metabolomics Australia Node, AIBN, The University of Queensland
2	Afternoon tea
2.30	Workshop 2 - Mass spectrometry for lipid analysis
	Mr Chris Bowen, Shimadzu. <i>"Tools for phospholipid sum and fatty acid composition analyses"</i> Dr Eileen Ryan, University of Melbourne. <i>"Determining the effect of Aspirin on pro-resolvin lipid mediator levels and resolution of inflammation in plasma from both healthy volunteers and intensive care patients"</i>
	Facilities Showcase - Chair- Dr Benjamin Schulz
3.30	<ul style="list-style-type: none"> Amanda Nouwens "Proteomics in the SCMB / AIBN MS facility" Mark Hodson "Metabolomics in Queensland: Metabolomics Australia at UQ" Alun Jones "The Marvellous Mass Spectrometer" Sarah Reed "UQ Centre for Clinical Research Mass Spectrometry Facility" Dorothy Loo "Instruments and Services at the TRI Proteomics Core" Pawel Sadowski "Next Generation Veterinary Proteomics" Peter Tapley "TetraQ Research Infrastructure Centre - Bioanalysis in a GLP Compliant Facility"
5pm	Mixer & poster session #2 Sponsored by Shimadzu

Tuesday August 16, 2016 - Morning

8.45am	Registration
	New technologies. Chair - Dr Mark Hodson
9am	Dr Tara Pukala , Senior Lecturer, School of Physical Sciences The University of Adelaide. <i>"An Added Dimension for Structural Biology: Ion Mobility-Mass Spectrometry studies of biomolecular assemblies"</i> Sponsored by Agilent Technologies
9.35	Dr Berwyck Poad , Central Analytical Research Facility, Queensland University of Technology. <i>"Using Ion Mobility and OzID to Elucidate the Structure of 1-deoxysphingosine"</i>
9.50	Dr Benjamin Schulz , School of Chemistry and Molecular Bioscience, The University of Queensland. <i>"Sweet as, Bro: making glyco-proteomics easy with SWATH."</i>
10.15	Morning Tea
	Plant and food applications. Chair - Dr Jason Mulvenna
10.45	Prof Melissa Fitzgerald , School of Agriculture and Food Science, The University of Queensland. <i>"Mass Spectrometry to unravel the structure of important molecules in food"</i>
11.10	Dr Michelle Colgrave , CSIRO Agriculture Flagship, Queensland Bioscience Precinct. <i>"MS-guided plant breeding - taking the gluten out of barley"</i>