

# 18<sup>th</sup> Lake Louise Workshop on Tandem Mass Spectrometry

Thursday, Dec. 1			
Morning Session			
Chair	Simon Gaskell		
8:30	Gary Glish	Introductory Remarks	
8:40	Pierre Thibault	Data Mining Strategies for Phosphoproteome Analyses of complex cellular extracts	U. Montréal
9:25	Andreas Schlosser <sup>1</sup> , Jens T. Vanselow <sup>2</sup> , Achim Kramer <sup>2</sup>	Mapping of phosphorylation sites with low-specificity proteases	Institute of Medical Immunology
9:45	Peter Verhaert <sup>1</sup> , Gerold Schwarz <sup>2</sup> , Art Kroon <sup>1</sup> , Laetitia Cravello <sup>2</sup> , Hans Vissers <sup>2</sup>	Accurate mass mapping and sequencing of corpus cardiacum neuropeptides by means of MALDI- <i>oa</i> TOF MS/MS and UPLC- <i>oa</i> TOF MS/MS	1. Delft U. Technology 2. Waters
10:05 Discussion			
10:10 Break			
10:35	Andrew Ross, Doug Olson, Xuming Jia, Lingyun Wu	Identification and structural analysis of methylglyoxal-insulin adducts using MALDI-TOF MS and Q-TOF LC-MS/MS	NRC
10:55	B. Van de Plas, G. Van den Bergh, S. Clerens, L. Arckens, P. Verhaert	Studying molecular mechanisms of mouse brain plasticity during development and adulthood: a proteomic approach	U. Leuven
11:15	Susan D. Richardson <sup>1</sup> , F. Gene Crumley <sup>1</sup> , Junghoon Choi <sup>1</sup> , Michael J. Plewa <sup>2</sup> , Elizabeth D. Wagner <sup>2</sup> , Todd H. Mize <sup>3</sup> , Ron Orlando <sup>3</sup> , Richard N. Winn <sup>3</sup> , Leah Williamson <sup>3</sup> , Michael Bartlett <sup>3</sup>	Toxicity-Based Identification of Drinking Water Disinfection By-Products Using ESI-MS and ESI-MS/MS	1. U.S. EPA, 2. U. Illinois, 3. U. Georgia
11:35	Raymond E. March, Errol G. Lewars, Darcy C. Burns, David A. Ellis	A Study of Flavonoid Glycosides Using Mass and Nuclear Magnetic Resonance Spectroscopies Combined with <i>ab initio</i> Chemical Computation	Trent U.
11:55 Discussion			
12:00 Lunch			
Afternoon Session			
Chair	Gary Glish		
14:00	Simonetta Fornarini	Probing ions from simple aromatic molecules by reactivity and by spectroscopy	U. Rome
14:45	Paul Mayer	Competing rearrangement reactions in small gas-phase ionic complexes: The internal SN2 and nitro-nitrite rearrangements in nitroalkane proton-bound pairs	U. Ottawa
15:05	Michael D. Hoffman <sup>1</sup> , Matthew J. Sniatynski <sup>1</sup> , Jason C. Rogalski <sup>1</sup> , J.C. Yves LeBlanc <sup>2</sup> , Juergen Kast <sup>1</sup>	Multiplexed Peptide Modification Analysis by Stepped Parallel CID, Ion Trapping, and Data Processing	1. U. British Columbia, 2. MDS Sciex,
15:25	Terry Cyr	Analysis of the Success Rate of Various Modes of MS/MS Analysis in Identifying Proteins from Peptides using LTQ-FTMS and Q-TOF Systems	Health Canada
15:45 Discussion			
15:50 Break			
16:10	Carlito Lebrilla	Structure elucidation of oligosaccharides by CID and IRMPD	U. California, Davis
16:55	Connell Cunningham, Jr., Gary L. Glish	High Amplitude Short Time Excitation CID using Heavy Gases	U. North Carolina
17:15	Mark Wrona	Metabolite ID using LC/QqTOFMS with collision energy switching - Getting the most out of your first run	Merck Frosst
17:35 Discussion			
18:00 Dinner			

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Thursday, Dec. 1 (con't)			
Evening Session			
Chair	Paul D'Agostino		
20:00	Rob O'Brien, Krista Gaebel	An examination of mechanisms in Dopant Enhanced - Atmospheric Pressure Photolonization or rather PhotoInduced Chemical Ionization	Okanagan Regional Chemical Analysis Centre
20:20	Fadi A Abdi, C. Pan, J. Quinn, E. Peskind, J. Jankovic, J. Nutt, K. Chung, J. Leverenz, A. Samii, M. McIntosh, J. Jin, Y. Wang, J. Li, T. Montine, J. Zhang	Biomarker Discovery in Human Cerebral Spinal Fluid for Neurodegenerative Disease	Applied Biosystems
20:40	Colleen K. Van Pelt, Thomas N. Corso, Jie Li, Celeste Ptak, Xian Huang	Ultra-Low Volume Fraction Collection from NanoLC Columns for Improved Mass Spectrometric Analysis of Protein Phosphorylation and Glycosylation	Advion BioSystems
21:00 Discussion			
21:05 Poster Session			
	S. Jenkins, J. Newman, M.A. Trikoupis, V.Y. Taguchi	Determination of Algal Toxins in Surface and Treated Waters by Solid Phase Extraction and Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS)	Ministry of the Environment
	Paul A. D'Agostino, Carmela R. Jackson Lepage, James R. Hancock, Claude L. Chenier, Adam D. Morcom	Desorption Electrospray Tandem Mass Spectrometry (DESI-MS/MS) of Solid Phase Microextraction (SPME) Fibres	DRDC Suffield
	S.L. Kuchta, A.J. Cessna, K.M. Peru, J.V. Headley	Analysis of lincomycin and spectinomycin in ground water and surface runoff from manure treated fields	National Water Research Institute
	Linda Côté, Anabel Fandiño, Edgar Nägele	HPLC-chip/MSMS mass spectrometry compared to Nano-LC/MSMS mass spectrometry for metabolite identification	Agilent Technologies
	Mark Szewc, Mary Blackburn	Structural Elucidation of Rapamycin Degradents in Solution Using a Linear Ion Trap and Predictive Software: Using MSn to Simplify Compound Identification	Thermo Electron
	Mark van Gils <sup>1</sup> , Irina Dragan <sup>2</sup> , Bas Dolman <sup>2</sup> , Evert-Jan Sneekes <sup>2</sup> and Remco Swart <sup>2</sup>	Off-line 2D LC Approaches for the Analysis of Intact Proteins followed by Proteolytic Digestion and LC/MS/MS Analysis	1 Dionex Corporation, 2 LC Packings
	Benoît Plet, Jean-Marie Schmitter	Analysis of supramolecular complexes between tannins and peptides by MS/MS	Institut Européen de Chimie et Biologie
	John Chik, Dave Schriemer	Statistical distribution of deuterium incorporation offers insights on the deuterium scrambling phenomenon	U. Calgary
	Gordon Slysz, Dave Schriemer	The Trypsin Turboreactor - an integrated system for real-time sub-nanogram protein identification	U. Calgary
	Jonathan Bailey, Kerry M. Peru, Allan J. Cessna, and John V. Headley	An Investigation of Chlorotetracycline Epimerization Using LC-MS/MS	National Water Research Institute
	A Lesimple, M Di falco, Y Richard, S Lesimple, Z Wang, T- H Chan, O A Mamer	Multiple Losses of Neutral C <sub>14</sub> H <sub>14</sub> in the MS/MS of Several Perbenzylether Intermediates in the Synthesis of Green Tea Constituents	McGill U.
	Svitlana V. Shcherbina <sup>1</sup> , Diethard K. Bohme <sup>1</sup> , Vladimir I. Baranov <sup>2</sup> , Alexander Loboda <sup>2</sup>	MALDI MS/MS investigation of organic semiconductor molecules	1. York U., 2. MDS Sciex
	Denis Cyr, Christiane Auray-Blais, Robert Giguère, Bernard Lemieux, Régen Drouin	Biomarkers for Fabry Disease: the importance of LC/MS/MS	U. Sherbrooke
	Clement Poon, Paul Mayer	Fluorescence from ion-target gas collisions	U.Ottawa

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Friday, Dec. 2			
Morning Session			
Chair	Orval Mamer		
8:45	Roman Zubarev	Proteomics-grade de novo sequencing of peptides using complementary fragmentation techniques and high mass accuracy of FT ICR MS.	Uppsala U.
9:30	Robert L. Moritz, Hong Ji, Frederic Schutz, Lisa M. Connolly, Eugene A. Kapp, Terence P. Speed, Richard J. Simpson	Strategies for the fractionation and identification of complex mixtures of proteins and peptides using continuous Free-Flow Electrophoresis (FFE) coupled to RP-HPLC and LC-ESI-MS/MS	Ludwig Institute for Cancer Research, The Walter and Eliza Hall Institute of Medical Research, U. California, Berkeley
9:50	Cory Sonntag, Andrew Ross	Identification of Copper-binding Plant Proteins Using LC-MS/MS.	NRC
10:10 Discussion			
10:15 Break			
10:35	Liang Li	Quantitative Proteomics Based on LC-MALDI MS and MS/MS	U. Alberta
10:55	Gary H. Kruppa, Detlev Suckau	Isotope-Coded Protein Labeling: A New Strategy for Multiplexed Relative Protein Quantitation	Bruker Daltonics
11:15	Dalila Bensaddek, Simon J Gaskell	Multiple MS and tandem MS strategies for the characterisation of cross-linked proteins	U. Manchester
11:35	Xuemei Han, Mi Jin, Kathrin Breuker, Fred McLafferty	Top Down Mass Spectrometry of Large (200 kDa) Proteins	Cornell U.
11:55 Discussion			
12:00 Lunch			
16:30 Broomball Canada v. The World			
18:30 Banquet			
Sat., Dec. 3			
Morning Session			
Chair	Paul Mayer		
8:45	K.W. Michael Siu	Newer Mass Spectrometry-Based Instrumentation for Protein Characterization	York. U.
9:30	Mark P. Barrow <sup>1</sup> , Alex W. Colburn <sup>1</sup> , Matthew C. Gill <sup>1</sup> , Anastassios E. Giannakopoulos <sup>1</sup> , Peter J. Derrick <sup>1</sup> , John V. Headley <sup>2</sup> , Kerv M. Peru <sup>2</sup>	The Ion Conveyor: Development and Applications of an Ion Source Incorporating an Electrodynamic Focusing Device	1.U. Warwick, 2. National Water Research Institute
9:50	Christoph Borchers	12T-FTICR-MS for proteomics and metabolomics	U. North Carolina
10:10 Discussion			
10:15 Break			
10:35	John Fjeldsted	MS/MS Performance Factors of Triple Quadrupole and Q-ToF Mass Spectrometers using an Axial Potential Gradient Acceleration Collision Cell	Aglient Technologies
10:55	A.A.Makarov, K. Strupat, S. Horning, E. Denisov, A. Kholomeev, W. Balschun, O. Lange	Tandem mass spectrometry using LTQ Orbitrap hybrid mass spectrometer	Thermo Electron
11:15	Therese McKenna	Enhanced oa-TOF mass spectrometry by coupling to Ion Mobility	Waters
11:35	Gary Glish	Increasing Peptide Fragmentation in a Quadrupole Ion Trap: Does it Help Identify Unknowns?	U. North Carolina
11:55 Discussion			
12:00 Adjourn and Lunch			