

LAKE LOUISE XII
The 12th Lake Louise Workshop on Tandem Mass Spectrometry

Thursday 2nd December

8:15 Opening Remarks

Chair: Gary Glish

8:20 **Alan Marshall** (Florida State University): *Mass Spectrometric Techniques for Identifying Sites and Strength of Binding in Biomacromolecular Complexes*

9:10 **Don Douglas** (University of British Columbia): *Monte Carlo Simulation of the Tandem Mass Spectrometry of Protein-Protein Noncovalent Complexes*

9:35 Discussion

9:45 Break

10:10 **Joe Loo** (Parke-Davis): *Tandem MS of Proteins and Protein Complexes: Splitting Subtle Associations for Fun and Profit*

11:00 **Paul Kebarle, M. Peschke and A.J. Blades** (University of Alberta): *Production of Metal-Ligand Complexes by Electrospray, Bond Energies of Metal Ligands and Significance in Biocomplexes*

11:25 **George R. Agnes and Mike Bogan** (Simon Fraser University): *He Bath Gas Thermalized Dissociation of Weakly Bound Metal Ions from the Ligand Poly-ethylene Glycol*

11:50 Discussion

12:00 Break for Lunch

Chair: Orval Mamer

13:30 **Gordón McKay** (University of Saskatchewan): *The Use of LC-MS-MS as a High Throughput Quantitative Tool*

14:20 **J. Paul Speir, Gary H. Kruppa, Christian Berg, Bruker Daltonics, Inc.; Frank Pullen, George Perkins, Pfizer Central Research:** *On-line FTMS/MS Methods Compatible with Fast Chromatographic Separations*

14:45 **Daniel Boismenu, Orval A. Mamer, McGill University, Julie Roy and France Varin, Universite de Montreal:** *Determination of Succinylcholine in Plasma by Electrospray Tandem Mass Spectrometry*

15:10 Discussion

15:20 Break

15:35 **Peter Verhaert**, University of Leuven: *Peptidomics: A Valuable Complement to Proteomics*

16:00 **Ken Standing**, University of Manitoba: *Protein Sequencing on a Maldi-QqTOF Instrument*

16:25 **John Klassen**, University of Alberta: *Hydration of DNA Anions in the Gas Phase*

16:50 **Simon J. Gaskell**, Michael Chalmers, Myriam Ferro, Ileana Cristea, UMIST; Les Gora, Charles Smith, Micromass: *New derivatives of peptides and first results from a new instrument for SID*

17:15 Discussion

17:25 Break for Dinner

Chair: John Klassen

20:00 **Tanya N. Gamble**, University of Waterloo: *Deuterium Isotope Effects on the Energetics of Clustering Reactions of Small Organic Ions*

20:30 **Cherokee Hoaglund Hyzer**, Indiana University: *Development of a Gas-Phase Parallel Sequencing Technique Based on Ion Mobility/MS/MS Methods*

21:00 Posters

22:30 Break for Bar

Friday 3rd December

Chair: Pierre Thibault

9:00 **Gerald Hart**, Johns Hopkins University: *Structural Diversity and Abundance of Protein-Bound Glycans: A Challenge to Proteomic Analyses by Tandem MS*

9:50 **Helene Perreault**, University of Manitoba: *Oligosaccharide Determination using Different HPLC/MS Modes*

10:15 Discussion

10:30 Break

10:50 **David Schriemer**, INH Technologies: *High Throughput Drug Discovery Strategies Using FAC-MS; Approaches and Applications*

11:15 **Pierre Thibault**, NRC Institutes for Biological Sciences: *Monitoring Glucosylation and Glycosylation in Complex Glycoproteins Using Tandem Mass Spectrometry*

11:40 Discussion

11:50 Lunch

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Saturday 4th December

Chair: Simon Gaskell

8:30 **Carolyn J. Cassady**, Miami University: *Dissociation of Deprotonated Peptide Ions*

9:20 Ivan K. Chu, Tamer Shoeib, Christopher F. Rodriguez, Alan C. Hopkinson and **K.W. Michael Siu**, York University: *Tandem Mass Spectrometry of Argentinated Oligopeptides*

9:45 **Paul M. Mayer**, University of Ottawa: *Competition Between Dissociation and Isomerization in Proton Bound Cluster Ions: Using Mass Spectrometry and Theory to Gain Information about Complex Reaction Surfaces*

10:10 Discussion

10:20 Break

10:40 **John Holmes**, University of Ottawa: *Tandem Mass Spectrometers and the Determination of Ion Energies and Entropies*

11:05 **Bruce Collings**, University of British Columbia: *Characterization of a Novel Linear Ion Trap Time-of-Flight Mass Spectrometer*

11:30 Jennifer M. Campbell, Anatoli Verenchikov, Peter Juhasz, Marvin L. Vestal, PE Biosystems: *Development of a High Performance MALDI-TOF/TOF Tandem Mass Spectrometer*

11:55 Anne Payne and **Gary Glish**, University of North Carolina: *Chemical Interpretation of Peptide MS/MS Spectra*

12:15 Close

Posters

James I. Langridge and **Guenter K. Eigendorf**, University of British Columbia: Accurate mass, MS2 and MS3 experiments in API modes on a QqTOF system

Richard Ochran et al., University of Ottawa: Competition Between Dissociation and Isomerization in the CH₃CN - CH₃CH₂OH proton bound dimer

Julie McCormack et al., University of Ottawa: Using a Quadrupole Ion Trap to Study Ion-molecule Reactions Involving Complex Potential Energy Surfaces

D. Boismenu, L. Ste-Marie, C. Bomeur, O. Mamer and **J. Montgomery**, McGill University and Notre Dame Hospital, Montreal: The Electrospray-MS/MS Quantitation of 3-Nitro-4-hydroxybenzoate, a Marker of Peroxynitrite Formation, in Microdialysis Samples Following Cerebral Ischemia in the Rat

Anthony K. Ziberna, Finnigan MAT: High Resolution Precursor Selection and ESI-MSn for Polypeptide Sequencing

Anthony K. Ziberna, Finnigan MAT: Automated LC-MS/MS on a Hybrid Tandem Mass Spectrometer

Chunyan Hao, Timothy R. Croley, Raymond E. March, Brenda G. Koenig and Chris D. Metcalfe, Trent University: A GC/MS Study of Persistent Acid Metabolites of Nonionic Surfactant Nonylphenol Ethoxylates

Paul A. D'Agostino, James R. Hancock and Lionel R. Provost, DRES, Suffield, AB: Analysis of Chemical Warfare Agents with a Time-of-Flight Instrument

Y-M She, J.B. Westmore, A. Loboda, A. Krutchinsky, W. Ens, and **K.G. Standing**, University of Manitoba: Further Observations On The Loss Of C-Terminal Amino Acid Residues From Peptide [M + H]⁺ Ions, As Recorded By MALDI Qq/TOF Mass Spectrometry

Lawrence Hogge and Gordon McKay, University of Saskatchewan: Development of a quantitative LC-MS-MS method for the analysis of guanfacine

Xiao Feng and **George R. Agnes**, Simon Fraser University: Single Isolated Droplets with Net Charge: As source of Ions, and as a (Potentially) Interesting Containment Vessel

Mark A. Olsen, Priscilla Offen, Charles W. DeBrosse, Lewis Killmer, Gary Zuber, William M. Clark, SmithKline Beecham Pharmaceutical: Using LC/ES/MS, LC/NMR, NMR And IR Spectroscopic Tools To Determine the Structure Of Process Impurities In Stage 4 And Stage 5 Of Sb 207499

Elena Kitova, John Klassen, University of Alberta: Binding of Single Chain Antibody Variable Domain Fragment to Oligosaccharides Studied by ES-FT-MS

Chungang Gu, **C. Martin**, E. Nikolaev, G. Samuelson, A. Somogyi and V. Wysocki, JOEL USA and University of Arizona: Sector-TOF Hybrid In-Line Coaxial Design for Low Energy SID and High Energy CID MS/MS

Daniel Boismenu, Francois Lepine and Orval Mamer, McGill University and Institut Armand-Frappier-INRS, Nanospray Tips

I.V. Soulimenkov, **V.I. Kozlovski**, A.V. Loboda, A.V. Pikhtev, A.F. Dodonov, V.V. Raznikov, V.V. Trukhan, A.A. Steinman, Institute of Energy Problems in Chemical Physics TAS, PE SCIEX, Institute of Problems in Chemical Physics: Study of Bi- and Tetranuclear Iron-oxo Complexes Using High-Resolution ESI O-TOF MS with a Molecule-Ion Reactor (MIR)