

LAKE LOUISE XIV

The 14th Lake Louise Workshop on Tandem Mass Spectrometry

Thursday, November 29, 2001

Chair - Gord McKay

8:20 Opening Remarks, *Gary Glish*

8:30 Organellar Proteomics, *Alexander Bell*, McGill U.

9:20 A confirmed selenoprotein in the plant kingdom: an opal codon (UGA) encodes selenocysteine in glutathione peroxidase, Yi-Min She (1), Lian-Hai Fu (2), Xian-Feng Wang (2), Yoram Eyal (2), Vic Spicer (1), Werner Ens (1), Gozal Ben-Hayyim (2), *Kenneth G. Standing* (1)

(1) U. of Manitoba; (2) Volcani Center, Bet Dagan, Israel

9:45 Discussion

9:55 Break

10:20 Comprehensive Analysis Of MHC Associated Peptides Using Orthogonal LCMS And Isotope Labeling, *Ad. de Jong*, National Health and Environment, Bilthoven, Netherlands

10:45 The Application of "Top Down" and "Bottom Up" Proteomics in Biopharmaceutical Protein Characterization and Product Development, *Jennifer Cawley*, Whyeth BioPharma

11:10 Quantitative Analysis of the Yeast Proteome by Incorporation of Isotopically Labeled Leucine, *Jiang Heng* and Ann M. English, Concordia U.

11:35 New Tandem MS Strategies Employing ProteinChip* Array Technologies, *Scott Weinberger*, Ciphergen Biosystems

12:00 Discussion

12:10 Break for Lunch

Chair - Gary Glish

14:00 Tandem-FAIMS-MS: Atmospheric Pressure Ion Trapping Using High-Field Asymmetric Waveform Ion Mobility Spectrometry, *Roger Guevremont*, NRC

14:50 Identifying ACE Inhibitors by Immoniom Precursor Ion Scanning on a Quadrupole Tandem Mass Spectrometer, *Andrew Ross*, Steve Ambrose and Doug Olson, National Research Council of Canada

15:15 de novo Sequencing of Peptides Using a TOF-TOF, *Alfred Yergey*, NIH

15:40 Discussion

15:50 Break

16:15 An Atmospheric Pressure Ion Lens to Improve Electrospray Ionization, *Bradley B. Schneider*, Don J. Douglas and David D.Y. Chen, U. British Columbia

16:40 Quad Trap 2001. Improved Ion Trap Mass Scanning Performance Using Asymmetrical Trapping Fields, *Colin Jennison*, Varian

17:05 Utility of High Resolution on a Triple Quadrupole Mass Spectrometer for Tandem MS Applications, *Gary Paul*, Ma'an Amad, Witold Winnik, Maurizio Splendore, ThermoFinnigan

17:30 Discussion

17:40 Break for Dinner

Chair - John Klassen

20:00 Diatomic Dications, *Robert K. Boyd*, NRC

20:50 Rearrangement at the beginning of cluster ion formation: experimental and theoretical studies of the chemistry of electrostatically bound dimer ions, R.A. Ochran, J.A.D., McCormack and *Paul M. Mayer*, U. Ottawa

21:15 Discussion

21:25 Posters (and Beer, Wine)

Posters

Analysis of Nonylphenol and Nonylphenol Ethoxylates in Complex Matrices Using Liquid Chromatography - Tandem Mass Spectrometry, *P.W. Crozier* and V. Y. Taguchi, J. B. Plomley, Y. Mouget, Environment Ontario

Electrospray mass spectrometric database of compounds of chemical defence interest, *Paul A. D'Agostino*, Claude L. Chenier, and James R. Hancock, Defence Research Establishment, Suffield

Enrichment and Structural Analysis of P-Ser and P-His Phosphopeptides using IMAC and PSD MALDI-TOF MS, Doug Olson, *Andrew Ross*, Carmen Dereniwsky, Scott Napper, Jason Kindrachuk and Steve Ambrose, National Research Council of Canada

IRMPD for Tandem Mass Spectrometry in the MALDI-FTMS Experiment, *Paul Speir*, Bruker Daltonics

LC/APCI/MS/MS Determination of Ergosterol in a Prairie Natural Wetland, *John V. Headley*, K.M. Peru, Brij Verma, and Richard D. Robarts, Environment Canada

LC-MS/MS Determination of an Angiotensin-Converting Enzyme Inhibitor in Nutraceutical Formulations of a Fish Protein Hydrolyzate, *Jonathan Curtis*, Dorothy Dennis, and H. Stephen Ewart, Ocean Nutrition Canada Ltd.

Quantification of choline in serum by ESI-MS/MS, *Danielle Dennie*, O.Mamer, K.Phommarinh, C. Jacques and E.P. Treacy, McGill University

Simplified Msⁿ Sequences on an Ion-trap Mass Spectrometer using Filtered Noise Fields (FNF) Techniques, *Dietrich A. Volmer*, Tammy LeRiche, and Stefan Niedziella, Institute for Marine Biosciences, NRC

Parametric Studies of a Multi-Platform ProteinChip* Interface for QqTOF Mass Spectrometry, *Pete Tornatore*, Ciphergen Biosystems

Improving Proteomic Analysis Using PicoFrit Columns and Distilled Water, *Daniel Boismenu*, Christine Jacques, Alex Bell, John Bergeron, and Orval Mamer, McGill U.

Quantitative MS/MS Using Negative Ion Electrospray Mass Spectrometry: Influence of Source Conditions and Site Deuteration in Internal Standards, *G. McKay*, S. Johnson, T. Gurnsey, and L. Hogge, Pharmalytics Inc., U. Saskatchewan

Friday, November 30, 2001

Chair - Orval Mamer

- 8:15 Tautomerization Reactions In Ion-Neutral Complexes Studied By Tandem Mass Spectrometry, *Lisa N. Heydorn* and Johan K. Terlouw, McMaster U
- 8:40 On The Silver(I) Interactions With Amino Acids, *Tamer Shoeib*, K.W. Michael Siu, York U
- 9:05 Glycomodificomics: Concepts, Strategies And Preliminary Applications, *Judith Jebanathirajah* and Peter Roepstorff, U. Southern Denmark/Odense University
- 9:30 High-Resolution Fragment Ion Selection For Precursor Ion Scanning, *Hanno Steen*, Matthias Mann, U. Southern Denmark/Odense University
- 9:55 Discussion
- 10:05 Break
- 10:30 Mass Spectrometric Protein-Based Radical Spin Probing, *P. John Wright* and Ann M. English, Concordia U.
- 10:55 Tandem Mass Spectrometry Applied to the Analysis of Antibiotics in the Aquatic Environment, *Xiu-Sheng Miao*, Chris D. Metcalfe, Trent U.
- 11:20 Top Down Characterization of Proteins by Electron Capture Dissociation Mass Spectrometry: An Application to the Proteome of *Mycobacterium Tuberculosis*, *Ying Ge*,(1) Mariam ElNaggar,(1) Helena Boshoff,(2) Clifton E. Barry, III,(2) Tadhg P. Begley,(1) Fred W. McLafferty (1) (1)Cornell U, (2) NIH
- 11:45 Discussion
- 11:55 Break for Lunch
- 19:00 CONFERENCE BANQUET

Saturday, December 1, 2001

Chair - Gord McKay

- 8:15 Protein Ions, Collisions and MS/MS *Don Douglas* U. British Columbia
- 9:05 ESIMS of Native Proteins: Origin and Number of Charges due to Protonation (+ ion mode) and Deprotonation (- ion mode), *Paul Kebarle*, Michael Peschke, Arthur Blades, U. Alberta
- 9:30 Thermal dissociation of gaseous protein-oligosaccharide complexes, *John Klassen*, U. Alberta
- 9:55 Discussion
- 10:05 Break
- 10:30 Gas Phase Metal Chemistry: Catalysis, Organometallics and Peptide Radicals, *Richard O'Hair*, U. Melbourne
- 11:20 Fragmentation of the b_2 to a_2 , b_2 to a_1 , and a_2 to a_1 Ions in Protonated GGG, GAG, and AGG: A Mechanistic Evaluation using Density Functional Theory and Threshold Collision-Induced Dissociation, H. El Aribi, C.F. Rodriguez, Y. Ling, Y.-P. Tu, A.C. Hopkinson, and *K.W.M. Siu*, York U
- 11:45 Factors Influencing Peptide Product Ion Rearrangement, Laura L. Glish, Anne H. Payne, Ryan M. Danell, Michael R. Asam, *Gary L. Glish*, U. North Carolina
- 12:00 Discussion
- 12:10 Close

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