

LAKE LOUISE VIII
The Eighth Lake Louise Workshop on Tandem Mass Spectrometry

Thursday 30th November

8.30 Welcome and announcements

NEW TECHNIQUES (Bob Boyd, Chair)

8.35 **Don Douglas** (University of British Columbia, Vancouver, British Columbia): New techniques and instrumentation in quadrupole mass spectrometry.

9.20 **Terry Lee** (City of Hope, Duarte, California): Automated LC/MS/MS analysis using a micro-electrospray interface

10.00 **Anthony Alexander** (Bristol-Myers Squibb, Syracuse, New York): Utility of B/E linked scans with a floated collision cell and array detection for sequencing of multiply charged peptide ions

10.20 **Discussion**

10.30 **Coffee**

10.50 **Bob Boyd** (NRC, Halifax, Nova Scotia): A new MS/MS instrument: a double-focussing/TOF hybrid with a magnet bypass

11.10 **Arnie Falick** (PerSeptive Biosystems, South San Francisco, California): High performance MALDI-TOF for the analysis of peptides and proteins

11.30 Mark Bolgar, Scott Summerfield and **Simon Gaskell** (UMIST, Manchester, UK): Novel fragmentations of modified peptides; applications in screening and structural characterization

11.50 **Discussion**

12.00 **Lunch**

ANALYSIS OF CARBOHYDRATES (Pierre Thibault, Chair)

13.30 **Vern Reinhold** (Boston University, Massachusetts): MS/MS and sequencing carbohydrates

14.15 **Joe Banoub** (Dept. of Fisheries and Oceans, St. Johns, Newfoundland): Structure elucidation of complex carbohydrates using tandem MS

14.35 **Pierre Thibault** (NRC, Halifax, Nova Scotia): Separation and characterization of protein glycoforms by CZE MS-MS

14.50 **Discussion**

15.10 **Coffee**

ENVIRONMENTAL APPLICATIONS (Paul D'Agostino, Chair)

- 15.30 **Bill Budde** (USEPA, Cincinnati, Ohio): Tandem mass spectrometry in environmental monitoring
- 16.15 **John Headley** (National Hydrology Research Centre, Saskatoon, Saskatchewan): Applications of MS/MS in the study of riverine biofilm uptake of environmental contaminants
- 16.35 **Discussion**
- 17.00 **Poster viewing**
- 18.00 **Dinner**

COMBINATORIAL CHEMISTRY (seminar session; Dan Kassel, Chair)

- 20.00 **Pat Griffin** (Merck, Rahway, New Jersey): Structural characterization of support-bound ligands by MALDI
- 20.30 **Olga Issakova** (Selectide, Tucson, Arizona): MS/MS of peptide and chemical libraries
- 21.00 **Dan Kassel** (CombiChem, La Jolla, California): Bioanalytical strategies for characterizing receptor/ligand interactions

Friday 1st December

ION TRAPS (Gary Glish, Chair)

- 9.00 **Dave Laude** (University of Texas, Austin, Texas): Application of ion dissociation techniques to electrospray/FTICR analysis of large biomolecules
- 9.45 **Shannon Cornett** (Bruker Analytical, Billerica, Massachusetts): High S/N TOF MS/MS
- 10.05 **John Stults** (Genentech, South San Francisco, California): The utility of MALDI-FTMS for peptide analysis
- 10.25 **Discussion**
- 10.40 **Coffee**
- 11.00 **Richard W. Vachet** and Gary L. Glish (University of North Carolina, Chapel Hill, North Carolina): The effects of different target gases on the MS/MS spectra of peptides in the quadrupole ion trap
- 11.20 **Ray March** (Trent University, Peterborough, Ontario): Ion trapping studies of negative ions
- 11.40 **Discussion**

12.00 **Lunch**

Afternoon free

19.30

for 20.00 **Workshop Dinner**

Saturday 2nd December

FUNDAMENTALS (Simon Gaskell, Chair)

- 8.30 **Keith Jennings** (University of Warwick, Coventry, UK): Electrospray ionisation and tandem mass spectrometry of selected peptides
- 9.15 **Alex Harrison** (University of Toronto, Ontario): Some studies of the gas-phase ion chemistry of peptides
- 9.35 **Gary L. Glish**, Richard W. Vachet and Andrew D. Winders (University of North Carolina, Chapel Hill, North Carolina): High energy CID of peptides: the relationship between kinetic energy loss and fragment ion type
- 9.55 Y. Ho and **Paul Kebarle** (University of Alberta, Edmonton, Alberta): Kinetic energy thresholds in the collision induced dissociation of ribose phosphate, adenosine phosphate and related anions
- 10.15 **Discussion**
- 10.25 **Coffee**

BIOLOGICAL APPLICATIONS (Gordon McKay, Chair)

- 10.40 **Steven Naylor** (Mayo Clinic, Rochester, Minnesota): The use of on-line capillary electrophoresis in the analysis of drug metabolites, MHC plasma peptides and diagnostic protein markers
- 11.25 **Paul D'Agostino**, Jim Hancock and Lionel Provost (DRES, Suffield, Alberta): LC-MS and MS/MS identification of synthetic peptides with moderate magnetic sector resolution
- 11.55 **Tony Mallet** (University of London, UK): Characterization of hydroperoxide phospholipids by FAB MS/MS
- 12.05 **Charles Roe** (Baylor Medical Center, Dallas, Texas): In vitro diagnosis of inherited disorders by MS/MS
- 12.25 **Discussion**
- 12.45 **Close of Workshop**

POSTERS

Daniel Boismenu et al. (McGill University, Montreal, Quebec): Collision - induced oxygen addition to PCB's negative ions

Shannon Cornett et al. (Bruker Analytical, Billerica, Massachusetts): Improved S/N and resolution in FTMS/MS using quadrupolar axialization

Mark Bolgar, **Simon Gaskell** (UMIST, Manchester) and J. Sueiras-Diaz (Ferring Research Institute, Southampton): Analysis of peptides from solid support by matrix-assisted laser desorption ionization mass spectrometry

Bob Bateman, Martin Green, Tim Davis and **Tony Gilbert**(VG Organic, Manchester): New developments in sector/TOF instrumentation

Jim Hancock, Paul D'Agostino and Lionel Provost (DRES, Suffield, Alberta): LC-ESI-MS and ESI-MS/MS of a synthetic peptide reaction mixture

Dane Karr et al. (Teledyne, Mountain View, California): Biomarker analysis via ion trap MS/MS

John Klassen and Paul Kebarle (Department of Chemistry, University of Alberta, Edmonton): Metal ion-ligand bonding energies determined by tandem mass spectrometry

Qimin Li and Gordon McKay (University of Saskatoon, Saskatchewan): ES/MS/MS analysis of the combination drug azatidine with pseudo-ephedrine

Qimin Li and Gordon McKay (University of Saskatoon, Saskatchewan): LC/MS/MS analysis of intact selegiline and its three metabolites in human plasma

Kristine Swiderek et al. (City of Hope, Duarte, California): Automated structural characterization of proteins and peptides using electrospray LC/MS/MS techniques: a presentation of case studies