

# 9th International Symposium on Enabling Technologies

Desmarais Building, University of Ottawa  
55 Laurier Avenue, Ottawa, Ontario

Subject to Change

Thursday, May 4, 2017

8:15 - 8:45

**Registration, pick up badges - Lobby Desmarais Building, U Ottawa**

8:55

Conference Start, Introductions

## Conference Sessions - Room 1160

### Imaging, Ionization and Clinical Applications

9:00 - 9:40

#### **PLENARY SPEAKER**

**Vladimir Baranov, Fluidigm Canada Inc.**

*Imaging of life and its practical challenges*

9:40 - 10:10

**Pierre Chaurand, Universite de Montreal**

*Metal-assisted LDI for high resolution imaging MS of neutral lipids from thin tissue sections*

10:10 - 10:30

**Nidia Lauzon, Universite de Montreal**

**Winner #1 of the Bill Davidson Graduate Student Travel Award**

*Forensic analysis of latent fingerprints by silver-assisted LDI (AgLDI) imaging MS (IMS) on non-conductive surfaces.*

**SPONSORED BY SCIEX**

10:30 - 10:45

#### **3 - 5 min Poster Talks**

**Brandi West, University of Ottawa**

*Quantifying  $\alpha$ -MSH peptides in mouse pituitary using MALDI-FTICR imaging*

**Ethan Yang, Université de Montréal**

*Enhancing Ganglioside Species Detection for MALDI Imaging Mass Spectrometry*

**Aafreen Kaur Bagga, York University**

*Alcohol consumption during gestation period alters phospholipid distribution in developing fetal brain*

10:45 - 11:15

Coffee Break - Lobby Desmarais Building, U Ottawa

11:15 - 11:45

**Richard Oleschuk, Queen's University**

*"Water Fearing" Materials for Making and Manipulating Droplets*

11:45 - 12:15

#### **5 - 5 min Poster Talks**

**Xiaojing Huang, York University**

*Characterizing lipocalin 2 dynamics upon siderophore and iron binding using electrospray ionization mass spectrometry*

**Irina Oganessian, York University**

*Structural Analysis of Membrane Proteins by Time-Resolved Hydrogen/Deuterium Exchange Mass Spectrometry (TRESI-HDX MS).*

**Reza Pourhaghighi, University of Toronto**

*Protein-Protein Interaction Network of Mammalian Brain Revealed by Large-scale Biochemical-Proteomics Mass Spectrometry (BP/MS)*

**Lisa Szymkowicz, York University**

*Phospholipid-based model membrane system for hydrogen-deuterium exchange mass spectrometry of membrane proteins*

**Michael Cohen, York University, Sanofi Pasteur**

*Characterizing the Immune Response to Novel Vaccine Candidates in a Human Whole Blood Assay Using High-Dimensional Single Cell Proteomics*

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12:15 - 1:30	<p><b>Lunch Seminar Room 1160 - Desmarais Building, U Ottawa, Sponsored by Bruker</b></p> <p><i>Proteomic Profiling for Biomarker Discovery and Validation using a Bruker Impact II Q-TOF,</i> Gary H. Kruppa, Ph. D., Vice President 'Omics, Bruker Daltonics Inc., Billerica, MA</p> <p><i>Qualitative Proteomics in Forensics - a case study.</i> Leonard Foster, University of British Columbia</p>
1:30 - 2:00	<p><b>Kevin Bateman, MERCK</b> <i>Quantitation of Therapeutic Proteins Using Mass Spectrometry</i></p>
2:00 - 2:20	<p><b>Timon Geib, Université du Québec à Montréal</b> <i>Absolute Quantitation of Modified Human Serum Albumin for Accurately Monitoring Acetaminophen-Related Hepatotoxicity</i></p>
2:20 - 2:40	<p><b>Ghazaleh Moghaddam, Université du Québec à Montréal</b> <i>Proteomic analysis of mouse and rat liver after acetaminophen treatment by 2D-LC-HRMS/MS</i></p>
2:40 - 3:00	<p><b>David Simon, Queen's University</b> <b>Winner #2 of the Bill Davidson Graduate Student Travel Award</b> <i>Improving Sensitivity and Reducing Duty Cycle with Novel Multi-Electrospray Ionization Emitters</i> <b>SPONSORED BY SCIEX</b></p>
3:00 - 3:30	<p><i>Coffee Break, Lobby Desmarais Building, U Ottawa</i></p>
3:30 - 4:00	<p><b>Jeff Agar, Northeastern University</b> <i>A metabolic labeling approach for intact protein half-life determination in any organism</i></p>
4:00 - 4:20	<p><b>4 - 5 min Poster Talks</b> <b>Vinod Vashistha, GLA University, Mathura</b> <i>RP-HPLC Enantioseparation of (RS)-Ketamine in human plasma via Chiral Derivatization Based on (S)-Levofloxacin</i> <b>Sean Overton, University of Ottawa</b> <i>Portable FT-IR Spectroscopy; an in-field analysis of substandard antibiotics</i> <b>Mathieu Lavallée-Adam, University of Ottawa</b> <i>TargetSeeker-MS: A Bayesian Inference Approach for Drug Target Discovery using Protein Fractionation Coupled to Mass Spectrometry</i> <b>André LeBlanc, McGill University - Lady Davis Institute</b> <i>Multiplexed MRM-based Protein Quantitation Using Two Different Stable Isotope Labeled Peptides for Calibration</i></p>
4:20 - 4:40	<p><b>Uros Kuzmanov, Donnelly Centre, University of Toronto</b> <i>Next Generation Cardiac Phosphoproteomics: From Sample Preparation to Data Interpretation in a Mouse Model of Dilated Cardiomyopathy</i></p>
4:40 - 5:00	<p><b>Irina Slobodchikova, Concordia University</b> <i>LC-MS assay for quantification of 17 mycotoxins in human plasma</i></p>
5:00 - 5:30	<p><b>Philip Britz-McKibbin, McMaster University</b> <i>The Sweat Metabolome of Screen-Positive Cystic Fibrosis Infants: Revealing Mechanisms Beyond Impaired Chloride Transport</i></p>
5:30 - 7:00	<p><b>POSTER SESSION &amp; COCKTAIL RECEPTION</b> <i>Lobby Area of Desmarais Building</i></p>

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**Friday, May 5, 2017**

8:15 - 8:45	<p><i>Registration &amp; Breakfast Seminar, Sponsored by SCIEX - Room 1160</i>  <b>Introducing the New X500B QTOF Mass Spectrometer for a simpler LC-MS solution for routine biomolecular characterization of proteins, lipids and metabolites</b>            Brigitte Simons, SCIEX, Concord, Ontario, Canada</p>
<b>Lipids, Screening and Structural MS</b>	
9:00 - 9:40	<p><b>PLENARY SPEAKER - 2017 Ken Standing Award Winner</b>  <b>Leonard Foster, University of British Columbia</b>  <i>Developing and applying proteomics in agriculture and medicine</i>  <b>SPONSORED IN PART BY UNIVERSITY OF MANITOBA</b></p>
9:40 - 10:00	<p><b>Carlos Canez, Carleton Mass Spectrometry Center</b>  <i>Recent improvements in TrEnDi to increase the sensitivity and selectivity of plasmalogen PE and plasmalogen PC lipids</i></p>
10:00 - 10:20	<p><b>Katrin Blank, Carleton University</b>  <i>Exploration of glycerophospholipid dynamics during hibernation and freeze tolerance</i></p>
10:20-10:50	<p><b>Gillian Thomas, Carleton University</b>  <i>Optimization of Trimethylation Enhancement using Diazomethane (TrEnDi) derivatization for MS-based analysis of sphingomyelin and cardiolipin</i></p>
10:50 - 11:20	<p><i>Coffee Break Seminar - Room 1160,</i>  <b>Utilization of High Resolution Accurate Mass LCMS for Large Molecule Quantitation</b>            Keeley Murphy, Senior Marketing Specialist - Pharma/Biopharma, Thermo Fisher Scientific</p>
11:20 - 11:50	<p><b>Catherine Costello, Boston University</b>  <i>Divide and Conquer Strategies for Glycan Structural Determinations</i></p>
11:50 - 12:10	<p><b>Prem Kumarathasan, Health Canada</b>  <i>Proteomic analyses in environmental particle toxicity testing</i></p>
12:10 - 12:30	<p><b>Maxime Sansoucy, Université du Québec à Montréal</b>  <i>Comparative mussel proteomics for studying proteins associated to byssus filament formation by 2D-LC-MS/MS</i></p>
12:30 - 1:30	<b>LUNCH BREAK - Free Time</b>
1:30 - 2:00	<p><b>Daniel Figeys, University of Ottawa</b>  <i>Exvivo screening of human gut microbiome by RapidAIM</i></p>
2:00 - 2:20	<p><b>Samuel Shields, Carleton University</b>  <i>Solution phase charge inversion of methylated phosphatidylcholine for the identification of fatty acyl components via collision induced dissociation</i></p>
2:20 - 2:40	<p><b>Haidy Matwally, University of Western Ontario</b>  <i>Molecular dynamics simulations of the electrospray process, why do crown ethers suppress protein supercharging?</i></p>

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2:40 - 3:00	<i>Coffee Break, Lobby Desmarais Building, U Ottawa</i>
3:00 - 3:30	<b>Christoph Borchers, UVic Genome BC Proteomics Centre</b> <i>New Developments in Crosslinking-based Structural Proteomics</i>
3:30 - 4:00	<b>Derek Wilson, York University</b> <i>Hydrogen Deuterium Exchange in Biopharmaceutical Drug Development</i>
4:00 - 4:30	<b>Ann English, Concordia University</b> <i>Factors affecting the protein interactions found in GST-Ccp1 pulldowns from yeast cells</i>
4:30	<b><i>Closing Remarks and Conference End</i></b>