Subject to Change
**Updated - 2016-03-31**

# 32nd International Symposium on Microscale Separations and Bioanalysis

Queen's Landing
155 Byron Street, Niagara-on-the-Lake,
Ontario, Canada

## AGENDA

| ***Sunday, April 3, 2016*** | | |
|---|---|---|
| ***10:00 - 18:00*** | ***On-Site Registration (cash only) and Badge Pick-up***<br>***Lower Lobby*** | |
| ***13:00 - 16:30*** | ***SHORT COURSES***<br>*Short Course Fee on Site: $100 Canadian (cash only please)* | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***13:00 - 14:30*** | *Option B*<br><br>*B1 - Quality by Design for Analytical Method Development,*<br><br>*presented by:*<br>*Cari Sanger, Kantisto BV* | *Option A*<br><br>*A1 - Sampling and Sample Preparation for Bioanalysis,*<br><br>*presented by:*<br>*Janusz Pawliszyn, University of Waterloo* |
| ***14:30 - 15:00*** | ***COFFEE BREAK*** | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***15:00 - 14:30*** | *Option B*<br><br>*B2 - New Advances in Biologics/Biopharmaceutical Characterization using CE and CE-MS,*<br><br>*presented by:*<br>*G.W. Somsen, R. Haselberg,*<br>*Vrije Universiteit - Amsterdam* | *Option A*<br><br>*A2 - Bioinformatics and Statistical Methods for Metabolomics,*<br><br>*presented by:*<br>*David Wishart, University of Alberta* |
| | ***Grand Georgian Ballroom*** | |
| ***17:00 - 17:15*** | ***OPENING REMARKS*** | |
| ***17:15 - 17:50*** | *Plenary 1 -* ***Elaine Holmes, Imperial College, London (UK)***<br>*Systems Biology in Clinical Medicine* | |
| ***17:50 - 18:30*** | *Plenary 2 -* ***Stephen Rappaport, University of California, Berkeley (USA)***<br>*An Untargeted Adductomics Pipeline for Cys34 of Human Serum Albumin* | |
| | ***Atrium - Foyer of Grand Georgian Ballroom*** | |
| ***18:30 - 20:00*** | ***Reception, select Wines and Hors D'oeuvres*** | |

MSB 2016
Niagara-on-the-Lake, Canada
April 3-7, 2016

# Monday, April 4, 2016
# Morning Session

| | | |
|---|---|---|
| **07:00 - 08:30** | **Breakfast - Tara Restaurant** | |
| **08:00 - 18:00** | **On-Site Registration (cash only), Badge Pick-up - Lower Lobby** | |
| **07:50 - 8:40** | **Grand Georgian Ballroom:**<br>Plenary 3 - **Arnold O. Beckman Award Presentation, TBA** | |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **08:45 - 12:00** | **Multidimensional Separation Session - Sponsored By U Waterloo, Organizers: Tadeusz Gorecki/Mike Bowser; Ion Mobility Session:- Organizers:: John Mcclean/Brian Clowers** | **Future Stars in Microseparations**<br>**Session Organizers: Philip Britz-McKibbin** |
| **08:45 - 09:15** | Keynote - **Frédéric Lynen, Ghent University (Belgium)**<br>*Microscale Analysis of Therapeutic Oligonucleotides via Comprehensive Liquid Chromatography and Capillary Electrophoresis* | **(8:45 - 9:05) Deirdre Cabooter, Leuven University (Belgium)**<br>*Detailed Evaluation of Mass Transfer Phenomena in Hydrophilic Interaction and Reversed-Phase Liquid Chromatography under Identical Packing Conditions* |
| **09:15 - 09:35** | **Alexander Johnson, University of Minnesota (USA)**<br>*Capillary Electrophoresis Coupled with Micro Free Flow Electrophoresis for High Speed Two Dimensional Separations of Biological Samples* | **(9:05 - 9:25) Jesse Greener, Laval University (Canada)**<br>*Laminar Flow Separation of Bacterial Biofilms Coupled with Optical and Chemical Visualization for Analysis of Bio-catalytic Products* |
| **09:35 - 09:55** | **Wim de Boer, Vrije Universiteit Amsterdam (Netherlands)**<br>*Program Curfit2D: Two-Dimensional Alignment of GC-GC Chromatogram* | **(9:25 - 9:45) Takayuki Kawai, RIKEN Quantitative Biology Centre (Japan)**<br>*High Performance CE-MS System for Single Cell Analysis* |
| **09:55 - 10:15** | **Claudio Brunelli, Pfizer Global Research & Development (UK)**<br>*Peaks Behaving Badly: Demonstrating On-column Reactivity by Means of 2D-LC and Other Mode of Separation in the Analysis of Innovative Pharmaceutical Products Under Development.* | **(9:45 - 10:05) Rawi Ramautar, Leiden University (Netherlands)**<br>*Two Birds with One Stone: A Single CE-MS Approach for Anionic and Cationic Metabolic Profiling* |
| **10:15 - 10:30** | **(10:15 - 10:30) COFFEE BREAK** | **(10:05 - 10:20) COFFEE BREAK** |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **10:30 - 11:00** | Keynote - **Stephen J. Valentine, West Virginia University (USA)**<br>*Developing IMS and HDX Techniques/Models for Characterizing Protein Complex Structure* | **(10:20 - 10:40) Karl Jobst, Ontario Ministry of the Environment (Canada)**<br>*A QuadrupoleTOF-MS Coupled to GCxGC Using Atmospheric Pressure Chemical Ionization: Characterization of Environmental Samples by GCxGC-MS using an LC-MS Instrument* |
| **11:00 - 11:20** | **Brandon T. Ruotolo, University of Michigan (USA)**<br>*Collision Induced Unfolding: A New Paradigm in Protein Stability Measurements* | **(10:40 - 11:00) Emily Grace Armitage, Universidad San Pablo (Spain)**<br>*Metabolomics as a Tool to Explore the Mechanisms of Action of Anti-leishmanial Compounds* |
| **11:20 - 11:40** | **Brian Clowers, Washington State University (USA)**<br>*Isolation of Chemical Classes using Drift Gas Modifiers and Ion Mobility Mass Spectrometry* | **(11:00 - 11:20) Dajana Vuckovic, Concordia University (Canada)**<br>*Dispersive Solid-phase Microextraction for Untargeted LC-MS Metabolomics of Human Plasma* |
| **11:40 - 12:00** | **Rafael Montenegro-Burke, Vanderbilt University (USA)**<br>*High Dimensional Separation Strategies in Analysis of Complex Biological Samples using Ion Mobility-Mass Spectrometry* | **(11:20 - 11:40) Gabor Jarvas, University of Pannonia (Hungary)**<br>*Introducing GUcal: A New Application for Capillary Electrophoresis-based Glycan Analysis*<br><br>**(11:40 - 12:00) Heather Bean, Arizona State University (USA)**<br>*Discovering Biomarkers using GCXGC-TOFMS for the Detection of Infection Phenotypes Directly from Lung Samples* |
| **12:00 - 13:00** | **Grand Georgian Ballroom**<br>*Presentation: Capturing the Best Selectivity in a Water-fall of Ions; Differential Ion-Mobility Enabled Mass Spectrometry, Presented by: Edna Betgovargez, Marketing Development Manager, SCIEX (USA) & Brigitte Simons, Technical Applications Specialist, SCIEX (Canada)* | **Science Cafe, Presented by SCIEX**<br><br>**Lunch will be served.** |
| **8:30 - 5:00** | **SCIEX Presentation Room** | **Scarlet Room** |

## *Monday, April 4, 2016*
## *Afternoon Session*

| | | |
|---|---|---|
| ***13:00 - 13:30*** | ***3 Minute Talk (Selected from Posters)*** | |
| | ***Somerset & Loyalist*** | ***Somerset & Loyalist*** |
| ***13:30 - 14:30*** | ***Poster Session***<br>*Coffee & Dessert served* | ***Poster Session Sponsored by Apotex*** |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***14:30 - 17:45*** | ***Sample Preparation Session***<br>***Session Organizers: Karen Waldron/Dajana Vuckovic*** | ***Biologics & Glycan Analysis Session***<br>***Session Organizers: Govert Somsen/Lynn Genarro***<br>*Session Sponsored by Genentech* |
| ***14:30 - 15:00*** | *Keynote -* ***Fred Regnier, Purdue University (USA)***<br>*Accelerating The Sample Preparation Component* | *Keynote -* ***Christian Neusüß, Aalen University (Germany)***<br>*Glycan and Intact Protein Analysis: from CE-MS to CE-CE-MS* |
| ***15:00 - 15:20*** | ***Saara Mikkonen, KTH Royal Institute of Technology (Sweden)***<br>*Microfluidic Isoelectric Focusing of Amyloid Beta Peptides Followed by Micropillar-MALDI-MS* | ***Jason Wood, Bruker (USA)***<br>*Automated de novo Identification and Profiling of Disulfide Bonds in Monoclonal Antibodies Including Analysis of Low Level DSB Scrambling* |
| ***15:20 - 15:40*** | ***Jason Fiering, Draper Inc. (USA)***<br>*Acoustic Bacteria Separation From Blood in Plastic Chips* | ***Guinevere S.M. Kammeijer, Leiden University Medical Center (Netherlands)***<br>*CE-ESI-MS as a tool for Glycomic and Glycoproteomic Analysis of Biopharmaceuticals* |
| ***15:40 - 16:00*** | ***Julie Schappler, University of Geneva (Switzerland)***<br>*Extraction of Polar Metabolites from CSF by Electromembrane Extraction* | ***Erdmann Rapp, Max Planck Institute (Germany)***<br>*High-Throughput Glycoprofiling via High-Performance Glycoanalysis Based on xCGE-LIF* |
| ***16:00 - 16:15*** | ***COFFEE BREAK*** | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***16:15 - 16:45*** | *Keynote -* ***Doo Soo Chung, Seoul National University (Korea)***<br>*Sample Preconcentration In-line Coupled with Capillary Electrophoresis-Mass Spectrometry* | *Keynote -* ***Andras Guttman, SCIEX (USA)***<br>*The Measurement for Glycobiomarkers: Mining the FFPE Depositories* |
| ***16:45 - 17:05*** | ***David Fuchs, University of Copenhagen (Denmark)***<br>*The Electro Membrane Extraction Autosampler?: A Fully Automated Integration of Rapid Sample Extraction, Enrichment and LC-MS Analysis* | ***Thomas Niedringhaus, Genentech (USA)***<br>*Implementation of Microchip Electrophoresis for Quality by Design of Protein Therapeutics: Understanding the Link between Critical Quality Attributes and Process Characterization* |
| ***17:05 - 17:25*** | ***Wan Aini Wan Ibrahim, University of Technology - Malaysia (Malaysia)***<br>*Hybrid Sol-Gel Graphene-based Magnetic Nanoparticles as a Clean-up Adsorbent for Direct Analysis of Acrylamide Prior to GC-MS* | ***Kiyohito Shimura, Fukushima Medical University (Japan)***<br>*Determination of a Charge-variant Pattern of Recombinant Erythropoetin using a Unified Affinity Chromatography-CIEF Device* |
| ***17:25 - 17:45*** | ***Megan Weisenberger, University of Minnesota (USA)***<br>*In Vivo Monitoring of Branched Chain Amino Acids Dynamics Using Online Microdialysis-Capillary Electrophoresis* | ***Bryan Fonslow, SCIEX (USA)***<br>*High Resolution Analysis of APTS-labeled Glycans by CESI-MS* |
| ***Adjourn*** | ***Free Time*** | ***Suggested activities are listed at the Registration Desk and on the conference website (www.msb2016.org)*** |

## *Tuesday, April 5, 2016*
## *Morning Session*

| | | |
|---|---|---|
| ***07:00 - 08:30*** | ***Breakfast - Tara Restaurant*** | |
| ***08:00 - 18:00*** | ***Registration, Information - Lower Lobby*** | |
| ***08:00 - 8:40*** | ***Grand Georgian Ballroom:***<br>***Plenary 4 - Jean-Louis Viovy, Institute Curie, Paris (France)***<br>*Pushing Microfluidics towards Clinical Application* | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***08:45 - 12:00*** | ***Advanced Column Technologies***<br>***Session Organizers: Charles Lucy/ Luis Colon*** | ***Clinical Diagnostics & POC Devices***<br>***Session Organizers: Angelika Niemz/Oleg Mayboroda*** |
| ***08:45 - 09:15*** | *Keynote -* ***Wilm de Malsche, Vrije Universiteit Brussel (Belgium)***<br>*Achieving High Efficiencies and Peak Capacities using Pillar Array Columns* | *Keynote -* ***Jonathan Posner, University of Washington (USA)***<br>*Highly Sensitive Point of Care Immunoassays Using Electrokinetics on Paper* |
| ***09:15 - 09:35*** | ***Tom Kupfer, MilliporeSigma (Germany)***<br>*Faster Analysis of Monoclonal Antibodies using Silica Monoliths Designed for Bioanalysis* | ***Christopher Dixon, University of Toronto (Canada)***<br>*Ink-Jet Printed Digital Microfluidic Devices for Portable Diagnostics of Infectious Disease* |
| ***09:35 - 09:55*** | ***Yehia Mechref, Texas Tech University (USA)***<br>*Isomeric Separation of Glycans and Glycopeptides by Porous Graphitic Carbon (PGC) Columns at Elevated Temperatures* | ***Radim Knob, Brigham Young University (USA)***<br>*Affinity Monoliths and Cryogels for On-chip Extraction of Bacterial DNA for Sepsis Diagnosis* |
| ***09:55 - 10:15*** | ***Xiuling Li, Dalian Institute for Chemical Physics (China)***<br>*Bioinspired Saccharide-Saccharide Interaction and Smart Polymer for Specific Enrichment of Sialylated Glycopeptides* | ***Nicklas N. Poulsen, University of Copenhagen (Denmark)***<br>*Flow-Induced Dispersion Analysis for Probing Anti-dsDNA Antibody Binding Heterogeneity in Systemic Lupus Erythematosus Patients* |
| ***10:15 - 10:30*** | ***COFFEE BREAK*** | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***10:30 - 11:00*** | *Keynote -* ***Stephen Groskreutz, University of Pittsburgh (USA)***<br>*Spatial and Temporal Column Temperature Changes for Enhanced Performance in Capillary Liquid Chromatography* | *Keynote -* ***David Goodall, Paraytec Ltd (UK)***<br>*Fluid-flow Cell-imaging for Cancer Monitoring and Diagnostics* |
| ***11:00 - 11:20*** | ***Zuqin Xue, University at Buffalo, SUNY (USA)***<br>*Nanodiamonds-silica Composite as Stationary Phases for Liquid Chromatography* | ***Jeanne Bataille, Institut Galien Paris Sud (France)***<br>*Toward the Development of a Miniaturized Analytical Tool for the Diagnosis of Familial Transthyretin Amyloidosis* |
| ***11:20 - 11:40*** | ***Xiaoping Wu, Fuzhou University (China)***<br>*Preparation of Ionic Liquid-based Hybrid Monolithic Column for CEC using Polyhedral Oligomeric Silsesquioxanes via Thiol-ene Click Reaction* | ***Aliakbar Mohammadzadeh, McMaster University (Canada)***<br>*Film Lamination-based Manufacture of a Microfluidic Device to Accumulate DNA from Samples with Potential Application in Sepsis Diagnostics* |
| ***11:40 - 12:00*** | ***Charles Lucy, University of Alberta (Canada)***<br>*Polar Functionalization of Carbon for Reversed Phase Liquid and Hydrophilic Interaction Liquid Chromatography* | ***Noritada Kaji, Nagoya University (Japan)***<br>*High-throughput Cell Deformability Measurements by Microfluidic Devices for Cancer Diagnosis* |
| ***12:00 - 13:00*** | ***Grand Georgian Ballroom - Science Cafe,***<br>*Presentation: Technical Developments on CE/MS Interfaces and its Impact on Applications*<br>*Presented by: Martin Greiner, Agilent Technologies (Germany)* | ***Science Cafe, AGILENT TECHNOLOGIES***<br><br>***Lunch will be served.*** |
| ***8:30 - 5:00*** | ***AGILENT Presentation Room*** | ***Scarlet Room*** |

## *Tuesday, April 5, 2016*
## *Afternoon Session*

| | | |
|---|---|---|
| ***13:00 - 13:30*** | ***3 Minute Talk (Selected from Posters)*** | |
| | ***Somerset & Loyalist*** | ***Somerset & Loyalist*** |
| ***13:30 - 14:30*** | ***Poster Session***<br>*Coffee & Dessert served* | ***Poster Session Sponsored by Wynsep*** |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***14:30 - 17:45*** | ***Nucleic Acids, Forensics & Biosensors Session***<br>***Session Organizers: Feng Li/Bruce McCord*** | ***Pharmaceutical & Chiral Analysis Session***<br>***Deidre Cabooter/Julie Schappler*** |
| ***14:30 - 15:00*** | *Keynote -* ***Leyla Soleymani, McMaster University (Canada)***<br>*Developing Fully-integrated Biosensing Systems on the Laboratory Benchtop* | *Keynote -* ***Janusz Pawliszyn, University of Waterloo (Canada)***<br>*SPME in Bioanalysis: Where Does it Fit?* |
| ***15:00 - 15:20*** | ***Xiaolong Yang, Brock University (Canada)***<br>*Constructing a 3D-DNA Nanomachine to Achieve Rapid Isothermal Signal Amplification for Nucleic Acids Detection* | ***Yoann Ladner, Montpellier University (France)***<br>*Development of an Integrated Bioanalytical Methodology for the Analysis of Therapeutic Antibodies* |
| ***15:20 - 15:40*** | ***Audrey Ric, Picometrics (France)***<br>*Selection of Aptamers using Capillary Electrophoresis and LEDIF-UV Absorbance Detection* | ***Gerlinde Grabmann, University of Vienna (Austria)***<br>*The Influence of Buffer Components on the Binding of Cisplatin Toward 5-dGMP Studied by Means of CZE-UV and CZE-ESI-MS* |
| ***15:40 - 16:00*** | ***Alexander Stasheuski, York University (Canada)***<br>*Achieving Single-Nucleotide Specificity in Direct Quantitative Analysis of Multiple microRNAs (DQAMmiR)* | ***Afsal Mohammed K M, Sultan Qaboos University (Oman)***<br>*Enantiomeric Separation Using Micro Column and Chiral Surfactants with Microfluidic Chemiluminescence Detection* |
| ***16:00 - 16:15*** | ***COFFEE BREAK*** | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***16:15 - 16:45*** | *Keynote -* ***Igor Lednev, University at Albany - SUNY (USA)***<br>*Raman Microspectroscopy and Advanced Statistics for Forensic Applications and Medical Diagnostics* | *Keynote -* ***Joseph Chamieh, Montpellier University (France)***<br>*Size Characterization of Commercial Micelles and Microemulsions by Taylor Dispersion Analysis* |
| ***16:45 - 17:05*** | ***Francisco Castiello, McGill University (Canada)***<br>*Impedance Biosensors as a Tool for Dynamic Monitoring of Cell Secretions* | ***Stanislav Kislyuk, KU Leuven (Belgium)***<br>*Towards the Development of a Predictive Drug Uptake Model using Zebrafish* |
| ***17:05 - 17:25*** | ***Peng Wu, Sichuan University (China)***<br>*Photocatalytic DNA-Intercalated Dye Complex for Visual Bioassays* | ***Andre Kpaibe, Montpellier University (France)***<br>*Quality Control of Snake Venoms Raw Substances: Electrophoretic and Chemometric Approach* |
| ***17:25 - 17:45*** | ***Bruce McCord, Florida International University (USA)***<br>*The Application of Alkaline Lysis and Pressure Cycling in Forensic Differential Extraction* | ***Tom Kupfer, MilliporeSigma (Germany)***<br>*Immobilization of Proteins on Silica Monoliths and their Application in Chiral Analysis* |
| ***19:00- 23:00*** | ***Grand Georgian Ballroom*** | |
| ***19:00 - 23:00*** | ***Cocktails & Gala Dinner*** | |

# Wednesday, April 6, 2016
# Morning Session

| | | |
|---|---|---|
| **07:00 - 08:30** | **Breakfast - Tara Restaurant** | |
| **08:00 - 18:00** | **Registration, Information- Lower Lobby** | |
| **08:00 - 8:40** | **Grand Georgian Ballroom:**<br>**Plenary 5 - Oliver Fiehn, University of California, Davis (USA)**<br>*Second-generation Metabolomics: Merging Untargeted and Targeted Data Acquisitions with MS-Data Independent Analysis and Virtual MS/MS Libraries* | |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **08:45 - 12:00** | **Fundamentals & Biointeractions**<br>**Session Organizers: Sergey Krylov/Steve Weber** | **Comprehensive-OMICS**<br>**Session Organizers: Rawi Ramataur/Oleg Mayboroda**<br>*Session sponsored by Human Metabolome Technologies* |
| **08:45 - 09:15** | *Keynote -* ***Gert Desmet, Vrije Universiteit Brussel (Belgium)***<br>*What Causes the High Efficiency and Speed of Core-shell Particles and How Can Micro-scale Separations Benefit From This Knowledge* | *Keynote -* ***Liang Li, University of Alberta (Canada)***<br>*High-Performance Chemical Isotope Labeling LC-MS for Comprehensive and Quantitative Metabolomics* |
| **09:15 - 09:35** | ***Masayasu Kuwahara, Gunma University (Japan)***<br>*Xenonucleic Acid Aptamers: Development Towards In Vitro Delection of Artificial Biopolymer Ligands/Receptors* | ***Michael Laemmerhofer, University of Tuebingen (Germany)***<br>*Lipidomics Approach to Study Lipid Oxidation Products as Markers of Oxidative Stress* |
| **09:35 - 09:55** | ***Frederic Ginot, Picometrics Technologies (France)***<br>*micro-LAS: A Technological Breakthrough to Perform Size Analysis of DNA with Unrivalled Sensitivity and Robustness* | ***Alicia DiBattista, McMaster University (Canada)***<br>*High-throughput Metabolomics Discovery for Early Detection of Cystic Fibrosis in Newborn Screening* |
| **09:55 - 10:15** | ***Vladislav Dolnik, Alcor BioSeparations LLC (USA)***<br>*Trace and Ultratrace Analysis by Isotachophoresis/Zone Electrophoresis on Chip* | ***Andrey Andriyanov, Lomonosov Moscow State University (Russia)***<br>*Detection of Low Molecular Weight Organic Compounds: Potential Biomarkers of Colorectal Cancer in Exhaled Breath Condensate* |
| **10:15 - 10:30** | **COFFEE BREAK** | |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **10:30 - 11:00** | *Keynote -* ***Michael Breadmore, University of Tasmania (Australia)***<br>*Electrokinetic Size and Mobility Traps for Extraction, Concentration and Separation of Pharmaceuticals and Proteins* | *Keynote -* ***Alexander Ivanov, Northeastern University (USA)***<br>*Enabling Deep Proteomic Profiling of Small Populations of Rare Cells Isolated from Whole Blood and Other Tissue Samples* |
| **11:00 - 11:20** | ***David Hage, University of Nebraska (USA)***<br>*Analysis of Drug-Protein Interactions using High-Performance Affinity Microcolumns: Recent Developments for Clinical Samples and Personalized Medicine* | ***Adriana Nori de Macedo, McMaster University (Canada)***<br>*Metabolomics Characterization of Sweat from Screen-positive Cystic Fibrosis Infants* |
| **11:20 - 11:40** | ***Mirzo Kanaotov, York University (Canada)***<br>*Simultaneous Determination of Protein Concentration and Equilibrium Constant* | ***Christoph Borchers, UVic-Genome BC Proteomics Centre (Canada)***<br>*Combining Targeted and Untargeted LC-MS-based Metabolomics for Comprehensive Profiling of Bile Acids in Human and Mouse* |
| **11:40 - 12:00** | ***Svetlana Krylova, York University (Canada)***<br>*Analysis of DNA- and Protein-Modifying Enzymatic Reactions by Micellar Electrokinetic Chromatography* | ***Nathan Magarvey, McMaster University (Canada)***<br>*Graphing and Fingerprinting Microbial Natural Product Chemical Space* |
| **12:00 - 13:00** | **Grand Georgian Ballroom, Science Cafe**<br>*Presentation: How to drastically improve run-to-run reproducibility in CE: controlling of streaming potential, Presented by: Vadim M. Okun, Project Manager Lumex Instruments (Canada)*<br>*Presentation: CE-UV Analysis of a microRNA and Protein with LUMEX' Capel 205 Instrument, Presented by: Maxim V. Berezovsky, Associate Professor, University of Ottawa (Canada)* | **Science Cafe, LUMEX INSTRUMENTS**<br><br>**Lunch will be served.** |

## Wednesday, April 6, 2016
## Afternoon Session

| | | |
|---|---|---|
| **13:00 - 13:30** | **3 Minute Talk (Selected from Posters)** | |
| | **Somerset & Loyalist** | **Somerset & Loyalist** |
| **13:30 - 14:30** | **Poster Session**<br>*Coffee & Dessert served* | **Poster Session sponsored by Merck** |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **14:30 - 17:45** | **Environmental Analysis**<br>**Session Organizers: Karl Jobst/Chris Le** | **Microfluidics & Lab-On-A Chip**<br>**Session Organizers Aaron Wheeler/Ravi Selvaganapathy** |
| **14:30 - 15:00** | *Keynote -* ***Frank Dorman, Pennsylvania State University (USA)***<br>*Why is Firefighting Dangerous?: Characterization of Mixed-Halogen and Furans in Fire Debris using GCXGC-TOFMS and APGC-MS/MS* | *Keynote -* ***Jean-Louis Viovy, Institut Curie Paris (France)***<br>*Using Microfabrication to Build Complex and Functional Cell Arrays* |
| **15:00 - 15:20** | ***Sam Li, National University of Singapore (Singapore)***<br>*Environmental Metabolomics of Freshwater Phytoplankton* | ***Brendon Seale, University of Toronto (Canada)***<br>*Digital Microfluidic Immunoprecipitation for the Microscale Targeted Analysis of Proteins from Biological Samples using Mass Spectrometry* |
| **15:20 - 15:40** | ***Fardin Ahmadi, University of Waterloo (Canada)***<br>*Time Weighted Average Concentration Monitoring based on Thin Film Solid Phase Microextraction* | ***Adelina Smirnova, University of Tokyo (Japan)***<br>*Gradient Separations in Extended Nanospace: Amino Acid Analysis* |
| **15:40 - 16:00** | ***Nadine Wellington, McMaster University (Canada)***<br>*Firefighter Exposure to Wood Smoke: Novel Markers for Improved Risk Assessment and Mitigation* | ***Paresa Modarres, McGill University (Canada)***<br>*Modeling and Analysis of a Novel Approach for Particle Separation Using Time-Varying Amplitude Dielectrophoresis* |
| **16:00 - 16:15** | **COFFEE BREAK** | |
| | **Imperial Ballroom** | **Grand Georgian Ballroom** |
| **16:15 - 16:45** | *Keynote -* ***Eric Reiner, Ministry of Environment & Climate Change of Ontario (Canada)***<br>*Strategies and Techniques for Identifying Target and Non-target Compounds in Environmental Samples* | *Keynote -* ***Jed Harrison, University of Alberta (Canada),***<br>*High Efficiency Molecular Sieving of Biomolecules in Self Assembled Nanoporous Media* |
| **16:45 - 17:05** | ***Kamal Ahmad, Jamia Millia Islamia (Malaysia)***<br>*Phylogenetic Analysis of Bacterial Diversity of Heavy Metal-affected Soil* | ***Khalil Leon Heileman, McGill University (Canada)***<br>*Microfluidic Device for Dielectric Spectroscopy Measurement of Pancreatic Islets of Langerhans and Secretion Analysis* |
| **17:05 - 17:25** | ***Vincent Bessonneau, University of Waterloo (Canada)***<br>*In Vivo Tissue Sampling using Solid-phase Microextraction for Non-lethal Exposome-wide Association Study of CYP1A Induction in Catostomus Commersonii* | ***Narges Shaabani, University of Alberta (Canada)***<br>*Size based Proteins Separation using Polymer Stabilized Colloidal Self-assembled Nanoparticles Bed on Microfluidics Chip* |
| **17:25 - 17:45** | ***Xavier Ortiz, Ministry of Environment & Climate Change of Ontario (Canada)***<br>*Analysis of Microcystins in the Great Lakes by LC-MS/MS: Results of the Ontario Drinking Water Surveillance Program from the Last 11 years.* | ***Michael Bowser, University of Minnesota (USA)***<br>*High Peak Capacity, Two Dimensional Separations Using Micro Free Flow Electrophoresis* |
| **Adjourn** | **Free Time** | **Suggested activities are listed at the Registration Desk and on the conference website (www.msb2016.org)** |

## *Thursday, April 7, 2016*
## *Morning Session*

| | | |
|---|---|---|
| ***07:00 - 08:30*** | ***Breakfast - Tara Restaurant*** | |
| ***08:00 - 12:00*** | ***Registration, Information- Lower Lobby*** | |
| ***08:00 - 8:40*** | ***Grand Georgian Ballroom:***<br>***Plenary 6 - David Sinton, University of Toronto***<br>*Microfluidic Analysis for Energy Applications* | |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***08:45 - 12:00*** | ***CE/MS & Novel Detection Strategies***<br>***Session Organizers: David Chen/Norman Dovichi***<br>*Session Sponsored by CMP Scientific* | ***Food, Nutrition & Health Session***<br>***Session Organizers: Michel Aliani/Philip Britz-Mckibbin*** |
| ***08:45 - 09:15*** | *Keynote -* ***Norman Dovichi, University of Notre Dame (USA)***<br>*Capillary Zone Electrophoresis for Deep Bottom-up Proteomic Analysis* | *Keynote -* ***Peter Zahradka, St. Boniface Hospital (Canada)***<br>*Application of Bioanalytical Methods to Foods for the Optimization of Health and Nutritional Benefits* |
| ***09:15 - 09:35*** | ***Åsa Emmer, KTH Royal Institute of Technology (Sweden)***<br>*Capillary Electrophoretic Separation and Fractionation Combined with MALDI-MS/MS-MS for Analysis of Reproduction Proteins from Pieridae Butterflies* | ***Mai Yamamoto, McMaster University (Canada)***<br>*Urinary Markers of Anxiety Reduction Following a Probiotic Intervention in Irritable Bowel Syndrome Patients* |
| ***09:35 - 09:55*** | ***Anna Tycova, Czech Academy of Sciences (Czech Republic)***<br>*Novel CE-nanoESI/MS Interface for Quick analysis of Dexrazoxane from Blood Plasma* | ***Rachel Harstad, University of Minnesota (USA)***<br>*Measuring Extracellular Amino Acid Dynamics from 3T3-L1 Adipocytes Using online Microdialysis-Capillary Electrophoresis* |
| ***09:55 - 10:15*** | ***Akiyoshi Hirayama, Keio University (Japan)***<br>*Development of a Novel Sheathless CE-MS Interface for Metabolome Analysis* | ***Andrea Edel, University of Manitoba (Canada)***<br>*Metabolism and Biological Actions of Milled Flaxseed in Humans as a Function of Dose, Participant Age and Cardiovascular Disease Status* |
| ***10:15 - 10:40*** | ***Grand Georgian Ballroom***<br>*Presentation: Protein iCIEF Fractionation for MS with CEInfinite System, Presented by: Tiemin Huang, President & CEO, AES Ltd (Canada), & Gerard Rozing, ROZING.COM Consulting (Germany)* | ***Science Cafe, Presented by Advanced Electrophoresis Solutions Ltd.***<br><br>***COFFEE BREAK*** |
| ***8:30 - 12:00*** | ***AES Presentation Room*** | ***Scarlet Room*** |
| | ***Imperial Ballroom*** | ***Grand Georgian Ballroom*** |
| ***10:40 - 11:10*** | *Keynote -* ***Rob Haselberg, VU Amsterdam (Netherlands)***<br>*On-line Coupling of Capillary Electrophoresis with Surface Plasmon Resonance for the Affinity Assessment of Protein Mixture Components* | *Keynote -* ***David Wishart, University of Alberta (Canada)***<br>*New Resources for Enabling Food and Nutritional Metabolomics* |
| ***11:10 - 11:30*** | ***Bettina Sarg, Medical University Innsbruck (Austria)***<br>*Enhanced Separation and Characterization of Deamidated Peptides with CE-MS* | ***Philip Marriott, Monash University (Australia)***<br>*Multidimensional Separations and Natural Product Metabolomics: Demanding the Best Analytical Gas Chromatography Capability* |
| ***11:30 - 11:50*** | ***Lingyu Wang, University of British Columbia (Canada)***<br>*Capture Efficiency and Separation Performance of Dynamic pH Junction with Two Different On-column Electrolyte Configuration in CE-MS* | ***Rosa Vazquez-Fresno, University of Alberta (Canada)***<br>*The Application of Multi-platform Metabolomics Methods for the Characterization of the Chemical Composition of Fruits and Vegetables* |
| ***11:50 - 12:10*** | ***John Hudson, SCIEX (Canada)***<br>*Increasing Throughput with Multi-Segment-Injection-Capillary Electrospray Ionization-Mass Spectrometry (MSI-CESI-MS).* | ***Philip Britz-McKibbin, McMaster University (Canada)***<br>*Assessment of Treatment Responses to Protein Supplementation during Caloric Restriction: Weight Reduction without Muscle Loss?* |
| | ***Grand Georgian Ballroom*** | |
| ***12:10 - 13:00*** | ***Closing of MSB 2016 & Welcome to MSB 2017*** | |

## Monday, April 4, 2016
## 3 Minute Talk Sessions

| | | |
|---|---|---|
| **13:00 - 13:30** | **Grand Georgian Ballroom** | |
| | **Session Organizer: Philip Britz-McKibbin** | |
| | **Session:** | **Presentation:** |
| | **Biologics** | **Leila Josefsson, KTH Royal Institute of Technology (Sweden)**<br>*Analysis of Polyvinyl Alcohol Microbubbles in Human Blood Plasma* |
| | **Sample Preparation** | **Nicolas Drouin, University of Geneva (Switzerland)**<br>*Dynamic Electromembrane Extraction (d-EME): A New Technical Development* |
| | **Biologics** | **Agnesa Shala-Lawrence, Sanofi Pasteur (Canada)**<br>*Quantitative and Qualitative Analysis of a Vaccine Antigen using SDS Capillary Gel Electrophoresis* |
| | **Sample Preparation** | **Yang Chen, Nanjing University (China)**<br>*Coupling of Phosphate-imprinted Mesoporous Silica Nanoparticles-based Selective Enrichment with MALDI-TOF MS for Highly Efficient Analysis of Protein Phosphorylation* |
| | **Food, Nutrition & Health** | **Cederic Sarazin, Wynsep SAS**<br>*On the Use of Capacity Coupled Contactless Conductivity Detector (C4D) on a New Modular Capillary Electrophoresis System* |
| | **Food, Nutrition & Health** | **Ana Sanches-Silva, National Institute of Health Dr Ricardo Jorge (Portugal)**<br>*Evaluation of the Lipid Oxidation of a Meat Product Packaged with a Biodegradable Active Film* |
| | **Biologics** | **Virginie Houbart, University of Geneva (Switzerland)**<br>*Alpha-synuclein as Biomarker in Parkinson's Disease: Strategies for Detection in CGE-LIF* |

## Tuesday, April 5, 2016
## 3 Minute Talk Sessions

| | | |
|---|---|---|
| **13:00 - 13:30** | **Grand Georgian Ballroom** | |
| | **Session Organizer: Philip Britz-McKibbin** | |
| | **Session:** | **Presentation:** |
| | **Advanced Column Technologies** | **Myriam Taverna, University of Paris (France)**<br>*Novel Approaches of Isotachophoresis for Improvement of Electrokinetic Preconcentration Performance in Microbore Channels* |
| | **Clinical Diagnostics** | **Yingdi Zhu, École Polytechnique Fédérale de Lausanne (Switzerland)**<br>*Sensitive and Fast Identification of Bacteria in Blood Samples by Immunoaffinity Mass Spectrometry: A Quick BSI Diagnosis Tool* |
| | **Pharmaceutical** | **Sven Kochmann, York University (Canada)**<br>*Non-orthogonal Free Flow Electrophoresis* |
| | **Nucleic Acids** | **Vladimira Datinska, Czech Academy of Sciences (Czech Republic)**<br>*Development of FRET-based Sensor for Detection of DNA Mutation* |
| | **Nucleic Acids** | **Feriel Melaine, McGill University (Canada)**<br>*Gold Nanoparticles Surface Plasmon Resonance-enhanced Signal for the Detection of 16s rRNA Sequence of Legionella Pneumophila* |
| | **Pharmaceutical** | **Catherine Perrin, Montpellier University (France)**<br>*Development of an Integrated Bioanalytical Methodology based on Oxidation Reactions for the Quality Control of HRP-conjugated Antibodies* |
| | **Pharmaceutical** | **Stanislav Beloborodov, York University (Canada)**<br>*Kinetic Capillary Electrophoresis (KCE) as a Tool to Study Interaction Between a Virus and an Antibody* |

## *Wednesday, April 6, 2016*
## *3 Minute Talk Sessions*

| | | |
|---|---|---|
| ***13:00 - 13:30*** | ***Grand Georgian Ballroom*** | |
| | ***Session Organizer: Philip Britz-McKibbin*** | |
| | ***Session:*** | ***Presentation:*** |
| | ***Comprehensive-OMICS*** | ***Lukas Najdekr, Palacky University (Czech Republic)***<br>*Influence of Mass Resolving Power in HRMS Metabolomics* |
| | ***Environmental*** | ***Stefanie Maedler, MOECC (Canada)***<br>*Speciated Isotope Dilution Ion Chromatography Tandem Mass Spectrometry for the Quantification of Cr(VI) at Ultratrace Levels* |
| | ***Fundamentals*** | ***Nazmul Alam, University of Waterloo (Canada)***<br>*How Solid-phase Microextraction Works?* |
| | ***Fundamentals*** | ***Kanji Miyabe, Rikkyo University (Japan)***<br>*Moment Analysis Method using CE for Kinetic Study of Intermolecular Interaction* |
| | ***CE-Novel Detection*** | ***Elliott Kerrin, Dalhousie University (Canada)***<br>*Analysis of the Neurotoxin Beta-N-Methylamino-L-Alanine via Capillary Electrophoresis coupled with Tandem Mass Spectrometry* |
| | ***Microfluidics*** | ***Yizhong Zhang, Pfizer Inc. (USA)***<br>*Evaluation of IonKey Micro-Flow LC/MS/MS for In Vivo Drug Discovery* |
| | ***Comprehensive-OMICS*** | ***Michelle Saoi, McMaster University (Canada)***<br>*Characterization of the Muscle Metabolome: Elucidating the Ergogenic Effects of Bicarbonate on Interval Exercise* |