

Conference Program

Tuesday, May 17th

9:00 AM to **Waters Corporation Pre-Conference Workshop**
3:30 PM (NRC Lecture Theatre, Regis & Joan Duffy Research Centre)
"Analytical Technologies for Natural Products Research"

4:00 PM **Registration Opens**
(Schurman Market Square, McDougall Hall)

7:00 PM **Welcome Reception Lecture**
(Room 242 - MacKinnon Auditorium, McDougall Hall)

Sponsored by: NeuroDyn & Waters Corporation

Welcome addresses by:

Paul Shipley (NHPRS president & Associate Professor, The University of British Columbia)

Robert Gilmour (VP Research, University of Prince Edward Island)

Denise LeBlanc (General Manager, Aquatic and Crop Resource Development, NRC Charlottetown)

Invited lecture: CAPT Joseph Hibbeln (Acting Chief, National Institute on Alcohol Abuse and Alcoholism National Institutes of Health)

"Nutrition above the Neck: Essential Fatty Acids in Mental Health"

8:00 PM to **Welcome Reception Wine and Cheese**

9:30 PM (Schurman Market Square, McDougall Hall)

Sponsored by: NeuroDyn & Waters Corporation



Wednesday, May 18th

McDougall Hall

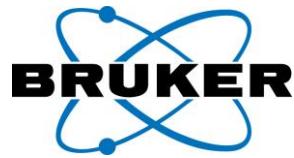
7:00 AM	BOD Meeting (Room 328)
7:30 AM	Breakfast & Registration Opens (Schurman Market Square)
8:15 AM	Conference Opening and Welcome from the NHPRS (Room 242) Welcome address by: Bob Chapman (NHPRS Conference Chair & Program Lead, Aquatic and Crop Resource Development, NRC)
8:30 AM	<u>Session 1: Industry Perspectives on Natural Product R&D</u> (Room 242) Chair: Bob Chapman (NHPRS Conference Chair & Program Lead, Aquatic and Crop Resource Development, NRC)
8:30 AM	Invited lecture: Shelley R. King (CEO, Natural Products Canada) <i>“Natural Products Canada: A National Centre of Excellence for Commercialization and Research”</i>
8:55 AM	Invited lecture: Robert Orr (CEO and Managing Partner of a Cuna del Mar LP) <i>“A Sea of Possibilities: Innovation and Commercialization in the Canadian Context”</i>
9:20 AM	Invited lecture: Scott Woodruff (Chief Product Development Officer, Nature's Way Inc) <i>“Atlantic Canada as an Innovation Hub: The Commercial Case Study of Nature's Way and Ascenta Health”</i>
9:45 AM	Invited lecture: Russ Kerr (Professor and Canada Research Chair, Department of Biomedical Sciences, Atlantic Veterinary College, University of PEI) <i>“Mining a Marine Microbial Library”</i>
10:10 AM	Panel discussion

10:40 AM

Break

(Schurman Market Square)

Sponsored by: Bruker BioSpin



11:00 AM

Session 2: NeuroConX - Natural Approaches to Pain Management

(Room 242)

Chair: Andy Tasker (Professor of Neuropharmacology, Department of Biomedical Sciences, University of Prince Edward Island & member of the Halifax-based Brain Repair Centre and the Canadian Stroke Network)

11:05 AM

Invited lecture: Jana Sawynok (Professor, Department of Pharmacology, Dalhousie Medical School)

"Adenosine and Pain, Circa 2015"

11:35 AM

Invited lecture: Joseph Gabriele (President & Chief Executive Officer, Delivra Inc)

"Delivra Corp Topical Approaches to Pain Management: Radical but Effective!"

11:55 AM

Invited lecture: Alex McLellan & Marc Richard (NeuroQuest)

"Development of a Natural Health product for Neuropathic Pain"

12:15 PM

Invited lecture: Jason J. McDougall (Professor of Pharmacology and Anaesthesia & Chief of the Brain Institute Center of Excellence, Dalhousie Medical School)

"Potential Benefits of Extracts from the Cannabis Plant for the Treatment of Arthritis Pain and Inflammation"

12:35 PM

Question and answer session

12:45 PM

Lunch & Annual General Meeting

(Schurman Market Square)

Partnering Meeting Program (Room 328)

Hosted by PEI BioAlliance



2:25 PM **Session 3: NeuroConX - Natural Approaches to Brain Health & Function**
(Room 242)

Chair: Jackalina M. Van Kampen (Director, Preclinical Research, Neurodyn Inc. & Adjunct Professor, Department of Biomedical Science, University of Prince Edward Island)

2:30 PM **Invited lecture: Giulio Maria Pasinetti** (The Saunders Family Chair, Professor of Neurology & Director of the Botanical Center for Promotion of Cognitive and Psychological Resilience, Icahn School of Medicine at Mount Sinai)

"At the Crossroads between Promotion of Health and Prevention of Age-Related Neurodegeneration with Phenolic Drugs to Avoid the Catastrophic Cliff of Neuronal Failure"

3:10 PM **Invited lecture: Thérèse Di Paolo** (Professor, Faculty of Pharmacy, Laval University & Senior Investigator in the Centre Hospitalier Universitaire de Québec)

"Lessons Learned from Natural Products to Develop Alternative Therapeutic Agents for Parkinson's Disease"

3:30 PM **Invited lecture: Charles Ramassamy** (Canada Industry Research Chair, INRS-Institut Armand-Frappier, Laval University)

"Investigations of the Mechanisms of Action of Flavonoids in the Brain: Relevance to Neurodegenerative Diseases"

3:50 PM **Invited lecture: Steffany Bennett** (Professor and Research Chair in Neurolipidomics, Faculty of Medicine, University of Ottawa)

"Chronic Hypoxia Accelerates Aberrant Glycerophosphocholine Membrane Metabolism Linked to Learning and Memory Impairment in APPSwe/PS1dE9 Mice"

4:10 PM **Break**
(Schurman Market Square)

Sponsored by: Institute of Nutraceuticals and Functional Foods



4:35 PM **Session 4: Filling the Gap Natural Product R&D – Examples from Academia, Government and Industry**
(Room 242)

Chair: Rob O'Brien (Senior Executive for Scientific Affairs, ISURA)

4:40 PM **Invited lecture: Marc Surrette** (Professor, Department of Chemistry and Biochemistry, Université de Moncton & New Brunswick Innovation Research Chair in Bioscience and Canada Research Chair in Cellular Lipid Metabolism)
"The Development of Ahiflower Oil, a New Dietary Source of the Omega-3 PUFA Stearidonic Acid"

5:10 PM **Yanwen Wang** (Natural Health Products Program, Aquatic and Crop Resource Development Portfolio, National Research Council Canada)
"Shrimp Protein Improves Oral Glucose Tolerance in High-Fat Diet-Induced Obese Mice"

5:30 PM **Rob O'Brien** (Senior Executive for Scientific Affairs, ISURA)
"The Development of "User Authenticated Reference Materials" (uARM) For Botanicals Used as Natural Health Products"

5:50 PM **Fabrice Berrué** (Aquatic and Crop Resource Development, National Research Council of Canada)
"Development of a Chemical Barcoding Methodology to Identify and Support the Quality and Safety of Functional Ingredients"

6:30 PM & **Shuttle Bus to PEI Pub Night**
7:00 PM (UPEI's University Street Entrance)

7:00 PM to **PEI Pub Night**
10:00 PM (Prince Edward Island Brewing Company)

Featuring music by: Boys in the Kitchen

Return shuttle buses will be provided

7:00 PM to **NeuroConX Public Lecture**

8:30 PM

Keynote speaker: Steffany Bennett (Professor and Research Chair in Neurolipidomics, Faculty of Medicine, University of Ottawa)

"The Fatty Brain – Do we think what we eat? Brain lipids, cognition, and neurodegenerative disease"

Off campus location: Florence Simmons Performance Hall, Holland College Prince of Wales Campus, #141 Weymouth Street, Charlottetown. Doors open at 6:30 PM.

Thursday, May 19th

McDougall Hall

7:30 AM **Breakfast & Registration Opens**
(Schurman Market Square)

8:30 AM **Session 5: Regulatory Affairs**
(Room 242)

Chair: Krista Coventry (University of Guelph)

8:35 AM **Krista Coventry** (University of Guelph)

"Regulatory Modernization in the Canadian Natural Health Product & Food Sectors: Reshaping an Established Regulatory Landscape to Promote Innovation"

9:00 AM **Michael Smith** (National Center for Natural Products Research, University of Mississippi & National Centre for Complementary Medicine, Western Sydney University & Michael J Smith and Associates)

"Global Regulation of Natural Health Products: Where does Research and Product Innovation Really Fit?"

9:25 AM **Tania John** (Nutrasource Diagnostics Inc)

"NHPs and Regulatory Affairs: Product Development and Regulatory Strategies Designed for Canadian Market Access"

9:50 AM **Nana Bafi-Yeboa** (Natural and Non-prescription Health Products Directorate, Health Canada)

"The Regulatory Framework for Natural Health Products in Canada"

10:15 AM **Panel discussion**

10:30 AM **Break**
(Schurman Market Square)

10:50 AM **Session 6: Student Session**
(Room 242)



Sponsored by: University of Prince Edward Island

Co-Chair: John Thor Arnason (Professor, Department of Biology, University of Ottawa)

Co-Chair: Ammar Saleem (Laboratory for the Analysis of Natural and Synthetic Environmental Toxins, Centre for Advanced Research in Environmental Genomics University of Ottawa)

10:55 AM **Highlight student lecture: Elizabeth Mudge** (Natural Health and Food Products Research Group, British Columbia Institute of Technology & The University of British Columbia)

"Use of Chemical Profiling with Chemometric Analysis for Determining Adulteration in Panax Species"

11:10 AM **Highlight student lecture: Krithika Muthukumaran** (Department of Chemistry and Biochemistry, University of Windsor)

"Amelioration of Neurodegenerative Disease Related Symptoms and Pathology by Ubisol - Q10"

11:25 AM **Highlight student lecture: Stephanie Fowler** (Neural Regeneration Laboratory, University of Ottawa, Ottawa Institute of Systems Biology, Department of Biochemistry, Microbiology, and Immunology, University of Ottawa)

"Novel Genistein Derivatives Encourage Myelinogenic Repair by Promoting Neural Progenitor Cell Specification to the Oligodendrocyte Lineage"

11:40 AM **Three-Minute Thesis (3MT) Competition**

12:05 PM **Lunch & Poster Session**
(Schurman Market Square)

Co-Chair: Paul A. Spagnuolo (Assistant Professor, School of Pharmacy, University of Waterloo)

Co-Chair: Brendan Walshe-Roussel (Department of Physiology and Pharmacology, Schulich School of Medicine and Dentistry, Western University)

Partnering Meeting Program (Room 328)
Hosted by PEI BioAlliance



3:05 PM **Neil Towers Award Presentation and Lecture**
(Room 242)

4:05 PM **Session 7: Natural Products and Cancer**
(Room 242)

Sponsored by: Dr. Rogers Prize

Chair: Paul A. Spagnuolo (Assistant Professor, School of Pharmacy, University of Waterloo)



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4:10 PM **Invited lecture: Siyaram Pandey** (Professor, Department of Chemistry and Biochemistry, University of Windsor)

“Natural Extracts as Therapeutic Alternatives for Cancer: Scientific and Clinical Validation for Bringing NHPs to Main Stream Therapy”

4:40 PM **Paul A. Spagnuolo** (Assistant Professor, School of Pharmacy, University of Waterloo)

“Diosmetin: An Anti-Leukemic Flavonoid Targeting the Estrogen Receptor β”

5:00 PM **Roy Golsteyn** (Cancer Cell Laboratory, Department of Biological Sciences, University of Lethbridge)

“Investigation of Prairie Plant Species by Phenotypic Assays for Secondary Metabolites that have Effects upon Human Cellular Pathways”

5:20 PM **Pamela Ovadje** (Department of Chemistry & Biochemistry, University of Windsor)
"Investigating the Effect of Polychemical complex NHPs on Multiple Signalling Pathways of Programmed Cell Death"

6:00 PM & **Shuttle Bus to Gala Dinner**
6:30 PM (UPEI's University Street Entrance)

7:00 PM to **Gala Dinner** (Peakes Quay)
10:00 PM

Sponsored by: PEI BioAlliance



Master of Ceremonies: Paul Shipley (NHPRS president & Associate Professor, The University of British Columbia)

Welcome Address: Rory Francis (Executive Director, PEI BioAlliance)

Invited lecture: Joseph M. Betz (Director, Analytical Methods and Reference Materials Program Office of Dietary Supplements National Institutes of Health)

"Nature Exposed to Our Method of Questioning: Reliability of Natural Product Measurements"

Student Travel Awards and Student Presentation Awards

Sponsored by: University of Ottawa (travel awards), **University of Prince Edward Island & Waters Corporation** (presentation awards)



Featuring music by: Boys in the Kitchen

Return shuttle buses will be provided

Friday, May 20th

McDougall Hall

7:30 AM **Breakfast & Registration Opens**
(Schurman Market Square)

8:30 AM **Session 8: Phytochemical Analysis**
(Room 242)

Sponsored by: Canadian PhytoPharmaceuticals Corporation



Chair: Yuan-Chun Ma (President and CEO, Canadian PhytoPharmaceuticals Corporation)

8:35 AM **Invited Speaker: Paula Brown** (Canada Research Chair in Phytoanalytics and Director of the BC Institute of Technology's Natural Health and Food Products Research Group)

“Authentication of Botanical Products: Chemical Profiling & Chemometrics”

9:05 AM **James Traub** (Waters Corporation)

“Mass Detection for the Masses: How Compact Mass Detectors are Improving the Analysis of Herbal and Dietary Supplements?”

9:25 AM **Yuan-Chun Ma** (President and CEO, Canadian PhytoPharmaceuticals Corporation)

“Challenges and Solutions for the Quality Control of Botanical Medicine”

9:45 AM **Robert Coccia** (Bruker BioSpin)

“Potency Analysis in Medicinal Marijuana Using Fourier Transform Near-Infrared (FT-NIR) Spectroscopy”

10:05 AM **Break**
(Schurman Market Square)

Sponsored by: Waters Corporation

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10:30 AM **Session 8: Natural Product Pharmacology and Pharmacognosy**
(Room 242)

Sponsored by: Dr. Rogers Prize

Chair: Cory Harris (Assistant Professor,
Department of Biology, University of Ottawa)



10:35 AM **Invited lecture: Chun-Su Yuan** (Cyrus Tang Professor in the Department of Anesthesia & Critical Care at the University of Chicago)
"The Role of Enteric Microbiota and Metabolomic Biomarker in Natural Health Product Research: Using Ginseng as an Example"

11:05 AM **Cory Harris** (Assistant Professor, Department of Biology, University of Ottawa)
"Not Just Pot: The Endocannabinoid System as an Emerging Target of Medicinal Plant Bioactivity"

11:25 AM **Jonathan Ferrier** (Department of Obstetrics and Gynecology, The Ottawa Hospital Research Institute (OHRI), The Ottawa Hospital & Bruker BioSpin & Department of Biology, University of Ottawa & Emcarta)
"NMR Metabolomic Fingerprinting Subclasses of Placenta Mediated Diseases and Natural Product Therapies for Preeclampsia"

11:45 AM **H.P. Vasantha Rupasinghe** (Faculty of Agriculture, Dalhousie University)
"Plant Flavonoids: Bioefficacy in Chronic Disease Models"

12:05 PM **Closing Remarks & Lunch**

12:05 PM **Closing remarks** (Room 242)
Bob Chapman (NHPRS Conference Chair & Program Lead, Aquatic and Crop Resource Development, NRC)

12:15 PM Lunch (Schurman Market Square)