



46th Annual Symposium / Le 46^e symposium annuel

December 11th – 12th, 2014
Ottawa Convention Centre
55 Colonel By Drive
Ottawa, Ontario

**REACTING IN TODAY'S ENVIRONMENT AND
PREDICTING TOMORROW'S CHALLENGES**

**REACT: RÉAGIR DANS L'ENVIRONNEMENT
D'AUJOURD'HUI ET PRÉDIRE LES DÉFIS DE DEMAIN**

Organised by / Organisé par
SOCIETY OF TOXICOLOGY OF CANADA
LA SOCIÉTÉ DE TOXICOLOGIE DU CANADA

Programme Committee / Comité du programme
Andrew Winkley, Vertex Pharmaceuticals, Chair
Christopher Nicol, Queen's University, Member

Wednesday, Dec 10th PM

2:00 – 5:00 STC Board Meeting

7:00 Student Mentoring Session – Room 1526, The Westin Ottawa

Thursday, Dec 11th AM

7:30 Registration / Continental Breakfast

8:30 **David Josephy**, University of Guelph, Guelph, ON; President, STC
Opening Remarks

Session I: The Issues and Impacts of Environmental Toxicology on Aboriginal People

Chair: Andrew Winkley, Vertex Pharmaceuticals, USA

8:40 **Caleb Behn**, Coast Salish Territory
Fractured Land: A First Nations View on Hydraulic Fracturing and the Potential Role of Toxicologists to Support Reconciliation

9:10 **Pierre Ayotte**, Université Laval, Québec, QC
Toxicology Issues Facing the Inuit

9:40 **Rob Letcher**, Environment Canada, Ottawa, ON
From Birds to Bears: Emerging Contaminant Complexity and Exposure For Arctic and Great Lakes Wildlife

10:15 **Coffee Break and Poster Session** (*Judging*)

11:00 **PLENARY LECTURE:**
Russel Shearer, Aboriginal Affairs and Northern Development Canada
The Northern Contaminants Programs: Over 20 years of Toxicology in Action to Protect Aboriginal Peoples

12:00 **Lunch and Poster Viewing** (*No Judging*)

Thursday, Dec 11th PM

1:00 *Short talk: Maryse Lemaire*, McGill University, Montreal, QC
Arsenic Exposure Increases Monocyte Adhesion to the Vascular Endothelium,
A Pro-atherogenic Mechanism.

1:10 *Short talk: Jonathan G. Boucher*, Health Canada, Ottawa, ON
Bisphenol A β -D-Glucuronide Induces Adipogenesis in Murine
and Human Preadipocytes

Session II: Challenges and Opportunities in in silico and in vitro Predictive Toxicology

Chair: Christopher Nicol, Queen's University, Kingston, ON

1:30 **Donna Mendrick**, National Center for Toxicological Research, Jefferson,
AR, USA
In silico and in vitro Predictive Toxicology: Challenges and Opportunities

2:00 **Anna Lowit**, EPA, Washington, DC, USA
Alternative Approaches for the Acute Toxicity Testing

2:30 **Coffee Break and Poster Viewing** (*Judging if required*)

3:00 **Matt Peters**, AstraZeneca, Waltham, MA, USA
Predictive in vitro Cardiovascular Techniques

3:30 **Alex Tropsha**, University of North Carolina, Chapel Hill, NC, USA
Hybrid Chemical-Biological Approaches to Toxicity Prediction

4:00 **Annual Business Meeting**

6:00 **President's Reception and STC Awards**
Heart and Crown, 67 Clarence Street (Byward Market)
ToxTrivia – Challenge your knowledge of toxicology, risk assessment, and
the posters at STC-2014!

Friday, Dec 12th AM

8:00 Continental Breakfast

Session III: Michel Charbonneau Memorial Symposium

Chair: Sami Haddad, Université de Montréal

- 9:00** **Daniel Cyr**, INRS-Institut Armand-Frappier, Université du Québec and **Sami Haddad**, Université de Montréal
Introduction
- 9:10** **Marc-Andre Verner**, Université de Montréal, Montréal, QC
Pharmacokinetic Modeling in Environmental Epidemiology
- 9:40** **Coffee Break and Poster Viewing**
- 10:10** **Isabelle Plante**, INRS-Institut Armand-Frappier, Université du Québec, QC
The Role of Connexins in Hexachlorobenzene-induced Liver and Breast Cancer
- 10:40** **Thomas Massey**, Queen's University, Kingston, ON
Perturbation of DNA Repair in Pulmonary Chemical Carcinogenesis
- 11:10** **Gabriel Plaa Award Lecture:**
Daniel Cyr, INRS-Institut Armand-Frappier, Université du Québec, QC
Understanding the Effect of Environmental Contaminants on Sperm Maturation
- 11:40** *Short talk:* **Arno G. Siraki**, University of Alberta, Edmonton, AB
Unexpected Cytoprotection of Isoniazid against H₂O₂ Injury
- 11:50** *Short talk:* **Aaron A. Witham**, University of Guelph, Guelph, ON
Chlorination of a Phenolic C8-Guanine Adduct Increases Conformational Rigidity and Targeted Mutagenicity
- 12:00** **Lunch**

Friday, Dec 12th PM

**Session IV: The Training Needs of Toxicologists in the 21st Century;
The NSERC CREATE Training Program - Research in Environmental,
Analytical Chemistry and Toxicology (REACT)**

Chair: Laurie Chan, University of Ottawa, Ottawa, ON

- 1:00** **Laurie Chan**, University of Ottawa, Ottawa, ON
The Challenges of Training the Next Generation of Toxicologists
- 1:20** **Kurunthachalam Kannan**, Wadsworth Center, Albany, NY, USA
Human Exposure to Emerging Chemicals
- 1:50** **Jules Blais**, University of Ottawa, Ottawa, ON
Environmental Contamination from Oil Sands Development
- 2:20** **Coffee Break**
- 2:40** **Chris Le**, University of Alberta, Edmonton, AB
New Trends of Bioanalytical Techniques for Biomarkers
- 3:10** **Carole Yauk**, Health Canada, Ottawa, ON
Application of New “Omics” Methods in Regulatory Toxicology
- 3:40** **Richard Becker**, American Chemistry Council, Washington, DC, USA
Improving Risk Assessment Policies and Practices to Meet the Challenges
Posed by 21st Century Science
- 4:10** **David Josephy**, University of Guelph, Guelph, ON; President, STC
Concluding Remarks