



52nd Symposium / 52e Symposium
November 30th – December 2nd, 2020
Virtual Learning Event / Événement d'apprentissage virtuel

**CONNECTING THE DOTS FROM BENCHTOP TO
HUMAN AND ENVIRONMENTAL RISK**

**FAIRE LE LIEN ENTRE LA RECHERCHE ET LES
RISQUES POUR L'HOMME ET
L'ENVIRONNEMENT**

Organized by / Organisé par:

SOCIETY OF TOXICOLOGY OF CANADA
LA SOCIÉTÉ DE TOXICOLOGIE DU CANADA

Programme Committee / Comité du Programme

Joanne Wan, Intertek, Chair and Industry Member
Isabelle Plante, INRS, Academic Member
Anne Marie Gannon, Health Canada, Government Member

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President welcome

On behalf of the STC board of directors, it is my pleasure to welcome you to the 52nd Annual STC Symposium. Although the pandemic has prevented us from keeping the traditional, in-person gathering that we had originally planned in Montreal, we have adapted for what we hope is a very satisfying virtual alternative. I would like to thank the program committee who did a lot of work to adapt to the digital mode, different time zones, and to not reach the toxic dose of screen time! Respecting the traditional 2-day calendar, we have streamlined the sessions and organized satellite meetings so that our Virtual Symposium can nonetheless present all the main events you expect.

We are very grateful for the support of our sponsors without whom we would not be here. We also thank the many of you who have chosen to present their work at our meeting. Despite the closing of laboratories, 39 excellent abstracts are presented. ePoster presentations is featured through a secure website specially created for the symposium allowing registrants to see the presentations online at their convenience, 24 hours a day, for more than a week.

Although we will miss seeing everyone in person, we hope that you will safely enjoy this virtual way to participate, connect and share your research.

Géraldine Delbès
President of the STC

Virtual meeting, technical info

All materials related to the STC virtual learning event, including access to ePoster and links to the live and recorded webinars, will be available on the STC 2020 symposium website. Registrants will receive information to login this secured website, by email, on November 25th. <https://symposium2020.stcweb.ca/>

Access to ePosters will be open from November 25th until December 4th. Q&A will be available on the webpage of each poster. No notice of questions will be automatically sent to presenters; therefore, presenters are encouraged to login at least once daily to answer questions that may have been posted. That way, interactions can feel like in-person poster sessions.

For the sessions, we will be using the Zoom Webinar platform. We recommend that you download the application ahead of time (<https://zoom.us/download>). The unique link to access each webinar will be available on our website and will also be sent by email on the morning of the event.

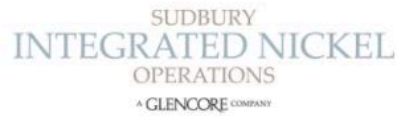
If you have any questions or if you have not receive any information by November 26th please, contact us at info@stcweb.ca

We look forward to seeing everyone online very soon!

Sponsors

The Society of Toxicology of Canada is grateful to the following organizations for their valued contributions and financial support.

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Symposium programme

Virtual E-Poster presentations will be available from November 25th to December 4th.

November 30th [1:00 to 3:00 pm EST]

1:00 Annual business meeting (members only)

December 1st [1:00 to 5:00 pm EST]

1:00 **Welcome & Opening Remarks**
Géraldine Delbès, President STC

1:05 **SESSION I: Sensitization: Skin and Beyond**
Chair: Joanne Wan, Intertek Health Sciences

1:10-1:40 **Andy Forreryd, SenzaGen, Lund, Sweden**
“The GARD Platform for Skin and Respiratory Sensitization Testing: Practical Applications and Case Studies”

1:40-2:10 **Neera Tewari-Singh, Michigan State University, East Lansing, Michigan, USA**
“Ocular and Dermal Irritation and Skin Sensitization: Evaluation and Models”

2:10-2:40 **Cameron Bowes, Health Canada, Ottawa, Ontario**
Topic: Regulatory use of *in vitro* sensitization assays. Title: to be determined.

2:40-2:55 **Break**

2:55-4:10 **Session II: Invited Trainee Presentations (Students/Postdoctoral Fellows)**
Platform Presentations
Chair: Anne Marie Gannon, Health Canada, Ottawa, Ontario

2:55-3:10 **Kiran Makhani, McGill University, Montreal, Quebec**
“Arsenic Dampens Antigen Presentation Specifically in M2 Alternative Macrophages”

3:10-3:25 **Andrey Boyadzhiev, University of Ottawa, Ottawa, Ontario**
“The Story of 5 Metal Oxide Nanoparticles: Elucidating Markers of Toxicity in Lung Epithelial Cells Using Global Transcriptional Analysis”

- 3:25-3:40** **Ashley Cheng**, University of Toronto, Toronto, Ontario
 “DNA Double-strand Breaks in Fetal Brains from Oxoguanine Glycosylase 1 (OGG1) Knockout Mice Exposed *In Utero* to Physiological or Ethanol-enhanced Levels of Reactive Oxygen Species (ROS)”
- 3:40-3:55** **Trent H. Holmes**, Queen’s University, Kingston, Ontario
 “Alterations in Fetal DNA Repair Genes Following Maternal Benzene Exposure in CD-1 Mice”
- 3:55-4:10** **Abishankari Rajkumar**, McGill University, Montreal, Quebec
 “Elucidation of Cytotoxic Effects of Bisphenol A and Structural Analogs on Germ and Steroidogenic Cells Using Single Cell High-Content Imaging”
- 4:10-4:15** **Presentation of the STC / Intertek Graduate Student Research Awards**
 Géraldine Delbès
- 4:15-5:00** **Gabriel L. Plaa Award of Distinction Presentation and Introduction**
 Géraldine Delbès, Jayadev Raju, Genevieve Bondy
- Gabriel L. Plaa Award of Distinction Lecture**
Rekha Mehta, Health Canada, Ottawa, ON
 “From Xenobiotic Metabolism and Carcinogenesis to Regulatory Food Toxicology Research at Health Canada.”

December 2nd [1:00 to 5:00 pm EST]

- 1:00 – 1:45** **V.E. Henderson Award Presentation and Introduction**
 Géraldine Delbès, Marc André Verner
- V.E. Henderson Award Lecture**
Isabelle Plante, INRS-Institut Armand-Frappier, Laval, Quebec
 “Intercellular Junctions: A Target for Endocrine Disruptors”
- 1:45-2:40** **KEYNOTE PRESENTATION:**
Chair: Angela Hofstra, STC Past-President
- Nicole Kleinstreuer**, NICEATM, Durham, North Carolina, USA
 “The CompTox Continuum: Communication, Collaboration, and Confidence”
- 2:40-2:55** **Break**

- 2:55** **Session II: Metals** (sponsored by Glencore Canada)
Chair: Ron Brecher
- 3:00-3:30** **Elaine Leslie**, University of Alberta, Edmonton, Alberta
 “The Influence of Selenium on Arsenic Handling by Human Hepatocytes and Erythrocytes”
- 3:30-4:00** **Koren Mann**, Lady Davis Institute for Medical Research, Montreal, QC
 “Tungsten-Induced Changes to B lymphocytes”
- 4:00-4:30** **Mike Taylor**, Durham, North Carolina, United States
 “Using a Biokinetic Model for Nickel to Establish Health-Based Urinary Nickel Guidelines for Workers”
- 4:30-5:00** **Guy Gilron**, Borealis Environmental Consulting Inc., North Vancouver, BC, Canada
 “Selenium Risk Assessment: The Saga of a Complex Metalloid with Significant Toxicological and Regulatory Challenges”
- 5:00- 5:05** **Closing Remarks**
Géraldine Delbès, President STC

**December 4th [12:00 to 1:00 pm EST]
 Satellite Session 1**

- 12:00-1:00** **Michael Accardi**, Charles River Laboratories, Laval, QC, Canada
 Topic: The Utility of *In Vitro* Electrophysiology in Early Stage Safety Pharmacology and Drug Discovery

**January 13th, 2021 [Time To Be Determined]
 Satellite Session 2:**

- 1:00 to 3:30** **Cannabis Science & Regulation: Perspectives from Health Canada**
- Morgan Ring**, Strategic Policy Directorate, Controlled Substances and Cannabis Branch
 “Overview of the Legislative and Regulatory Framework for Cannabis”

Hanan Abramovici, Office of Cannabis Science and Surveillance, Controlled Substances and Cannabis Branch

“Cannabis Science 101”

Stephanie Jack, Office of Cannabis Science and Surveillance, Controlled Substances and Cannabis Branch

“Vigilance of Cannabis Products in Canada”

Scott Jordan, Office of Cannabis Science and Surveillance, Controlled Substances and Cannabis Branch

“Risk Assessment of Cannabis Products”

Maria Sultan-Khan and Julie Loiselle, Policy Planning and International Affairs Directorate, Health Products and Food Branch

“Health Products Containing Cannabis”

Question and Answer Period

Speaker Bios

**Andy Forreryd, SenzaGen,
Lund, Sweden**

Dr. Forreryd currently serves as a scientist and scientific liaison manager at SenzaGen where he works on the development of mechanistic and human-relevant predictive in vitro assays for various immunotoxicological endpoints. Dr. Forreryd holds a MSc. in molecular biotechnology from the Faculty of Engineering LTH at Lund University and a PhD. in Immunotechnology from Lund University. He has many years of experience working with in vitro assay development using transcriptomic technologies, machine learning and statistical tools for multivariate data analysis. He is co-developer of the GARD platform for the assessment of chemical sensitizers and an inventor of two patents related to the technology.



Dr. Forreyd will be presenting in our first session, Sensitization: Skin and Beyond.

**Neera Tewari-Singh, Michigan State University,
East Lansing, Michigan, USA**

Dr. Twari-Singh is an associate professor in the department of pharmacology and toxicology at Michigan State University. The major long-term goal of Dr. Tewari-Singh's research is to pursue both basic and translational studies to develop approved and more effective targeted countermeasures/ therapies against dermal and ocular injuries from chemical exposures. The chemical agents of interest include vesicating and nettle agents, industrial pollutants and pesticides that can cause harmful effects and long-term ailments to the human population. Dr. Twari-Singh's lab integrates clinical responses, molecular toxicology, biochemistry, immunology, imaging, and cutting-edge 'omics' tools to elucidate toxic mechanisms and to develop effective and targeted medical interventions to overcome the challenges of chemical emergencies in both civilian and military populations.



Dr. Tewari-Singh will be presenting in our first session, Sensitization: Skin and Beyond.

Cameron Bowes, Health Canada, Ottawa, Ontario

Cameron Bowes is a senior regulatory toxicologist and manager with Health Canada's Pest Management Regulatory Agency (PMRA) for the past 28 years. He received a B.Sc. in Life Sciences from Queens University, and a M.Sc. in Toxicology from the University of Guelph. His regulatory work includes characterization of the toxicological hazards and risks associated with pesticide exposure in humans. In addition, he has been involved with the updating of internationally accepted Test Guidelines for chemical safety, including the examination of New Approach Methodologies for potential regulatory use within the context of PMRA's approach to non-animal testing. Cameron also continues to be involved in a number of national and international projects related to immunotoxicity, the most recent of which is the OECD New Approach Methodology project for the development of a Defined Approach for Skin Sensitisation.



Dr. Bowes will be presenting in our first session, Sensitization: Skin and Beyond.

Rekha Mehta, Health Canada, Ottawa, ON

Dr. Mehta holds both Bachelor's and Ph.D. degrees in biochemistry from the University of London (UK). Moving to Canada, she joined the Ontario Cancer Institute at the University of Toronto (1981-84) and subsequently joined Health Canada as a Research Scientist in the Food Directorate. In 1992, Dr. Mehta took research administrative responsibilities as a Section Head in Health Canada, and successively became the Chief/Research Manager of the Regulatory Toxicology Research Division in 2000. Dr. Mehta's contribution to toxicology is marked by the development and application of biomarkers for the early detection of carcinogenic and genotoxic effects of natural/synthetic food additives, chemical contaminants and genetically modified (GM) or novel foods, as well as the modulation of such adverse effects by nutrients using both rodent and non-human primate models. Dr. Mehta serves as an Editorial Board Member of the journal Cancer Letters. She has served on international scientific expert committees, including the International Life Sciences Institute (ILSI) NanoRelease Food Additive Working Group and the OECD Test Guidelines Task Group. She is a Regular Member of the STC, the American Association for Cancer Research, and the Society of Toxicology (USA). Dr. Mehta has retired from her tenure in Health Canada and continues to engage actively as an Emeritus in toxicology and chemical carcinogenesis and with the STC.



Dr. Mehta is the recipient of the STC's 2020 Gabriel L. Plaa Award of Distinction.

**Isabelle Plante, INRS-Centre Armand-Frappier santé Biotechnologie,
Laval, Quebec**

Dr. Plante is an associate professor at the INRS- Centre Armand Frappier Santé et Biotechnologie and co-director of the Intersectorial Centre for Endocrine Disruptors Analysis (CIAPE-ICEDA). Having obtained her M.Sc. and Ph.D. in Biology at the INRS- Centre Armand Frappier Santé et Biotechnologie, under the co-supervision of Drs. Michel Charbonneau and Daniel Cyr, Dr. Plante later joined the Laird laboratory at Western University as a postdoctoral fellow. Her current research, funded by NSERC, CIHR, FRQS, FCI, SRC and the Quebec Breast Cancer Foundation, aims to determine the role of cell-cell interactions during breast development, and how their dysregulation, by endocrine disruptors or other mechanisms, can affect breast organogenesis and promote cancer. Dr. Plante is committed to translating her findings to lay audiences and was featured in the documentary “Toxic Beauty” on chemicals found in cosmetics. Dr. Plante has also been a long-time advocate of the STC, having been a student member from 2000 and a regular member in 2012, and has helped organize many of the annual symposia. She is currently a member of the STC programme committee and will be its chair for the 2021 symposium.



Dr. Plante is the recipient of the STC’s 2020 V.E. Henderson Award

**Nicole Kleinstreuer, NICEATM,
Durham, North Carolina, USA**

Dr. Kleinstreuer is the acting director of the NTP Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM), leading domestic and international efforts to develop novel testing and analysis strategies that provide more rapid, mechanistic, and human-relevant predictions of potential environmental chemical hazards. Kleinstreuer’s research focuses on mathematical and computational modeling of biological systems and their susceptibility to perturbations that result in adverse health outcomes. She has a secondary appointment in the NIEHS Division of Intramural Research Biostatistics and Computational Biology Branch, and adjunct faculty positions in the Yale University School of Public Health and the Eshelman School of Pharmacy at UNC Chapel Hill. She is the recipient of numerous prestigious awards including the 2019 Society of Toxicology Achievement Award.



Dr. Kleinstreuer is the keynote speaker at the STC 2020 Virtual Symposium.

Elaine Leslie, University of Alberta, Edmonton, Alberta

Dr. Leslie obtained her PhD in Pharmacology and Toxicology from Queen's University and completed her postdoctoral training at the National Institutes of Environmental Health Sciences and at the University of North Carolina. Dr. Leslie is currently an Associate Professor in the Departments of Physiology and Laboratory Medicine and Pathology and a member of the Membrane Protein Disease Research Group at the University of Alberta. Dr. Leslie's research interests are in the involvement of transporter proteins and conjugating enzymes in detoxification. The Leslie laboratory has made significant contributions to understanding how ATP-binding cassette (ABC) transporter proteins are involved in protecting tissues from xenobiotic induced injury. The major focus of Dr. Leslie's research is the biotransformation and transport of the environmental human carcinogen arsenic.



Dr. Leslie will be presenting in our second session on metals

Koren Mann, Lady Davis Institute for Medical Research, Montreal, QC

Dr. Mann is the head of the Molecular and Regenerative Medicine Axis, an Associate Professor of Oncology at McGill University, and a Senior Investigator at the Lady Davis Institute at the Jewish General Hospital. Dr. Mann received her Ph.D. in pathology and immunology in 1999 from Boston University, where she studied how the developing immune system is affected by exposure to polycyclic aromatic hydrocarbons. She moved to Montreal to complete her post-doctoral training at McGill, where she researched the use of arsenic as a potential chemotherapy in cancer treatment. Currently, Dr. Mann's laboratory investigates the environmental health effects of metals, including arsenic and tungsten. In recent years, she has participated in the Lymphoma Translational Research Group and has projects associated with understanding drug resistance in diffuse large B cell lymphoma.



Dr. Mann will be presenting in our second session on metals

Mike Taylor, Durham, North Carolina, United States

Michael (Mike) Taylor is a human health toxicologist at NiPERA, Inc., with experience in metals' toxicology and risk assessment. NiPERA is a not-for-profit research association and a division of the Nickel Institute. Mike received his B.A. in Biology in 1996 and Ph.D. in Pharmacology and Toxicology in 2001, both from West Virginia University. He then completed a postdoctoral fellowship at the U.S. National Institute for Occupational Safety and Health (NIOSH) researching the health effects of metal-containing dusts and fumes. At NiPERA, Mike oversees research related to the human health effects associated with exposures to nickel and its compounds. Mike is a member of the Society of Toxicology and has been a Diplomat of The American Board of Toxicology since 2009 and has co-authored multiple peer-reviewed publications on the health effects and risk assessment of metals.



Dr. Taylor will be presenting in our second session on metals

Guy Gilron, Borealis Environmental Consulting Inc., North Vancouver, BC, Canada

Guy holds an MSc. and an Honours BSc. from the University of Guelph, and is accredited as a Registered Professional Biologist (RPBio) in the province of British Columbia. Guy joined the mining industry after a 19-year career in environmental consulting. Prior to his work as Principal of Borealis Environmental, he was recently VP Environment for Cardero Coal Ltd., and Director of Environmental Science for Teck Resources. Mr. Gilron has 25 years' experience in ecotoxicology and ecological and human health risk assessment, relating specifically to anthropogenic effects on aquatic and terrestrial ecosystems. He has expertise in the development, evaluation and application of water quality guidelines and criteria in numerous jurisdictions in North America and beyond. In addition to contributing to various research initiatives and several publications related to selenium risk assessment, Guy has played a key role in a number of multi-stakeholder working groups related to selenium assessment, management, and treatment.



Dr. Gilron will be presenting in our second session on metals

**Michael Accardi, Charles River Laboratories,
Laval, QC, Canada**

Dr. Accardi is an Associate Director in Safety Pharmacology at the Charles River Laval Site. Dr. Accardi graduated with a PhD from the Department of Pharmacology and Therapeutics at McGill University in 2015 with a specialization in central nervous system function and disorder, specifically the metabolic regulation of inhibitory and excitatory neurotransmission. Following his PhD, Michael joined Citoxlab North America (now Charles River Laval) where he developed and validated several in vitro electrophysiological services such as the hERG cardiac in vitro assay and hippocampal seizure liability assay in several preclinical animal species (i.e. rat, dog, mini-pig and non-human primate). Dr. Accardi remains active in the continued development of new in vitro services for both cardiac and central nervous system assays, as well as within the preclinical Safety Pharmacology arena where he has been a member of the Safety Pharmacology Society since 2015 and a Diplomate in Safety Pharmacology since 2018. Michael also remains very active in basic research with 22 peer-review publications in high ranking neuroscience and science journals such as Journal of Neuroscience and Nature Communications.



Dr. Accardi will be presenting at the first satellite session of the STC 2020 Virtual Symposium.

Poster abstract list

A case study evaluating the use of in vitro data on perfluorooctanoic acid (PFOA) hepatotoxicity to derive acceptable exposure levels

Authors : Antoine Bocéno, Sherri Bloch, Nadia Tahiri, Marc-André Verner

A transcriptional comparison of liver samples taken from male F344 rats exposed to 3-methylfuran, or its parental compound furan

Authors : Carter L.E., Nunnikhoven A., Gill S., Curran I.H.

Alterations in fetal DNA repair genes following maternal benzene exposure in CD-1 mice

Authors : Trent H. Holmes and Louise M. Winn

Are pregnant women living in areas of hydraulic fracturing activity in British Columbia more exposed to trace elements than reference populations?

Authors : Lucie Claustre, Michèle Bouchard, Lilit Gasparyan, Pauline Vasseur, Denis Dieme, Élyse Caron-Beaudoin and Marc-André Verner

Arsenic dampens antigen presentation specifically in M2 alternative macrophages

Authors : Kiran Makhani, Nicolas De Jay, Coralie Charpy, Luis Fernando Negro Silva, Maryse Lemaire, Claudia L. Kleinman, and Koren K. Mann

Binding Partners of Glutathione Transferase Theta 1

Authors : Amy Hoff, P. David Josephy

Contraceptive use and ovarian cancer risk in BRCA1 and BRCA2 mutation carriers: a prospective cohort study

Authors : Yue Yin Xia, Jan Lubinski, Barry Rosen, Pal Moller, Andrea Eisen, Peter Ainsworth, Leigha Senter, Louise Bordeleau, Susan L. Neuhausen¹, Christian F. Singer, Ping Sun¹, Steven A. Narod, Joanne Kotsopoulos

Creating a Human Thyroperoxidase source for a Rapid Assay for Thyroid Disrupting Chemicals

Authors : Hongyan Dong, Michael G. Wade

Cytogenetic biomonitoring in tobacco smoking students: micronucleus evaluation in exfoliated oral mucosa cells

Authors : Verónica Ramírez, Cristopher Rivera, Andrea Guillén, Maritza A. Flores, José R. Martínez, Leonardo D. Molina, Olivia Bugarín

Developmental Abnormalities and Teratogenic Effects Induced by Metformin and Guanylyurea on Danio rerio Embryos

Authors : Gustavo A. Elizalde-Velázquez, Hariz Islas-Flores, Leobardo Gómez-Oliván

Dietary exposure to the food processing-induced chemical 2-MCPD causes cardiotoxicity in male and female F344 rats by eliciting differentially expressed genes (DEGs) and associated functional pathways related to oxidative stress

Authors : Lucien GJ Cayer, Jennifer Roberts, Harold M Aukema, Jayadev Raju

DNA Double-strand Breaks in Fetal Brains from Oxoguanine Glycosylase 1 (OGG1) Knockout Mice Exposed In Utero to Physiological or Ethanol-enhanced Levels of Reactive Oxygen Species (ROS)

Authors : Ashley Cheng and Peter G. Wells

Dynamic mass balance modeling for chemical distribution over time in in vitro systems with repeated dosing

Authors : Sherri Bloch, Marc-André Verner, Jon A. Arnot, James M. Armitage

Effects of an environmentally-relevant mixture of organophosphate esters on human adreno-carcinoma cells (H295R cells)

Authors : Zixuan Li, Bernard Robaire, Barbara F. Hales

Effects of organophosphate ester flame retardants on KGN cells, a human granulosa cell line

Authors : Xiaotong (Vicky) Wang, Barbara F. Hales, Bernard Robaire

Elucidation of Cytotoxic Effects of Bisphenol A and Structural Analogs on Germ and Steroidogenic Cells using Single Cell High-Content Imaging

Authors : Abishankari Rajkumar, Trang Luu, Marc A Beal, Tara S Barton-Maclaren, Bernard Robaire and Barbara F Hales

Establishing an Air-Liquid Interface Exposure System for Exposure of Lung Cells to Gases

Authors : Errol Thomson, Josée Guénette, Dalibor Breznán, Kevin Curtin, Alain Filiatreault, Marjolaine Godbout-Cheliak

High content imaging analyses of the effects of an environmentally relevant organophosphate ester mixture in the HepG2 cell line

Authors : Dongwei Yu, Barbara F. Hales, Bernard Robaire

Histopathological Changes in the liver and kidney of rat for predicting toxicity of a nanovesicular formulation of Amphotericin B

Authors : Jaijeet Singh, Harjeet Singh, Sunil Sharma, Subheet Kumar Jain

Identification of novel potential ricin inhibitors by virtual screening, molecular docking, molecular dynamics and MM-PBSA calculations – a drug repurposing approach

Authors : Fernanda D. Botelho, Marcelo C. Santos, Arlan S. Gonçalves, Tanos C. C. França¹, Steven R. LaPlante, Joyce S. F. D. de Almeida

Impacts of Ozone Exposure on the Insulin Signaling Pathway in the Liver

Authors : Mercedes Rose, Alain Filiatreault, Josée Guénette, Errol Thomson

In Vitro Cytotoxicity Characteristics of ZnO Nanoforms

Authors : N. Nazemof, N. Assudani, D. Breznan, Y. Dirieh, E. Blais, Linda Johnston, A. Tayabali, J. Gomes and P.Kumarathan

Investigating the effects of in utero benzene exposure on murine fetal DNA repair

Author : Christian Bilé

Investigation of myeloperoxidase involvement during the innate immune response to clozapine in rats

Authors : Samantha C. Sernoskie, Alison Jee, Jack P. Utrecht

Key considerations in the health effects assessment of sulfurized isobutylene

Authors : Sever Rotaru, Virginie Bergeron and Angelika Zidek

Naphthenic acid fraction of oil sands process affected water induces PPAR γ -mediated adipogenesis in murine adipocytes

Authors : Robert M. Gutgesell, Laiba Jamshed, Raji Rajingalam, Philippe J. Thomas, Richard A. Frank, L. Mark Hewitt, Alison C. Holloway

Next-generation per- and polyfluoroalkyl substances (PFAS) potency analysis: transcriptomic points of departure in exposed human liver cell spheroids to inform toxic potential

Authors : Anthony J.F. Reardon, Andrea Rowan-Carroll, Stephen S. Ferguson, Karen Leingartner, Remi Gagne, Byron Kuo, Andrew Williams, Luigi Lorusso, Julie A. Bourdon-Lacombe, Richard Carrier, Ivy Moffat, Carole L. Yauk, Ella Atlas

Quantifying the prevalence and predictors of arsenic exposure in Canada

Authors : Katherine Pullella, Shelley A. Harris, John McLaughlin, Jan Lubiński, Steven A. Narod, Joanne Kotsopoulos

Relationship Between Maternal Urinary Phthalates, Maternal Plasma Markers and Adverse Birth Outcomes

Authors : P. Kumarathan, J. Go, E. Blais, M. Fisher, J. Gomes, D. Krewski, T. E. Arbuckle, and W. D. Fraser

Reproductive and developmental toxicity in Fischer rats exposed to the mycotoxin ochratoxin A in diet

Authors : Anne Marie Gannon, Ivan Curran, Laurie Coady, Steven Bugiel, Don Caldwell, Keri Kwong, Francesco Marchetti, Clotilde Maurice, Peter Pantazopoulos and Genevieve Bondy

Review of literature to examine maternal and infant health outcomes from exposure to to PBDE & PCB during pregnancy

Authors : Myeesha Begum, Prem Kumarathan, James Gomes

The effects of BPA and its analogues on adipocyte differentiation

Authors : Singh. M , Sorisky. A, Atlas. E

The effects of dibenzothiophene and 2,4,7-trimethyldibenzothiophene on steroid and prostaglandin production in ovarian granulosa cells

Authors : Genevieve A. Perono, Laiba Jamshed, Usman Jamshed, Philippe J. Thomas and Alison C. Holloway

The Influence of Selenium on Arsenic Hepatobiliary Transport

Authors : Janet R. Zhou, Gurnit Kaur, Yingze Ma, Elaine M. Leslie

The role of anion exchanger 1 (AE1/SLC4A1) in human red blood cell arsenic and selenium sequestration

Authors : Kamran Shekh, Denis Arutyunov, Diane P. Swanlund, Naomi Potter, Emmanuelle Cordat, Elaine M Leslie

The story of 5 metal oxide nanoparticles: elucidating markers of toxicity in lung epithelial cells using global transcriptional analysis

Authors : Andrey Boyadzhiev, Dongmei Wu, Mary-Luyza Avramescu, Andrew Williams, Pat Rasmussen, Sabina Halappanavar

Tungsten Modulates the Germinal Center Response

Authors : Rowa Bakadlag, Mingyi Luo, Alexander Orthwein, Koren K. Mann

Using in vitro dichlorodiphenyldichloroethylene (DDE) obesogenicity data to estimate an acceptable exposure level for developing children

Authors : Sherri Bloch, Marc-André Verner

Weight of Evidence based evaluation and data integration related to elimination kinetics and persistence of effects of chemicals for intermittent exposure analysis

Authors :Asish Mohapatra, Angela Li-Muller, Sanya Petrovic, Nicole Somers