



# The 2023 Annual Meeting of the Canadian Society of Pharmacology and Therapeutics

June 7 & 8, 2023

## WEDNESDAY, JUNE 07, 2023

Pacific Time	Mountain Time	Central Time	Eastern Time	Atlantic Time	
8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	<b>Welcome Address</b> (Bruce Carleton, President CSPT)
8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 AM	<b>Top Trainee Abstracts Oral Presentations</b> Moderator: Tamorah Lewis (See below for list of presenters, P. 3)
10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	<b>Break and Poster Viewing</b> (See below for list of accepted abstracts, P. 7 - 12)
11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	<b>Rapid Fire Presentations</b> Moderator: Antonios Diab (See below for list of presenters, P. 4 - 6)
1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	<b>Break</b>
2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	<b>Career Networking Session</b> Hosted by Thomas Velenosi Guest Speakers: <b>Hayley Price</b> , Senior Scientist Bioanalysis, Meadowhawk Biolabs, Hayward, California <b>Meagan McKenna</b> , Senior Research Manager, Agada Biosciences, Halifax, Nova Scotia <b>Mike Knauer</b> , Clinical Biochemist, London Health Sciences Centre, London, Ontario 4 <sup>th</sup> Speaker to be announced (TBA)

## THURSDAY, JUNE 08, 2023

Pacific Time	Mountain Time	Central Time	Eastern Time	Atlantic Time	
8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	<b>Junior Investigator Award Platform Presentation</b> Moderator: Dylan Burger (Presenter TBA)
8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 AM	<b>Senior Investigator Award Platform Presentation</b> <b>Bruno Giros, PhD</b> , McGill University <i>Deciphering the role of D1/D2 dopamine receptors co-expressing striatal neurons in motor control using intersectional genetics</i>
9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	<b>Clinical Pharmacology Case Studies</b> Moderator: Bruce Carleton (Presenters TBA)

10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	<b>Break and Poster Viewing</b> (See below for list of accepted abstracts, P. 7 - 12)
11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	<b>Clinical Fellow and Postdoctoral Fellow Award Platform Presentations</b> (Presenters TBA)
11:40 AM	12:40 PM	1:40 PM	2:40 PM	3:40 PM	<b>Annual General Meeting</b>
1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	<b>Break</b>
2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	<b>Social: Kahoots Trivia</b> (Hosted by Michael Rieder)



## Wednesday, June 7<sup>th</sup> – Presentation Schedule

### Top Trainee Abstracts Oral Presentations (8:10 AM – 10:00 AM Pacific)

- 8:10 AM PT** *The incorporation of single cell sequencing data to develop a polygenic risk score to predict cisplatin-induced tinnitus* – **Feryal Ladha** (Department of Biochemistry and Medical Genetics, University of Manitoba)
- 8:21 AM PT** *The impact of glucocorticoid treatment on health-related quality of life in children with rheumatic diseases: A Scoping Review* – **Renee Pang** (Western University)
- 8:32 AM PT** *Exploring the molecular promiscuity of L-phenylalanine (Phe) activation of G protein-coupled receptors* – **Peter Oni** (Mount Allison University)
- 8:43 AM PT** *Activation of free fatty acid receptor 3 (FFA3) stimulates glucagon-like peptide-1 (GLP-1) release from enteroendocrine L-cells by non-canonical signaling mechanisms* – **Karly Masse** (Western University)
- 8:54 AM PT** *The effects of NETs on endothelial health and function* – **Chloé Landry** (Ottawa Hospital Research Institute/University of Ottawa)
- 9:05 AM PT** *Characterizing a Metabolic Phenotype Susceptible to Polyamine Pathway Targeted Treatment in Triple Negative Breast Cancer* – **Chloe White** (University of British Columbia)
- 9:16 AM PT** *Polygenic Risk Score associated with increased risk of L-asparaginase induced hypersensitivity* – **Spencer Anderson** (University of British Columbia/BC Children's Hospital)
- 9:27 AM PT** *Early endothelial function activation by losartan prevents aortic stiffness in a model of type 1 diabetes* – **Chris Yuen** (University of British Columbia)
- 9:38 AM PT** *Protein kinase A mediated regulation of equilibrative nucleoside transporter subtype 2* – **Nayiar Shahid** (University of Alberta)
- 9:49 AM PT** *Genomic Risk Factors of Vincristine-Induced Peripheral Neuropathy* – **Kheireddin Mufti** (Department of Medical Genetics, University of British Columbia/British Columbia Children's Hospital Research Institute)

## Rapid Fire Presentations (11:00 AM – 1:00 PM Pacific) –

### Order of presentations:

1. *Infant Poisoning in the First Year of Life: A Cohort Study of an International Toxicology Surveillance Registry* – **Justin Williamson** (Department of Paediatrics, SickKids/Departments of Paediatrics and Pharmacology and Toxicology, University of Toronto)
2. *Jadomycin B Causes Human Breast Cancer Cell Death Through Inhibition of Cyclooxygenase-2 Signalling* – **Brendan McKeown** (Dalhousie University/Beatrice Hunter Cancer Research Institute)
3. *Characterizing the mechanism of doxorubicin-mediated SAT1 induction in triple-negative breast cancer* – **Caroline Liang** (University of British Columbia)
4. *Investigating the Anticancer Properties of Anthocyanin-Rich Extracts from *Aponogeton madagascariensis* in Triple Negative Breast Cancer Cells* – **Shanukie Embuldeniya** (Dalhousie University)
5. *Erythropoietin single nucleotide polymorphic rs507293 correlates with dyslipidemia* – **Victoria Northrup** (Dalhousie University/IMPART Investigator Team Canada)
6. *Characterizing Opioid Overdose Deaths in Children (COODC Study)* – **Katrina Assen** (Western University)
7.  *$\beta$ -Arrestin recruitment and biased agonism at the M1 muscarinic receptor* – **Shayan Amiri** (Department of Pharmacology and Therapeutics, University of Manitoba/Division of Neurodegenerative Disorders, St. Boniface Hospital Albrechtsen Research Centre)
8. *Developing a Mouse Model to Study the Mechanisms of Peg-asparaginase-induced Pancreatitis* – **Esther Bonitto** (Dalhousie University)
9. *Mechanisms of Mitochondrial Calcium Uniporter (MCU) Inhibition by the Dominant-Negative Beta Subunit (MCUb)* – **Danielle Colussi** (Western University)
10. *Parameterization of Rat Liver and Kidney Scaling Factors for Improved Pharmacokinetic and Toxicokinetic Prediction* – **Michael Doerksen** (University of British Columbia)
11. *Cytoprotection by nanobioparticle drug delivery* – **Benny Habiyambere** (Dalhousie Medicine New Brunswick/Dalhousie University/IMPART Investigator Team Canada)
12. *Pharmacokinetic Characterization of a Novel Cannabidiol Analogue* – **Aaron Simkovich** (London Research and Pharmaceutical Corporation/Department of Physiology and Pharmacology, Western University)

13. *Characterization of N,N,N-Trimethyl-L-Alanyl-L-Proline betaine (TMAP) as a Candidate Biomarker of Kidney Function* – **Nicole Sidor** (Department of Physiology and Pharmacology, University of Western Ontario)
14. *Training the next generation of pharmacist immunizers on the CARD (Comfort, Ask, Relax, Distract) vaccine delivery framework* – **Victoria Gudzak** (University of Toronto)
15. *Opioids Safety in Pediatric Procedural Sedation with Ketamine and Opioids* – **Nata Cohen** (Hospital for Sick Children)
16. *Development of a polygenic score to predict cisplatin-induced ototoxicity* – **Deanne Nixie Miao** (Department of Biochemistry and Medical Genetics, University of Manitoba)
17. *Effect of nucleocapsid protein of SARS-COV-2 on endothelial inflammation* – **Mehreen Tufail** (Western University)
18. *Variation at the TLR4 locus influences susceptibility to cisplatin-induced hearing loss in cancer patients* – **Asna Latif** (University of Alberta)
19. *The effect of chronic metformin exposure on adult zebrafish stress physiology* – **Mobeen Ramzan** (Western University)
20. *Psilocybin and Eugenol Ameliorate LPS-induced Liver Inflammation in Mice* – **Greg Robinson** (University of Lethbridge/University of Illinois Urbana-Champaign)
21. *The human MRS2 magnesium-binding domain is a regulatory feedback switch for channel activity* – **Tulsy Uthayabalan** (Western University)
22. *Metabolic Shock-Induced Yap Translocation in Cardiomyotubes as a Model of Adaptation to Cardiac Injury* – **Tori Nelson** (Dalhousie University/IMPART)
23. *Gestational Diabetes Mellitus Induces Cardiac Dysfunction and Altered Mitochondrial Protein Acetylation in the Offspring Heart* – **Caitlin Menzies** (Department of Pharmacology and Therapeutics, University of Manitoba/Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Theme)
24. *The Effect of L-Phenylalanine at Glutamate Synapses in the Rat Dorsomedial Hypothalamus* – **Diwan Minocha** (Mount Allison University)
25. *SIRT3 Deficiency in the Liver and Development of Gestational Diabetes* – **Khushali Trivedi** (Department of Pharmacology and Therapeutics, University of Manitoba/Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Theme of the Children's Hospital Institute of Manitoba)

- 26.** *Maternal RESV Supplementation and the Effects on Mitochondrial Metabolism and Cardiac hypertrophy in Fetal Cardiomyocytes* – **Marcelo Ninalaya** (Department of Pharmacology and Therapeutics, University of Manitoba/Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Theme of the Children’s Hospital Institute of Manitoba)
- 27.** *Trick or Treat? Investigating the biological effects of sucralose signaling through GPR52 in the gut* – **SunMin Park** (Mount Allison University)
- 28.** *A microfluidic brain-on-a-chip model for examining blood-brain barrier (BBB) response to the tumor microenvironment and approaches to enhance drug delivery to the brain* – **Stacey Line** (University of Manitoba)

## 2023 Accepted Abstracts and Poster Presentations –

### **$\beta$ -Arrestin recruitment and biased agonism at the M1 muscarinic receptor**

Shayan Amiri<sup>1,2</sup>, Paul Fernyhough<sup>1,2</sup>

<sup>1</sup>Department of Pharmacology and Therapeutics, University of Manitoba, Winnipeg, Canada. <sup>2</sup>Division of Neurodegenerative Disorders, St Boniface Hospital Albrechtsen Research Centre, Winnipeg, Canada

### **A microfluidic brain-on-a-chip model for examining blood-brain barrier (BBB) response to the tumor microenvironment and approaches to enhance drug delivery to the brain**

Stacey Line<sup>1</sup>, Donald Miller<sup>2</sup>, Magimairajan Vanan<sup>2</sup>, Sajesh Babu<sup>2</sup>, Teruna Siahann<sup>3</sup>, Kelly Schwinghamer<sup>3</sup>

<sup>1</sup>University of Manitoba, Narol, Canada. <sup>2</sup>University of Manitoba, Winnipeg, Canada. <sup>3</sup>University of Kansas, Kansas, USA

### **Activation of free fatty acid receptor 3 (FFA3) stimulates glucagon-like peptide-1 (GLP-1) release from enteroendocrine L-cells by non-canonical signaling mechanisms**

Karly E. Masse, Jackie Han, Paramveer Love, Van B. Lu

Western University, London, Canada

### **Alpha-lipoic acid protects against gliclazide-induced hepatotoxicity in high glucose-exposed HepG2 cells and type 2 diabetic rats**

George Dugbartey<sup>1,2</sup>, Karl Alornyo<sup>1</sup>, Stephen Atule<sup>1</sup>, Richard Obeng-Kyeremeh<sup>1</sup>, Daniel Amoah<sup>1</sup>, Samuel Adjei<sup>1</sup>

<sup>1</sup>University of Ghana, Accra, Ghana. <sup>2</sup>University of Western Ontario, London, Canada

### **Characterization of N,N,N-Trimethyl-L-Alanyl-L-Proline betaine (TMAP) as a Candidate Biomarker of Kidney Function**

Nicole Sidor<sup>1</sup>, Sophie Nie<sup>1</sup>, Thomas Velenosi<sup>2</sup>, Gilles Lajoie<sup>3</sup>, Rommel Tirona<sup>1</sup>, Bradley Urquhart<sup>1</sup>

<sup>1</sup>Department of Physiology and Pharmacology, Schulich School of Medicine and Dentistry, University of Western Ontario, London, ON, Canada. <sup>2</sup>Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, BC, Canada. <sup>3</sup>Department of Biochemistry, University of Western Ontario, London, ON, Canada

### **Characterizing a Metabolic Phenotype Susceptible to Polyamine Pathway Targeted Treatment in Triple Negative Breast Cancer**

Chloe White, Thomas Velenosi

University of British Columbia, Vancouver, Canada

### **Characterizing Opioid Overdose Deaths in Children (COODC Study)**

Katrina Assen<sup>1</sup>, Michael Wilson<sup>2</sup>, Elizabeth Urbantke<sup>3</sup>, Michael Rieder<sup>1</sup>

<sup>1</sup>Western University, London, Canada. <sup>2</sup>Office of the Chief Coroner, Thunder Bay, Canada. <sup>3</sup>Office of the Chief Coroner, London, Canada

### **Characterizing the mechanism of doxorubicin-mediated SAT1 induction in triple-negative breast cancer**

Caroline Liang, Chloe White, Thomas Velenosi

The University of British Columbia, Vancouver, Canada

## Cytoprotection by nanobioparticle drug delivery

Benny Habiyambere<sup>1,2,3</sup>, Anirban Ghosh<sup>4</sup>, Kyle Wells<sup>1,2,3</sup>, Ashley Eadie<sup>1,2,3</sup>, Keith Brunt<sup>1,2,3</sup>

<sup>1</sup>Dalhousie Medicine New Brunswick, Saint John, Canada. <sup>2</sup>Dalhousie University, Halifax, Canada. <sup>3</sup>IMPART Investigator Team Canada, Saint John, Canada. <sup>4</sup>Pividl Bioscience, Moncton, Canada

## Developing a Mouse Model to Study the Mechanisms of Peg-asparaginase-induced Pancreatitis

Esther Bonitto<sup>1</sup>, Zara Forbrigger<sup>1,2</sup>, Ketan Kulkarni<sup>1,2</sup>, Kerry Goralski<sup>1,2</sup>

<sup>1</sup>Dalhousie University, Halifax, Canada. <sup>2</sup>IWK Health Centre, Halifax, Canada

## Development of a polygenic score to predict cisplatin-induced ototoxicity

Deanne Nixie Miao<sup>1</sup>, Mackenzie Wilke<sup>1</sup>, Feryal Ladha<sup>1</sup>, Mary McAuley<sup>1</sup>, Urim Iyasere<sup>1</sup>, Britt Drogemoller<sup>1,2,3</sup>

<sup>1</sup>Department of Biochemistry and Medical Genetics, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada. <sup>2</sup>CancerCare Manitoba Research Institute, Winnipeg, Canada. <sup>3</sup>Children's Hospital Research Institute of Manitoba, Winnipeg, Canada

## Dissecting the role of branched-chain amino acids and branched-chain keto acids in modulating cardiac adverse remodelling in heart failure

Qutuba Karwi<sup>1</sup>, Liyan Zhang<sup>1</sup>, Cory Wagg<sup>1</sup>, Keshav Gopal<sup>2</sup>, Golam Mezbah Uddin<sup>1</sup>, Kim Ho<sup>1</sup>, Qiuyu Sun<sup>1</sup>, Sai Panidarapu<sup>1</sup>, Kaya Persad<sup>1</sup>, Betul Altunay<sup>1</sup>, Shaden Deman<sup>1</sup>, Jody Levasseur<sup>1</sup>, John Ussher<sup>2</sup>, Jason Dyck<sup>1</sup>, Gary Lopaschuk<sup>1</sup>

<sup>1</sup>Cardiovascular Research Centre, University of Alberta, Edmonton, Canada. <sup>2</sup>Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, Canada

## Early endothelial function activation by losartan prevents aortic stiffness in a model of type 1 diabetes.

Chris Yuen<sup>1</sup>, Zoe White<sup>1</sup>, Angela Devlin<sup>1,2</sup>, Pascal Bernatchez<sup>1</sup>

<sup>1</sup>University of British Columbia, Vancouver, Canada. <sup>2</sup>BC Children's Hospital Research Centre, Vancouver, Canada

## Effect of nucleocapsid protein of SARS-COV-2 on endothelial inflammation

Mehreen Tufail, Qingping Feng, Xiangru Lu, Brent Tschirhart, Stephen Barr

Western University, London, Canada

## Erythropoietin single nucleotide polymorphic rs507293 correlates with dyslipidemia

Victoria Northrup<sup>1,2</sup>, Jermey A. Simpson<sup>3,2</sup>, Keith R. Brunt<sup>4,2</sup>

<sup>1</sup>Dalhousie University, Halifax, Canada. <sup>2</sup>IMPART investigator team Canada, Saint John, Canada. <sup>3</sup>University of Guelph, Guelph, Canada. <sup>4</sup>Dalhousie University, Halifax, Canada

## Exploring the molecular promiscuity of L-phenylalanine (Phe) activation of G protein-coupled receptors

O. Peter Oni, Madeline E. Power, Jillian L. Rourke

Mount Allison University, Sackville, Canada



## Genomic Risk Factors of Vincristine-Induced Peripheral Neuropathy

Kheireddin Mufti<sup>1,2</sup>, Miguel Cordova<sup>2,3</sup>, Erika Scott<sup>1,2</sup>, Jessica Trueman<sup>2,3</sup>, Jessica Lovnicki<sup>2,3</sup>, Catrina Loucks<sup>2,3,4</sup>, Shahrad Rassekh<sup>2,5</sup>, Colin Ross<sup>1,2,6</sup>, Bruce Carleton<sup>1,2,3,7</sup>

<sup>1</sup>Department of Medical Genetics, Faculty of Medicine, University of British Columbia, Vancouver, Canada.

<sup>2</sup>British Columbia Children's Hospital Research Institute, Vancouver, Canada. <sup>3</sup>Division of Translational Therapeutics, Department of Pediatrics, Faculty of Medicine, University of British Columbia, Vancouver, Canada.

<sup>4</sup>Department of Anesthesiology, Pharmacology & Therapeutics, Faculty of Medicine, University of British Columbia, Vancouver, Canada. <sup>5</sup>Division of Hematology, Oncology & Bone Marrow Transplant, Department of Pediatrics, Faculty of Medicine, University of British Columbia, Vancouver, Canada.

<sup>6</sup>Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, Canada. <sup>7</sup>Pharmaceutical Outcomes Programme, BC Children's Hospital, Vancouver, Canada

## Gestational Diabetes Mellitus Induces Cardiac Dysfunction and Altered Mitochondrial Protein Acetylation in the Offspring Heart

Caitlin Menzies<sup>1,2</sup>, Mateusz Tomczyk<sup>1,2</sup>, Bo Xiang<sup>1,2</sup>, Stephanie Kereliuk<sup>1,2</sup>, Vernon Dolinsky<sup>1,2</sup>

<sup>1</sup>Department of Pharmacology and Therapeutics, University of Manitoba, Winnipeg, Canada. <sup>2</sup>Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Theme, Winnipeg, Canada

## Infant Poisoning in the First Year of Life: A Cohort Study of an International Toxicology Surveillance Registry

Justin Williamson<sup>1,2</sup>, Asaph Rolnitsky<sup>3,4</sup>, Yaron Finkelstein<sup>1,2</sup>

<sup>1</sup>Department of Paediatrics, The Hospital for Sick Children, Toronto, Canada. <sup>2</sup>Departments of Paediatrics and Pharmacology and Toxicology, University of Toronto, Toronto, Canada. <sup>3</sup>Neonatal-Perinatal Medicine, Sunnybrook Health Sciences Centre, Toronto, Canada. <sup>4</sup>Department of Paediatrics, University of Toronto, Toronto, Canada

## Investigating the Anticancer Properties of Anthocyanin-Rich Extracts from *Aponogeton madagascariensis* in Triple Negative Breast Cancer Cells

Shanukie Embuldeniya, Kerry Goralski, Arunika Gunawardena  
Dalhousie University, Halifax, Canada

## In Vitro Anti-Diabetic Activity and Mechanism of Action of Root Extract of *Sansevieria liberica* Gerome & Labroy (Dracaenaceae) and its Different Solvent Extracts.

Omowunmi Amao<sup>1</sup>, Margaret Sofidiya<sup>2</sup>, Adedunni Olusanya<sup>1</sup>, Oluwamuyiwa Fasina<sup>1</sup>

<sup>1</sup>College of Medicine, University of Lagos, Idiaraba, Nigeria. <sup>2</sup>University of Lagos, Idiaraba, Nigeria

## Jadomycin B Causes Human Breast Cancer Cell Death Through Inhibition of Cyclooxygenase-2 Signalling

Brendan T. McKeown<sup>1,2</sup>, Kerry B. Goralski<sup>1,2,3</sup>

<sup>1</sup>Dalhousie University, Halifax, Canada. <sup>2</sup>Beatrice Hunter Cancer Research Institute, Halifax, Canada. <sup>3</sup>IWK Health Centre, Halifax, Canada

## Maternal RESV Supplementation and the Effects on Mitochondrial Metabolism and Cardiac hypertrophy in Fetal Cardiomyocytes.

Marcelo Ninalaya<sup>1,2</sup>, Mateusz Tomczyk<sup>1,2</sup>, Bo Xiang<sup>1,2</sup>, Gabriel Brawerman<sup>1,2</sup>, Stephanie Kereliuk<sup>1,2</sup>, Vernon Dolinsky<sup>1,2</sup>

<sup>1</sup>Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Theme of the Children's Hospital Research Institute of Manitoba, Winnipeg, Canada. <sup>2</sup>Department of Pharmacology and Therapeutics, Rady Faculty of Health Science, College of Medicine, University of Manitoba, Winnipeg, Canada

## Mechanisms of Mitochondrial Calcium Uniporter (MCU) Inhibition by the Dominant-Negative Beta Subunit (MCUb)

Danielle M. Colussi, Ryan Grainger, Murray Junop, Peter B. Stathopoulos  
Western University, London, Canada

## Metabolic Shock-Induced Yap Translocation in Cardiomyotubes as a Model of Adaptation to Cardiac Injury

Victoria Nelson<sup>1,2</sup>, Lester Perez<sup>1</sup>, Michael Connolly<sup>1</sup>, Malav Madhu<sup>1</sup>, Mathew Platt<sup>3</sup>, Keith Brunt<sup>1,2</sup>, Jeremy Simpson<sup>3,2</sup>

<sup>1</sup>Dalhousie University, Saint John, Canada. <sup>2</sup>IMPART, Saint John, Canada. <sup>3</sup>University of Guelph, Guelph, Canada

## Opioids Safety in Pediatric Procedural Sedation with Ketamine and Opioids

Neta Cohen<sup>1</sup>, Gidon Test<sup>1</sup>, Yehonatan Pasternak<sup>1</sup>, Dana Singer Harel<sup>1</sup>, Suzan Schneeweiss<sup>1</sup>, Savithiri Ratnapalan<sup>1</sup>, Suzanne Schuh<sup>1</sup>, YARON Finkelstein<sup>2</sup>

<sup>1</sup>Hospital for Sick Children, Toronto, Canada. <sup>2</sup>Toronto, Toronto, Canada

## Parameterization of Rat Liver and Kidney Scaling Factors for Improved Pharmacokinetic and Toxicokinetic Prediction

Michael Doerksen, Abby Collier  
The University of British Columbia, Vancouver, Canada

## Pharmacokinetic Characterization of a Novel Cannabidiol Analogue

Aaron Simkovich<sup>1,2</sup>, Tamer Abdelghany<sup>3,4</sup>, Aurelia Bihari<sup>1,5</sup>, Doaa Mossaad<sup>1</sup>, Pavan Mandapati<sup>1</sup>, Eden Reid<sup>2</sup>, Brad Urquhart<sup>2</sup>, Mahmoud Moustafa<sup>1</sup>

<sup>1</sup>London Research and Pharmaceutical Corporation, London, Canada. <sup>2</sup>Department of Physiology and Pharmacology, Schulich School of Medicine & Dentistry, Western University, London, Canada. <sup>3</sup>Department of Pharmacology and Toxicology, Faculty of Pharmacy, Al-Azhar University, Cairo, Egypt. <sup>4</sup>Department of Pharmacology and Toxicology, Faculty of Pharmacy, Heliopolis University for Sustainable Development, Cairo, Egypt. <sup>5</sup>Department of Surgery, Division of Orthopaedic Surgery, Schulich School of Medicine & Dentistry, Western University, London, Canada

## Pharmacokinetics of Recombinant Human Annexin A5 (SY-005) in Severe COVID-19

Brent J. Tschirhart<sup>1,2</sup>, Xiangru Lu<sup>1</sup>, Aristide Kognou<sup>1</sup>, Claudio M. Martin<sup>3,2</sup>, Douglas D. Fraser<sup>3,2</sup>, Aleksandra Leligdowicz<sup>3,4,5</sup>, Bradley Urquhart<sup>6,2</sup>, Qingping Feng<sup>1,2</sup>

<sup>1</sup>Department of Physiology and Pharmacology, Schulich School of Dentistry and Medicine, Western University, London, Canada. <sup>2</sup>Lawson Health Research Institute, London Health Sciences Centre, London, Canada. <sup>3</sup>Division of Critical Care, Department of Medicine, Schulich School of Dentistry and Medicine, Western University, London, Canada. <sup>4</sup>Robarts Research Institute, Schulich School of Dentistry and Medicine, Western University, London, Canada. <sup>5</sup>Department of Microbiology and Immunology, Schulich School of Dentistry and Medicine, Western University, London, Canada. <sup>6</sup>University of Western Ontario, Schulich School of Medicine and Dentistry, London, Canada

## Polygenic Risk Score associated with increased risk of L-asparaginase induced hypersensitivity

Spencer Anderson<sup>1,2</sup>, Erika Scott<sup>1,2</sup>, Catrina Loucks<sup>2,1</sup>, Rod Rassekh<sup>1,2</sup>, Colin Ross<sup>1,2</sup>, Bruce Carleton<sup>1,2</sup>  
<sup>1</sup>University of British Columbia, Vancouver, Canada. <sup>2</sup>BC Children's Hospital, Vancouver, Canada

## Protein kinase A mediated regulation of equilibrative nucleoside transporter subtype 2

Nayyar Shahid<sup>1</sup>, James Hammond<sup>2</sup>  
<sup>1</sup>University of Alberta, Edmonton, Canada. <sup>2</sup>Edmonton, Edmonton, Canada

## Psilocybin and Eugenol Ameliorate LPS-induced Liver Inflammation in Mice

Gregory Robinson  
University of Lethbridge, Lethbridge, Canada. University of Illinois Urbana-Champaign, Champaign, Canada

## SIRT3 Deficiency in the Liver and Development of Gestational Diabetes

Khushali Trivedi<sup>1,2</sup>, Bo Xiang<sup>1,2</sup>, Vernon Dolinsky<sup>1,2</sup>  
<sup>1</sup>Department of Pharmacology & Therapeutics, University of Manitoba, Winnipeg, Canada. <sup>2</sup>Diabetes Research Envisioned & Accomplished in Manitoba (DREAM) Theme of the Children's Hospital Research Institute of Manitoba, Winnipeg, Canada

## The effect of chronic metformin exposure on adult zebrafish stress physiology

Mobeen Ramzan<sup>1</sup>, Maya Piasecki<sup>1</sup>, Roshan Sivarajah<sup>1</sup>, Shemar Williams<sup>2</sup>, Jessica Qiu<sup>2</sup>, Joanna Wilson<sup>2</sup>, Oana Birceanu<sup>1,2</sup>  
<sup>1</sup>The Department of Physiology and Pharmacology, Schulich School of Medicine & Dentistry, The University of Western Ontario, London, ON, Canada  
<sup>2</sup>Department of Biology, McMaster University, Hamilton, ON, Canada

## The Effect of L-Phenylalanine at Glutamate Synapses in the Rat Dorsomedial Hypothalamus

Diwan Minocha, Karen Crosby, Jillian Rourke  
Mount Allison University, Sackville, Canada

## The effects of NETs on endothelial health and function

Chloé Landry<sup>1,2</sup>, Lihua Zhu<sup>1</sup>, Dylan Burger<sup>1,2</sup>  
<sup>1</sup>Ottawa Hospital Research Institute, Ottawa, Canada. <sup>2</sup>University of Ottawa, Ottawa, Canada

## The expression and activities of alcohol dehydrogenase, aldehyde dehydrogenase, and aldehyde oxidase in minipig liver

Rei Sato<sup>1,2</sup>, Austin Zimmer<sup>1</sup>, Dickson Lai<sup>1</sup>, Michael Doerksen<sup>1</sup>, Miki Nakajima<sup>2</sup>, Abby Collier<sup>1</sup>  
<sup>1</sup>The University of British Columbia, Vancouver, Canada. <sup>2</sup>Kanazawa University, Kanazawa, Japan

## The human MRS2 magnesium-binding domain is a regulatory feedback switch for channel activity

Sukanthathulse Uthayabalan  
Ottawa, Ottawa, Canada

## The impact of glucocorticoid treatment on health-related quality of life in children with rheumatic diseases: A Scoping Review

Renee Pang, Barbara Murray, Erkan Demirkaya, Michael Rieder, Roberta Berard  
Western University, London, Canada

## The incorporation of single cell sequencing data to develop a polygenic risk score to predict cisplatin-induced tinnitus

Feryal Ladha<sup>1</sup>, Urim Iyasere<sup>1</sup>, Britt Drogemoller<sup>1,2,3,4</sup>

<sup>1</sup>Department of Biochemistry and Medical Genetics, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada. <sup>2</sup>CancerCare Manitoba Research Institute, Winnipeg, Canada. <sup>3</sup>Children's Hospital Research Institute of Manitoba, Winnipeg, Canada. <sup>4</sup>Centre on Aging, Winnipeg, Canada

## Training the next generation of pharmacist immunizers on the CARD (Comfort, Ask, Relax, Distract) vaccine delivery framework

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## Trick or Treat? Investigating the biological effects of sucralose signaling through GPR52 in the gut

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## Variation at the *TLR4* locus influences susceptibility to cisplatin-induced hearing loss in cancer patients

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