



women & children's  
health research institute



**2019** **RESEARCH DAY**  
**PROGRAM GUIDE**

**#wchriRD2019**

# TABLE OF CONTENTS

EXECUTIVE DIRECTOR'S MESSAGE

4

WCHRI OVERVIEW

5

PROGRAM AT A GLANCE

6

DETAILED PROGRAM

7

LIST OF PRESENTERS

35

VENUE MAP

39

© 2019 Women and Children's Health Research Institute (WCHRI), University of Alberta (780) 248-5602 [www.wchri.org](http://www.wchri.org). This work is available under the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) <https://creativecommons.org/licenses/by-nc/4.0/>.

## ENGAGE WITH US ON SOCIAL MEDIA!

Follow us on Facebook and Twitter to stay up to date on all WCHRI events and information.



@wchriUofA

#wchriRD2019

## PLEASE NOTE

Abstracts are published in the format they were received and have not been edited by WCHRI.

For full abstracts, please visit [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).

All photos supplied by presenters.



## THANK YOU

These amazing research projects wouldn't be possible without the continued partnership of the University of Alberta, Alberta Health Services, the Stollery Children's Hospital Foundation and supporters of the Lois Hole Hospital for Women.

Through the support of our partners, we are able to gather some of the most brilliant minds in research together to collaborate and share ideas that will make the future of both women and children brighter.



## EXECUTIVE DIRECTOR'S MESSAGE



I'm excited to welcome you all to our 12th annual WCHRI Research Day!

WCHRI Research Day gets bigger and better every year and this year is no exception. This year, we received over 230 abstracts, which cover a broad spectrum of women's, children's and perinatal health. I personally look forward to seeing the excellent work of our trainees, who have all worked very hard on their poster and oral presentations for today.

We are honoured to welcome our esteemed keynote speaker, Bonnie Stevens, a world-renowned researcher in pediatric pain management. Her talk today will focus on her learnings in implementation strategies for changing healthcare provider pain practices and

child health outcomes. Thank you to Bonnie for sharing her expertise and insights with us.

In addition to Bonnie's lecture, we're pleased to offer three morning workshops focused around knowledge translation this year. Knowledge translation helps us "bridge the gap," which is so critically important to providing evidence-based care. I encourage you all to participate in these valuable sessions.

Thank you to everyone who helped make Research Day 2019 possible. This highly anticipated event couldn't happen without the commitment and support of our presenters, judges, organizers and participants. And of course, a special "thank you" to our generous and visionary Foundations, the Stollery Children's Hospital Foundation and the Royal Alexandra Hospital Foundation. Their passion for women's and children's health is truly uplifting and helps us pave the way for a healthier future.

I hope that you enjoy the day and leave feeling inspired for what's ahead.

A handwritten signature in black ink that reads "Sandra Davidge".

**Sandra Davidge, PhD**

Executive Director

Women and Children's Health Research Institute



## MISSION

WCHRI will foster the brightest minds to discover, innovate and ultimately transform the health of children and women through supporting research excellence.

## VISION



To harness the power of research innovation for a healthy future for children and women.



WCHRI supports research excellence dedicated to improving the health and lives of women and children. As the only research institute in Canada to focus on both women's and children's health, including perinatal health, WCHRI is proud to provide funding opportunities and support programs that improve health care delivery for women and children.

Our membership is composed of over 500 leading and rising researchers, from a range of academic and clinical disciplines, who are committed to improving women's and children's health outcomes.



## RESEARCH THEMES

WCHRI currently has three major research areas of focus.



### Children's health and well-being

Identify effective treatments to address the unique health needs of children; improve our understanding of rare and complex childhood diseases.



### Pregnancy and developmental trajectories

Optimize maternal and infant health outcomes; develop early interventions and prevention strategies to reduce the risk for lifelong chronic disease.



### Lifelong women's health

Foster research that addresses the unique health needs of women, particularly in areas that are under-supported and under-researched.

# PROGRAM AT A GLANCE

7 – 7:45 a.m. **Registration and breakfast** – *Ballroom*

7:45 – 7:55 a.m. **Welcome – Sandra Davidge and Lawrence Richer** – *Ballroom*

8 – 8:55 a.m.	<b>Workshop #1</b> <i>Turner Valley Room</i>  <b>Data looks better naked</b>	<b>Workshop #2</b> <i>Leduc Room</i>  <b>Inquisitive and engaged: Bridging the knowledge-action gap in basic/clinical research</b>	<b>Workshop #3</b> <i>Chairman Room</i>  <b>Storytelling: More than a bedtime ritual</b>
---------------	---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

9 – 10 a.m. **Poster viewing 1** – *Ballroom and Foyer* (Note: new location)

10:15 – 11:45 a.m.	<b>Oral #1</b> <i>Turner Valley Room</i>  <b>Knowledge translation and decision-making</b>	<b>Oral #2</b> <i>Leduc Room</i>  <b>Pregnancy and developmental trajectories</b>	<b>Oral #3</b> <i>Consulate Room</i>  <b>Children’s health and well-being: Respiratory health</b>	<b>Oral #4</b> <i>Chancellor Room</i>  <b>Children’s health and well-being: Development</b>	<b>Oral #5</b> <i>Chairman Room</i>  <b>Lifelong women’s health</b>
--------------------	-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------

11:45 a.m. – 12:30 p.m. **Lunch** – *Ballroom*

12:30 – 12:45 p.m. **The Power of Partnership – Mike House and Andrew Otway** – *Ballroom*

12:45 – 1:40 p.m. **Keynote speaker** – *Ballroom*  
**Bonnie Stevens – Innovative individual and organizational implementation strategies for changing healthcare provider pain practices and child health outcomes**

1:45 – 2:45 p.m. **Poster viewing 2** – *Ballroom and Foyer* (Note: new location)

3 – 4:30 p.m.	<b>Oral #6</b> <i>Turner Valley Room</i>  <b>Children’s health and well-being: Nutrition and gastrointestinal health</b>	<b>Oral #7</b> <i>Leduc Room</i>  <b>Pregnancy and developmental trajectories</b>	<b>Oral #8</b> <i>Consulate Room</i>  <b>Lifelong women’s health</b>	<b>Oral #9</b> <i>Chancellor Room</i>  <b>Children’s health and well-being: Development</b>	<b>Oral #10</b> <i>Chairman Room</i>  <b>Pediatric residents</b>
---------------	-----------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

4:30 – 5 p.m. **Networking reception**  
**“Ask the expert” session** – *Ballroom*

5 – 5:15 p.m. **Awards / Wrap-up** – *Ballroom*

## DETAILED PROGRAM

7 – 7:45 a.m.      Registration and breakfast – *Ballroom*

7:45 – 7:55 a.m.      **Welcome** – *Ballroom*

**Sandra Davidge**, executive director, Women and Children’s Health Research Institute  
**Lawrence Richer**, associate director, Women and Children’s Health Research Institute

## WORKSHOP #1

8 – 8:55 a.m.      *Turner Valley Room*

### **DATA LOOKS BETTER NAKED**

**Joey Cherdarchuk**

Too often when we visualize our data we try to dress it up when we should be stripping it down. In this talk we’ll walk through some of the common pitfalls people encounter when trying to communicate with data. We’ll review best practices to ensure your data speaks to your audience.

The learning objectives of this workshop are to:

1. understand how visuals can distort your data and how to avoid it.
2. learn methods to increase the clarity of your visuals.
3. know the key factors needed to create a successful visual.

**Joey Cherdarchuk** is co-founder and the design lead at Darkhorse Analytics.



A data visualization expert, his work has been highlighted in the *New York Times*, the *Huffington Post* and the *Washington Post*. His “Breathing City” graphic was shortlisted for an Information is Beautiful Award. Cherdarchuk developed his design expertise after a 15-year quantitative analysis and consulting career. It is this analytical foundation that helps him create visuals that are both clear and engaging. He provides training on data visualization and his Data Looks Better Naked series is used in visualization curricula around the world.



## WORKSHOP #2

8 – 8:55 a.m.

*Leduc Room*

### **INQUISITIVE AND ENGAGED: BRIDGING THE KNOWLEDGE-ACTION GAP IN BASIC/CLINICAL RESEARCH**

**Jason Acker, Oana Caluseriu and Jason Dyck**

Translating scientific and technological advances in medical research laboratories into care for patients in hospitals and communities can be a major challenge. Identifying and addressing these barriers will help to improve the quality of care for patients and their families. Our presenters will share their experiences in translating their own research, working with both patient and community groups and policy makers to implement their findings.

The panel will include:

- Brief high-level overview of the presenters' research, including the findings.
- Gap(s)/problems/phenomena identified, specifically:
  - How gaps were identified.
  - How decisions were made to initiate the studies.
  - Who was involved in the preliminary phases of the studies and how they were involved.
  - The importance of engagement and buy-in among staff to facilitate implementation post-study.
- How the studies' findings were or will be implemented (challenges, facilitators, barriers).
- What the presenters learned from this process and what they would do differently next time.

The learning objectives of the workshop are to:

1. come away with an appreciation of the process to transition basic research to the clinic.
2. learn how to identify goals, audience, expertise, strategies and resources for translating basic research.
3. understand the importance of engaging patients, communicates, policy makers and other stakeholders early in the process and how to include them as part of the team.





**Jason Acker** is the senior development scientist with the Canadian Blood Services' (CBS) Centre for Innovation and a professor in the Department of Laboratory Medicine and Pathology at the University of Alberta. His research focuses on understanding the response of cells and tissues to ex vivo storage and the development of methods for their preservation and use as therapeutic products. Acker's blood services laboratory is responsible for developing scientific and technical evidence to support innovative changes in blood product manufacturing, storage and utilization at CBS. Through the CBS Centre for Innovation, Acker leads efforts to assess new technology, products and processes that can improve the efficiency, quality and safety of blood products in Canada.

**Oana Caluseriu** is an associate professor and clinician scientist in the Department of Medical Genetics at the University of Alberta. Her clinical practice and lab research focus on identifying rare phenotypes and their molecular basis. A special area of interest is the study of the molecular basis of disorders in inbred populations in Alberta. Current projects are focused around the development of translational studies from a genetic perspective using a variety of genomic methodologies combining the use of molecular techniques and bioinformatics in the area of new gene and disorder characterization.



**Jason Dyck** is a professor in the Department of Pediatrics, a Canada Research Chair in Molecular Medicine, and director of the Cardiovascular Research Centre at the University of Alberta. Dyck has broad areas of research that are linked by his interest in energy metabolism and related molecular signaling mechanisms. He has published over 200 peer-reviewed papers in his career and is currently funded by the Canadian Institutes of Health Research, Diabetes Canada, the Heart and Stroke Foundation and Alberta Innovates Health Solutions.



## WORKSHOP #3

8 – 8:55 a.m.

Chairman Room

### **STORYTELLING: MORE THAN A BEDTIME RITUAL**

*How we merge patient stories/narratives with best available research evidence to create knowledge translation tools.*

**Lisa Hartling and Shannon Scott**

Storytelling can be a very useful tool for translating complex research information by contextualizing research results within lived experience. Stories may be effective in helping the intended audience understand and retain information because of their emotional appeal and ability to generate meaningful connections. Various strategies have been developed to create stories that will produce an emotional experience capable of influencing readers' or listeners' actions.

Our presenters have a long history of developing knowledge translation (KT) tools that merge research with stories. Their process involves gathering stories, synthesizing the evidence, and then merging the stories with evidence. They work very closely with the intended audience of the KT tools to develop, test and refine the tools according to the audience's needs. The presenters have experience with a variety of media such as ebooks, interactive infographics and whiteboard animation videos. They will show examples, feedback they have received and considerations for selecting the right media for the intended purpose and audience. The process they follow can be applied to a variety of clinical topics and different populations.

The learning objectives of this workshop are to learn how to:

1. develop a model for creating KT tools that merge research and stories/narrative/experience.
2. work with the intended audience(s) to create KT tools that are meaningful and responsive to their needs.
3. anticipate and address some of the challenges in creating KT tools that merge research and story.



**Lisa Hartling** is a professor in the Department of Pediatrics at the University of Alberta, a Canada Research Chair in Knowledge Synthesis and Translation and a Distinguished Researcher within the Stollery Science Lab. She holds several leadership positions including director of the Alberta Research Centre for Health Evidence, co-director of Cochrane Child Health and TREKK, a national centre of excellence for knowledge mobilization in pediatric emergency care. The focus of Hartling's work is to gather and synthesize the best available scientific evidence to help support decision-making by healthcare providers, administrators and patients and their families. She is involved in knowledge translation initiatives to disseminate high quality research to inform decisions in health.



**Shannon Scott** is a professor in the Faculty of Nursing at the University of Alberta, Canada Research Chair in Knowledge Translation in Children's Health and a Distinguished Researcher within the Stollery Science Lab. Her research program ECHO (translating Evidence in Child Health to enhance Outcomes) aims to improve the health outcomes of children in Alberta and Canada through the application of the best research evidence. She leads an innovative program of research that develops art and narrative-based tools for parents with acutely ill children. Scott is also a co-director of TREKK (Translating Emergency Knowledge for Kids), a national centre of excellence funded initiative that is changing children's emergency care across Canada.

# TRAINEE POSTER PRESENTATIONS – MORNING

9 - 10 a.m.

Ballroom

#	Presenter	Supervisor	Abstract title
<b>KNOWLEDGE TRANSLATION AND DECISION-MAKING</b>			
97	<b>Claudia Maki</b>	Samina Ali	Characterizing pain in children with acute gastroenteritis who present to the emergency department
98	<b>Lisa Knisley</b>	Shannon Scott	Improving pediatric emergency care across Canada: The power of networking
99	<b>Malema Afzalzada-Ahrari</b>	Lisa Hartling	The use of opioids in children's health and its connection to the opioid epidemic: A systematic review
<b>LIFELONG WOMEN'S HEALTH</b>			
100	<b>Bethany Wollin</b>	Caroline Richard	Female Wistar rats exhibit a better T-cell response than male rats
101	<b>Braden Chow</b>	Geetha Menon	Determination of radiobiological parameter values used in cervical cancer brachytherapy through in vitro experimentation
102	<b>Christine Ha</b>	Shanon Phelan	More than just kegels: An alternate lens for maternal pelvic health
103	<b>Marina Bianchi Lemieszek</b>	Lynne-Marie Postovit	The function of the epithelial splicing regulatory protein 1 (ESRP1) in Luminal A breast cancer cell lines
104	<b>Nicholas Li</b>	Amy Kirkham	Pulmonary consequences of anthracycline and trastuzumab treatment for early-stage breast cancer
105	<b>Nitya Khetarpal</b>	Sue Ross	Exploring effective engagement strategies used to recruit Indigenous participants to community-based research
<b>PREGNANCY AND DEVELOPMENTAL TRAJECTORIES</b>			
106	<b>Britt Voaklander</b>	Maria Ospina	Diabetes in pregnancy among Métis women: A retrospective cohort study
107	<b>Daphne Cheung</b>	Sarah Troster	Addressing educational needs around pregnancy and reproductive health in women with rheumatic disease
108	<b>Iqwak Bedi</b>	Denise G. Hemmings	Tumor necrosis factor-alpha (TNF- $\alpha$ ) induces vasoconstriction in uterine arteries during pregnancy when nitric oxide (NO) is reduced
109	<b>Jia Hang Li</b>	Stephane Bourque	The effects of perinatal iron deficiency on neonatal cardiac development
110	<b>Mazhar Pasha</b>	Sandra Davidge	The potential role of endoplasmic reticulum stress in vascular dysfunction in a rat model for preeclampsia
111	<b>Molly Henneberry</b>	Craig Steinback	Blood pressure control in women with singleton and twin pregnancies
112	<b>Nayara Antunes Lopes</b>	David Olson	Social isolation exposure in rats and the effects of single and multiple hits to inflammatory and stress marker profiles
113	<b>Oluwakemi Amodu</b>	Bukola Salami	Access to reproductive healthcare for internally displaced women in Nigeria: A critical ethnography study
114	<b>Omolara Sanni</b>	Maria Ospina	Obstetric outcomes among the Métis in Alberta
115	<b>Richard Mah</b>	Stephane Bourque	Assessment of apoptosis, autophagy, and cellular senescence in developing kidneys exposed to perinatal iron deficiency



#	Presenter	Supervisor	Abstract title
116	<b>Saba Saadat</b>	Meghan Riddell	Optimization of first trimester trophoblast isolation for the development of physiologically oriented placental organoids
117	<b>Vidhi Desai</b>	Maria Ospina	Effectiveness of prebiotic, probiotic, and synbiotic supplementation in pregnancy to reduce risk of maternal mental health disorders in the perinatal period: A systematic review
118	<b>Yuliya Fakhr</b>	Denise Hemmings	Investigating sphingosine 1-phosphate kinase 1 (SK1) as a mediator of tumour necrosis factor alpha (TNF-a) effects on placental barrier formation

### CHILDREN'S HEALTH AND WELL-BEING: CANCER

119	<b>Ghazal Babolmorad</b>	Amit Bhavsar	TLR4 inhibition mitigates cisplatin-induced ototoxicity
120	<b>Jessica Bennett</b>	Roseline Godbout	Understanding the role of DDX1 expression in the resistance of neuroblastoma cell lines to treatment
121	<b>Takaaki Landry</b>	Sujata Persad	Validation of a role for active beta-catenin (ABC) in promoting metastatic phenotype in osteosarcoma

### CHILDREN'S HEALTH AND WELL-BEING: CARDIAC HEALTH

122	<b>Amanda Cao</b>	Lisa Hornberger	Impact of adverse early life exposures (AELEs) on surgical outcomes for congenital heart disease (CHD)
123	<b>Angela Han</b>	Andrew Mackie	Just TRAC It! Transitioning responsibly to adult care using smart phone technology
124	<b>Gayathri Wewala</b>	Lisa Hornberger	Evidence of early cardiovascular programming in 9-16 year old children of Type 1 diabetic mothers
125	<b>Mirza Beigh</b>	Luke Eckersley	A novel measure of dyssynchrony outperforms traditional measures during RV pacing in pediatric patients
126	<b>Sachie Shigemitsu</b>	Timothy Colen	Tricuspid valve prolapse in children with hypoplastic left heart syndrome patients requiring tricuspid valve repair is due to leaflet mal-adaptation, not sub-valve changes
127	<b>Simran Pherwani</b>	Gary Lopaschuk	Maturation of fatty acid oxidation in the newborn heart
128	<b>Thotsapon Trakulmung-kichkarn</b>	Angela McBrien	Clinical presentation, genetic etiologies and outcomes associated with fetal cardiomyopathies
129	<b>Yozo Teramachi</b>	Lisa Hornberger	Left ventricular dysfunction in neonatal Ebstein's anomaly and tricuspid valve dysplasia

### CHILDREN'S HEALTH AND WELL-BEING: CRITICAL CARE

130	<b>Deandra Luong</b>	Georg Schmölzer	Analysis of healthcare providers' visual attention during neonatal resuscitation using eye tracking
131	<b>Emily Zehnder</b>	Georg Schmölzer	Subjective workload assessment of health care providers during neonatal resuscitation
132	<b>Sadie Deschenes</b>	Diane Kynyk	Developing an educational intervention on moral distress for PICU nurses
133	<b>Siddhi Patel</b>	Georg Schmölzer	Chest compression with sustained inflation versus with asynchronous ventilation during cardiopulmonary resuscitation in asphyxiated pediatric piglets - a randomized animal trial



**#      Presenter      Supervisor      Abstract title**

**CHILDREN’S HEALTH AND WELL-BEING: DEVELOPMENT**

134	<b>Abdulsalam Baqays</b>	Hamdy El-Hakim	A novel parent-reported outcome tool to assess swallowing dysfunction in otherwise healthy infants and toddlers
135	<b>Alleson Mason</b>	Bukola Salami	Barriers and facilitators to immigrant families' access to healthcare for their children in Edmonton, Alberta
136	<b>Allison Mella</b>	Lawrence Richer	Mobile app for symptom management in postural orthostatic tachycardia syndrome (POTS): Benefits and limitations
137	<b>Andrea Pajkic</b>	Jackie Whittaker	Sport participation and physical activity following a youth sport-related knee injury
138	<b>Babak Afsharipour</b>	Monica Gorassini	Using grid electrodes to isolate motoneuron activity in children with Cerebral Palsy
139	<b>Irina Simin</b>	Debra Andrews	Developing skills for developmental disabilities: How does clinical experience as an adjunct to current preclinical curriculum improve student confidence
140	<b>Josh Kennedy</b>	Jackie Whittaker	Scared to move: The influence of kinesiphobia on physical activity after a youth sport-related knee injury
141	<b>Kassi Boyd</b>	Shanon Phelan	Engaging dis/abled children in critical qualitative research: Rights, dignity and ‘voice(s)’
142	<b>Lu’an Fan</b>	Sandy Thompson-Hodgetts	The effectiveness of preventive disclosure in influencing peer engagement for the child with ASD in summer camps: A within case study
143	<b>Sabrina Lopresti</b>	Noreen Willows	IYMP principal investigator perspectives on essential characteristics of multi-sited Community-University Partnership with Indigenous communities
144	<b>Sarah Raza</b>	Lonnie Zwaigenbaum	The role of emotion regulation in the emergence of Autism Spectrum Disorder
145	<b>Simran Singh</b>	Olga Petrovskaya	"I love it, but more clinics should use it!": Parents' experiences with MyChart electronic patient portal in the Stollery respirology clinic
146	<b>Thanh-Tu Pham</b>	Lawrence H. Le	Correlating ultrasonic soft tissue-bone reflection coefficients with curve severity in adolescent idiopathic Scoliosis: A preliminary study

**CHILDREN’S HEALTH AND WELL-BEING: GENETICS**

147	<b>Adrienne Watson</b>	Anastassia Voronova	Understanding the role of fractalkine signalling in neural and oligodendrocyte precursor cells in the developing brain
148	<b>Asra Almubarak</b>	Fred Berry	Foxc1 & Foxc2 are required for the development of the vertebral column & intervertebral discs
149	<b>Jens Herzog</b>	Andrew Waskeiwicz	TSC2 required for mTOR regulation in the developing upper eye
150	<b>Kasia Dzierlega</b>	Toshifumi Yokota	Increased expression of water channels aquaporin 1 and 5 in mouse and dog models of Duchenne muscular dystrophy
151	<b>Kevin Yoon</b>	Andrew Waskiewicz	A key eye patterning gene, <i>vax2</i> , affects the closure of superior ocular sulcus, a novel developmental feature of eye development
152	<b>Matthea Sanderson</b>	Rachel Wevrick	Elucidating the function of MAGEL2 through its protein-protein interaction network defined by proximity labeling (BioID) and mass spectrometry: A novel role RNA processing



#	Presenter	Supervisor	Abstract title
153	<b>Renee Dicipulo</b>	Andrew Waskiewicz	Evidence for crosstalk between Taz and Wnt signaling in brain ventricle morphogenesis
154	<b>Rohini Roy Roshmi</b>	Toshifumi Yokota	Development of novel genome editing therapy for Duchenne muscular dystrophy
155	<b>Sabrina Fox</b>	Andrew Waskiewicz	Bmp3 regulates ocular fissure closure via TFG- $\beta$ signalling

### CHILDREN'S HEALTH AND WELL-BEING: INFECTION, INFLAMMATION, IMMUNOLOGY

156	<b>Sosa Carla</b>	Chan Catherine	Antibiotic administration at early stages of life affects pancreatic islet morphology and function
-----	-------------------	----------------	----------------------------------------------------------------------------------------------------

### CHILDREN'S HEALTH AND WELL-BEING: NUTRITION AND GASTROINTESTINAL HEALTH

157	<b>Annette Sanchez Enkerlin</b>	Robin Clugston	Transfer of vitamin A into breast milk: Dissecting the molecular retinoid pathway
158	<b>Camila Orsso</b>	Andrea Haqq	Variations in body composition in children with similar degrees of obesity based on body mass index: Preliminary results from the Metabolic Load-Capacity study
159	<b>Qiming Tan</b>	Andrea Haqq	An atypical case of Prader-Willi syndrome caused by a microdeletion at 15q11.2 that includes the SNORD116 gene cluster
160	<b>Sarah Morin</b>	Linda Chui	Characterizing Clostridioides difficile found in paediatric populations

### CHILDREN'S HEALTH AND WELL-BEING: RESPIRATORY HEALTH

161	<b>Aaron van der Leek</b>	Anita Kozyrkyj	Fecal immunoglobulin A and asthma/wheeze in the first 5 years of life in the CHILD cohort
162	<b>Alexander Toohey</b>	Gregory Funk	Intracellular adenosine metabolism is important for maintaining baseline inspiratory rhythm in the preBötzing complex of neonate mice in vitro
163	<b>Dalia Elawad</b>	Anne Hicks	Pseudomonas in pediatric tracheostomy patients: Incidence, prevalence and risk factors
164	<b>Melissa Bird</b>	Kate Storey	Sleeping soundly: Understanding the translation of sleep promotion at school to sleep behaviour at home
165	<b>Samantha Louie-Poon</b>	Shannon Scott	Comparing the usability evaluation results of three parental tools for bronchiolitis

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #1

10:15 – 11:45 a.m.

Turner Valley Room

### Knowledge translation and decision-making

#	Name	Position	Supervisor	Abstract title
1	<b>Martha Ruiz</b>	Masters student	Ravi Bhargava	Doppler ultrasound values associated with graft status in children after liver transplantation: A systematic review and meta-analysis
2	<b>Chelsea Durber</b>	PhD student	Rebecca Gokiert	A student's experience participating in a multi-stakeholder, intesectional evaluation
3	<b>Heather Morris</b>	PhD student	Elaine Hyshka	Engaging with bereaved parent advocates on drug policy reform: Reflections on a research and knowledge translation partnership
4	<b>Airlie Palichuk</b>	Undergraduate student	Shannon MacDonald	Immunization coverage of immunocompromised children: A scoping review
5	<b>Neelam Punjani</b>	PhD student	Elisavet Papathanasoglou	Scoping review of the association between adolescents developing sexuality and its impact on psychological: Evidence from lower and middle income countries
6	<b>Nicol Patricny</b>	PhD student	Jacqueline Pei	A systematic review of promotive and protective factors against violence and delinquency in youth and emerging adults

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).





## ORAL PRESENTATION #2

10:15 – 11:45 a.m.

Leduc Room

### Pregnancy and developmental trajectories

#	Name	Position	Supervisor	Abstract title
7	<b>Esha Ganguly</b>	PhD student	Sandra Davidge	Effects of placenta-targeted treatment with nanoparticle-encapsulated MitoQ (nMitoQ) on fetal cardiomyocyte development in a rat model of prenatal hypoxia
8	<b>Janlyn Hoffman</b>	Undergraduate student	Meghan Riddell	Apical polarization of atypical PKC- $\zeta$ is absent in early first trimester placental epithelium
9	<b>Mon Tun</b>	PhD student	Piush Mandhane	Prediction of risk of cesarean section in the Canadian Healthy Infant Longitudinal Development (CHILD) birth cohort
10	<b>Nataliia Hula</b>	PhD student	Sandra Davidge	The effect of a placenta-targeted treatment with a mitochondrial antioxidant (nMitoQ) on later-life cardiac function of male and female offspring exposed to hypoxia in utero
11	<b>Rachel Skow</b>	PhD student	Margie Davenport	The influence of an aerobic exercise intervention on muscle sympathetic nervous system regulation of blood pressure in pregnancy
12	<b>Rakhbeer Boparai</b>	Undergraduate student	Margie Davenport	The effects of moderate-intensity exercise on endothelial function during pregnancy

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #3

10:15 – 11:45 a.m.

Consulate Room

### Children's health and well-being: Respiratory health

#	Name	Position	Supervisor	Abstract title
13	<b>Charmaine van Eeden</b>	Postdoctoral fellow	Piush Mandhane	Increased behavioral problems at 5 years of age are associated with sleep disordered breathing phenotypes, based on parent-reported symptoms: The CHILD study
14	<b>Daniela Roth</b>	Masters student	Daniel Graf	Connecting altered suture development to midfacial hypoplasia
15	<b>Jesus Serrano-Lomelin</b>	Postdoctoral fellow	Maria Ospina	Joint effects of adverse childhood experiences on adult onset Asthma
16	<b>Peter Anto Johnson</b>	Masters student	Georg Schmölder	A heartbeat away from better lifesaving: Novel smartphone technology to improve heart rate assessment during neonatal resuscitation at birth
17	<b>Pranidhi Baddam</b>	PhD student	Daniel Graf	Is the cartilage responsible for nasal septum deviation?
18	<b>Robert Reklow</b>	PhD student	Gregory Funk	Postnatal developmental changes in the effects of ATP, adenosine and adenosine clearance mechanisms on activity of the preBötzing complex inspiratory rhythm generating network

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #4

10:15 – 11:45 a.m.

Chancellor Room

### Children's health and well-being: Development

#	Name	Position	Supervisor	Abstract title
19	<b>Jason Wong</b>	Masters student	Edmond Lou	Feasibility of using machine learning to aid clinicians to predict curve progression past moderate severity for children with adolescent idiopathic scoliosis
20	<b>Andrew Chan</b>	PhD student	Edmond Lou	Accuracy of screw placement in 3D-ultrasound (3DUS) based spinal navigation in adolescent idiopathic scoliosis phantom vertebrae
21	<b>Caitlin Hurd</b>	PhD student	Jaynie Yang	Early, intensive lower extremity training enhances gross motor function in children with perinatal stroke: Results of a randomized controlled trial
22	<b>Chris Holt</b>	Masters student	Jackie Whittaker	Sticking to it: A scoping review of adherence to exercise therapy interventions in children and adolescents with musculoskeletal conditions
23	<b>Abrar Alam</b>	Undergraduate student	Jason Dyck	Resveratrol attenuates doxorubicin-induced injury and later onset hypertension-induced cardiomyopathy through the inhibition of NLRP3 Inflammasome signalling
24	<b>Megan Beggs</b>	PhD student	Todd Alexander	Claudin-2 is necessary for increased intestinal calcium permeability and optimal bone mineralization early in life

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #5

10:15 – 11:45 a.m.

Chairman Room

### Lifelong women's health

#	Name	Position	Supervisor	Abstract title
25	<b>Hedieh Keshavarz</b>	PhD student	John Seubert	Genetic deletion of soluble epoxide hydrolase preserves cardiac function in aged female mice
26	<b>Lena Bilyk</b>	Postdoctoral fellow	Lynne Postovit	Embryonic protein nodal as a potential marker of drug resistance in ovarian cancer
27	<b>Lockhart Jamieson</b>	PhD student	John Seubert	Pharmacological or genetic inhibition of soluble epoxide hydrolase demonstrates cardioprotection following myocardial infarction in aged female mice
28	<b>Olivia Weaver</b>	Undergraduate student	Donna Vine	Fish oil and metformin interventions to target cardiometabolic risk in high-risk women with polycystic ovarian syndrome
29	<b>Victoria Meah</b>	Postdoctoral fellow	Margie Davenport	Cardiac responses to incremental resistance exercise in pregnancy: Resistance Exercise in Pregnancy Study (REPS)
30	<b>Vrajesh Pandya</b>	Postdoctoral fellow	Ing Swie Goping	BIK drives an aggressive breast cancer phenotype through sublethal apoptosis and predicts poor prognosis of ER-positive breast cancer

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).

# KEYNOTE PRESENTATION

12:30 – 12:45 p.m. **The Power of Partnership** – *Ballroom*

**Mike House**, president and CEO, Stollery Children’s Hospital Foundation  
**Andrew Otway**, president and CEO, Royal Alexandra Hospital Foundation

## Bonnie Stevens

Innovative individual and organizational implementation strategies for changing healthcare provider pain practices and child health outcomes

12:45 – 1:40 p.m.  
*Ballroom*

Hospitalized children receive between 7–16 tissue-damaging painful procedures daily. In many instances there is no pain-relieving intervention associated with these procedures. The consequences of repeated pain, if unrelieved, are now known to be significant in terms of neurological and behavioural development of the child. Therefore, it is essential that health care providers maximize efforts to prevent or minimize pain from procedures. Researchers are accumulating an ever-expanding body of evidence to be used in clinical practice; however, the gap between what we know and what we do is wide, leaving vulnerable populations of infants and children with suboptimal pain relief. Implementation scientists are now researching the effectiveness of multi-faceted strategies to improve the implementation and dissemination of new evidence. Strategies target both individual health care providers (e.g. online pediatric pain curricula) and organizations (e.g. e-health resources and integrative approaches). The influence of organizational context, or work environment,

and how it affects both the effectiveness of the intervention and its implementation are also being studied. Partnered responsibility between individuals and organizations will ultimately benefit the child and family and improve health care outcomes.



**Bonnie Stevens** is a professor at the Lawrence S. Bloomberg Faculty of Nursing and Faculties of Medicine and Dentistry at the University of Toronto. She is also associate chief of nursing research

and a senior scientist in the Child Health Evaluative Sciences program at The Hospital for Sick Children (SickKids). Stevens is director of the University of Toronto Centre for the Study of Pain, co-director of the Pain Centre at SickKids and chair of the Certification Committee for ChildKind International. She is a fellow of both the Canadian Academy of Health Sciences and the American Academy of Nursing.

She has received multiple prestigious awards and has published over 300 papers and abstracts, 200 invited lectures and is a co-editor of the *Oxford Textbook of Pediatric Pain* and *Pain in Neonates and Infants*.

Stevens held the inaugural Signy Hildur Eaton Chair in Pediatric Nursing Research at SickKids, the first pediatric nursing research chair based in Canada until 2015. She was also the first nurse scientist to be awarded the CIHR KT Prize in 2014.

# TRAINEE POSTER PRESENTATIONS – AFTERNOON

1:45 – 2:45 p.m.

Ballroom

#	Presenter	Supervisor	Abstract title
<b>KNOWLEDGE TRANSLATION AND DECISION-MAKING</b>			
166	<b>Alyson Campbell</b>	Shannon Scott	Our experience conducting an environmental scan (ES) on knowledge translation (KT) tools for pediatric concussion
167	<b>Chentel Cunningham</b>	Shannon Scott	Using patient engagement to evaluate the usability of two pediatric fever tools
168	<b>Maryam Elyasi</b>	Maryam Amin	Strategies to enhance patients' adherence to orthodontic treatments: A systematic review
169	<b>Osnat Wine</b>	Alvaro Osornio Vargas	What does it take to implement and shape integrated knowledge translation in an interdisciplinary research project
170	<b>Rachel Flynn</b>	Scott Shannon	Developing rigorous evaluation approaches for the sustainability of child health interventions: Findings from an integrative review
<b>LIFELONG WOMEN'S HEALTH</b>			
171	<b>Alaa Zare</b>	Lynne Postovit	RIPK2 role in promoting inflammatory breast cancer tumorigenesis
172	<b>Amanda O'Reilly</b>	Erin Kelly	Effectiveness of pelvic floor muscle injections for chronic pelvic pain: A systematic review and narrative analysis
173	<b>Amynah Mevawala</b>	Solina Richter	A transition theory perspective of menopause in a developing context
174	<b>Joren Manz</b>	Momoe Hyakutake	Cannabis use among women with chronic pelvic pain
175	<b>Katherine Babyn</b>	Nese Yuksel	Exploring cannabis use in women's health: A scoping review
176	<b>Laura Lee</b>	Lynne Postovit	Characterization of epigenetic and transcriptomic alterations in hypoxia induced breast cancer cell plasticity
177	<b>Prachi Shah</b>	Beate Sydora	The Walk-and-Talk app: Physical and mental health benefits of a social app for menopausal women
178	<b>Rashmi Panigrahi</b>	Mark Glover	INSIGHT into the nucleosomal dynamics - the first step in DNA damage response signaling
179	<b>Won-Shik (Daniel) Choi</b>	Roseline Godbout	Investigating retinoic acid resistance in HER2-enriched breast cancer: The role of MYC
<b>PREGNANCY AND DEVELOPMENTAL TRAJECTORIES</b>			
180	<b>Alexa Thompson</b>	Joel Dacks	Candidate gene discovery for pregnancy-associated malaria using RNA sequencing
181	<b>Amy Wooldridge</b>	Sandra Davidge	Effects of prenatal hypoxia exposure on pregnancy outcomes in offspring later in life
182	<b>Jasmine Nguyen</b>	Meghan Riddell	Vibratome sectioning of term placenta for analysis of epithelial cell polarity in the intact syncytium



#	Presenter	Supervisor	Abstract title
183	<b>Jimmy Kang</b>	Lisa Hornberger	Impact of biological sex on the surgical outcomes for congenital heart disease patients with adverse early life events
184	<b>Kendyl Stretch</b>	Rhonda Bell	Women in Alberta are surpassing iron recommendations during pregnancy
185	<b>Kirsten Webster</b>	Denise Hemmings	Sphingosine 1-phosphate as a mediator of tumour necrosis factor- $\alpha$ signalling in placental development
186	<b>Ronan Noble</b>	Stephane Bourque	Perinatal iron deficiency leads to systolic dysfunction in neonatal rat hearts
187	<b>Sapir Fellus</b>	Padma Kaul	Socioeconomic determinants of preeclampsia in Alberta
188	<b>Sophie Palmer</b>	Sue Chandra	Development of a clinical decision support tool and order set for stillbirth and second-trimester fetal death using knowledge translation principles
189	<b>Sumaiyah Shaha</b>	Stephanie Yanow	Developing a physiological assay to measure Plasmodium falciparum infected erythrocyte adhesion to syncytiotrophoblast in vitro

### CHILDREN'S HEALTH AND WELL-BEING: CANCER

190	<b>Asna Latif</b>	Amit Bhavsar	Investigating mechanisms of chemotherapy-induced permanent hearing loss in childhood cancer patients
191	<b>Chan Kim</b>	James Hammond	Effect of tyrosine kinase inhibitors on 6-mercaptopurine cytotoxicity: Interactions with equilibrative nucleobase transporter 1
192	<b>Mahsa Mohseni</b>	Joseph M Brandwein	Combination of siRNA and chemotherapeutic agents in acute leukemic cells
193	<b>Nicholas Ruel</b>	James Hammond	SLC43A3 as a biomarker for 6-mercaptopurine cytotoxicity in leukemia cells

### CHILDREN'S HEALTH AND WELL-BEING: CARDIAC HEALTH

194	<b>Amanda Greenwell</b>	John Ussher	Cardiac glucose oxidation rates are impaired and a possible pharmacological target for mitigating heart failure in Barth syndrome
195	<b>Amanpreet Kaur</b>	Luke Eckersley	Trends in (2003-2018) and barriers to the prenatal detection of congenital heart disease in Alberta
196	<b>Attila Ahmad</b>	Luke Eckersley	Validation of knowledge-based cardiac chamber volumes against 3D echo and MRI datasets
197	<b>Danielle Harake</b>	Nee Khoo	Does ventricular dyssynchrony in pre-bidirectional cavopulmonary anastomosis palliation stage children with hypoplastic left heart syndrome predict morbidity and mortality?
198	<b>Lily Lin</b>	Nee Khoo	Tricuspid valve responds to chronic right ventricular pressure and volume load stress by rapid leaflet expansion: 3DE study in a novel recovery piglet model
199	<b>Yomi Olugbuyi</b>	Lisa Hornberger	Does disparities in proximity to care and socioeconomic class influence congenital heart disease (CHD) outcome in Canada?



# Presenter Supervisor Abstract title

### CHILDREN'S HEALTH AND WELL-BEING: CRITICAL CARE

200	<b>Avneet Mangat</b>	Georg Schmörlzer	Does a respiratory function monitor during positive pressure ventilation in the delivery room reduce infant mortality? A systematic review and meta-analysis
201	<b>Jannatul Mustofa</b>	Georg Schmörlzer	Development of non-contact video-based heart rate monitoring in newborn infants
202	<b>Simran Ghoman</b>	Georg Schmörlzer	Game-based summative assessment of neonatal resuscitation competence using the RETAIN board game

### CHILDREN'S HEALTH AND WELL-BEING: DEVELOPMENT

203	<b>Chunpeng Nie</b>	Daniel Graf	Metabolic dysregulation underlies early-onset osteoarthritis in the TMJ
204	<b>Claudine Thereza-Bussolaro</b>	Carlos Flores-Mir	Nasal structure alterations and high risk of OSA among children: An exploratory study
205	<b>Guillaume Leclair</b>	Joseph Attallah	Neurodevelopmental outcomes after neonatal surgical intervention for cyanotic tetralogy of Fallot and other lesions with right ventricular outflow tract obstruction
206	<b>Jackie Chan</b>	Brian Chiu	Pediatric sarcoidosis: A clinicopathological review with emphasis on early-onset and high-risk sarcoidosis and diagnostic challenges
207	<b>Kennedi Young</b>	Todd Alexander	The loss of claudin-2 results in upregulation of the transcellular pathway of calcium reabsorption from the kidney and absorption from the intestines in pre-weaned mice
208	<b>Kim-Cuong Nguyen</b>	Lawrence Le	Registration of ultrasound and CBCT images for enhancing periodontal tissues visualization
209	<b>Linda Truong</b>	Jackie Whittaker	Growth is in the struggle: Exploring the perspectives of youth 1-2 years following a sport-related anterior cruciate ligament injury - an interpretive description study
210	<b>Pegah Firouzeh</b>	Lesley Pritchard	Evaluation of the effects of ankle-foot orthoses on gross motor function, physical activity and participation of young children with cerebral palsy: A mixed-methods study protocol
211	<b>Sarah Johnson</b>	Tehseen Ladha	Identification of health needs in pediatric immigrants and refugees presenting for screening
212	<b>Tasmia Hai</b>	Martin Mrazik	Executive functions in children with ADHD: A follow-up study using both performance-based task and rating scales
213	<b>Tehzeeb Sayed</b>	Edmond Lou	Intra- and inter-rater reliabilities and accuracy of kyphotic angle measurements on ultrasound images for children with adolescent idiopathic scoliosis - a pilot study
214	<b>Wasim Labban</b>	Jackie Whittaker	Physical activity in adolescents with patellofemoral pain: A scoping review

### CHILDREN'S HEALTH AND WELL-BEING: GENETICS

215	<b>An Bui</b>	Francois Bolduc	Identifying genetic modifiers of Fragile X syndrome in a drosophila model for repetitive behaviors
216	<b>Devyn Godziuk</b>	Daniel Graf	The role of KBG syndrome gene, Ankrd11, in craniofacial development





#	Presenter	Supervisor	Abstract title
217	<b>Kara Goodkey</b>	Anastassia Voronova	Exploring the effect of fractalkine on microglia and oligodendrocyte progenitors in the developing brain
218	<b>Lu Kun Chen</b>	Ordan Lehmann	Role of FOXC1 in pediatric disease and planar cell polarity
219	<b>Tejal Aslesh</b>	Toshifumi Yokota	Systemic delivery of a novel peptide-conjugated morpholino oligomer DG9-PMO improves symptoms in a mouse model of spinal muscular atrophy
220	<b>Yana Kibalnyk</b>	Anastassia Voronova	Studying cardiovascular defects in KBG syndrome during development
221	<b>Yiqing Huang</b>	Toshifumi Yokota	Developing a minimized antisense oligonucleotide cocktail from RNA and protein perspectives to skip exons 45-55 in Duchenne muscular dystrophy
222	<b>Yutong (Jessica) Li</b>	Anastassia Voronova	Regulation of oligodendrocyte genesis in the developing brain by hepatoma derived growth factor (HDGF)

### CHILDREN'S HEALTH AND WELL-BEING: INFECTION, INFLAMMATION, IMMUNOLOGY

223	<b>Bipasha Choudhury</b>	Michael Hawkes	Intestinal epithelial injury is associated with systemic inflammation in vertically HIV-1 infected children
224	<b>Bushra Anjum</b>	Lori West	Differences in ABO antibody production in female vs. male mice
225	<b>Estelle Morin</b>	Jessica Foulds	Management and outcome of febrile neutropenia in admitted presumed immunocompetent patients with suspected viral illness

### CHILDREN'S HEALTH AND WELL-BEING: NUTRITION AND GASTROINTESTINAL HEALTH

226	<b>Alison Thompson</b>	Shannon Scott	A systematic review of parents' experiences and information needs related to pediatric functional constipation
227	<b>Andrea Eaton</b>	Geoff Ball	Determining stakeholders' priorities for child and family research - progress to date
228	<b>Maryam Kebbe</b>	Geoff Ball	Preliminary evaluation of Conversation Cards for Adolescents©: A pilot randomized controlled trial

### CHILDREN'S HEALTH AND WELL-BEING: RESPIRATORY HEALTH

229	<b>Hyelin Sung</b>	Shannon Scott	Usability of infographics for UTI and bronchiolitis
230	<b>Jashan Saini</b>	Silvia Pagliardini	Modulation of respiratory rhythms via periaqueductal gray optostimulation
231	<b>Jasmeen Saini</b>	Silvia Pagliardini	Ventilatory recovery by etonogestrel in central chemoreflex-impaired female rats
232	<b>Vivian Biancardi</b>	Gregory Funk	Identification of an ion channel in the inspiratory rhythm generator that is potentiated by ATP and counteracts the life-threatening depression of breathing during hypoxia

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #6

3 – 4:30 p.m.

Turner Valley Room

### Children's health and well-being: Nutrition and gastrointestinal health

#	Name	Position	Supervisor	Abstract title
31	<b>Alexa Ferdinands</b>	PhD student	Kim Raine	How do young people encounter body size talk on YouTube?
32	<b>Carmen Tessier</b>	Masters student	Anita Kozyrskyj	Maternal prenatal depression is associated with infant gut colonization of <i>Clostridium difficile</i> at 3 months of age
33	<b>Chinwe Vivien Obiakor</b>	Masters student	Anita Kozyrskyj	The association between early life antimicrobial exposure and <i>C. difficile</i> colonization in infants
34	<b>Inderdeep Mander</b>	Undergraduate student	Eytan Wine	Finding the relationship between fiber and gut diseases in children
35	<b>Ngoc Khanh Vu</b>	Postdoctoral fellow	Anita Kozyrskyj	Beyond caesarean birth: Impact of prolonged labour on infant gut microbiota
36	<b>Stephanie Dijk</b>	Masters student	Eytan Wine	Microbial & metabolic changes with infliximab therapy in paediatric Crohn disease

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #7

3 – 4:30 p.m.

Leduc Room

### Pregnancy and developmental trajectories

#	Name	Position	Supervisor	Abstract title
37	<b>Abbey Pagee</b>	Undergraduate student	Sandra Davidge	Role of LOX-1 in postpartum vascular dysfunction in a mouse model of preeclampsia
38	<b>Claudia Holody</b>	Masters student	Stephane Bourque	Sex-specific changes in neonatal cardiac mitochondrial function in response to perinatal iron deficiency
39	<b>Jenna Evanchuk</b>	Undergraduate student	Catherine J. Field	A mother's iron stores during second trimester predict infant iron stores at 3 months of age
40	<b>Miranda Kimber</b>	Masters student	Victoria Meah	Knowledge translation & social media: Twitter data analysis of the 2019 SOGC/CSEP guideline for physical activity throughout pregnancy
41	<b>Nikki Mitchell</b>	Undergraduate student	Georg Schmölder	Incidence and risk factors for hypoglycemia during fetal-to-neonatal transition in premature infants
42	<b>Tamara Sáez</b>	Postdoctoral fellow	Sandra Davidge	Vascular interaction between lectin-like oxidized LDL receptor 1 (LOX-1) and angiotensin II receptor 1 (AT1) in a mouse model of gestational vascular dysfunction

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #8

3 – 4:30 p.m.  
Consulate Room

### Lifelong women's health

#	Name	Position	Supervisor	Abstract title
43	Devon Heath	Undergraduate student	Dana Hayward	What's in a face? Individual differences in social cognition of women with eating disorders
44	Hamid Maadi	PhD student	Zhixiang Wang	Trastuzumab induce cell cycle arrest in HER2-positive breast cancers with no inhibitory effects on HER receptors' phosphorylation and dimerization
45	Huachen Chen	PhD student	Yangxin Fu	Transcription factor ZIC2 promotes tumorigenic phenotypes by regulating the biology of the bulk and cancer stem cells in ovarian cancer
46	John Maringa Githaka	Postdoctoral fellow	Ing Swie Goping	BAD phosphorylation facilitates mRNA translation during epithelial cell migration in the developing mammary gland
47	Maxine Myre	PhD student	Tanya Berry	Body weight diversity in physical activity promotion: Perspectives of women living with obesity
48	Victoria Elliot	Undergraduate student	Jane Schulz	Obstetrical anal sphincter injuries & the need for adequate care

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #9

3 – 4:30 p.m.  
Chancellor Room

### Children's health and well-being: Development

#	Name	Position	Supervisor	Abstract title
49	<b>Charlene Nielsen</b>	Postdoctoral fellow	Alvaro Osornio-Vargas	A medical macroscope for children's environmental health: The ChEHC map collection
50	<b>Kenji Rowel Lim</b>	PhD student	Toshifumi Yokota	Developing antisense gapmers to knock down DUX4 for the treatment of facioscapulohumeral muscular dystrophy
51	<b>Mahdieh Khodaei</b>	PhD student	Edmond Lou	Prognostic factors for curve progression in adolescent with idiopathic scoliosis: A systematic review
52	<b>Matthew Saurette</b>	Masters student	R.Todd Alexander	Intestinal phosphate absorption: Claudin-12 attenuates paracellular phosphate absorption
53	<b>Tate MacDonald</b>	Masters student	Todd Alexander	Towards an understanding of the difference in organic and inorganic phosphate bioavailability
54	<b>Zeenat Ladak</b>	Masters student	Sujata Persad	A therapy to prevent neurodevelopmental disabilities: Protection of brain cells by sulforaphane

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).



## ORAL PRESENTATION #10

3 – 4:30 p.m.  
Chairman Room

### Pediatric residents

#	Name	Position	Supervisor	Abstract title
55	Amanda Yaworski	Resident	Janani Kassiri	Reduction in emergency department visits and improved diagnoses through implementation of a rapid access neurology clinic
56	Chris Novak	Resident	Dawn Davies	Peripherally-acting mu-opioid antagonists for treatment of opioid-induced constipation in children
57	Eyad Bitar	Subspecialty resident	Abbas Hyderi	The value of early echocardiographic parameters to predict chronic pulmonary hypertension in extreme premature infants
58	Gina Catena	Resident	Dawn Davies	Medical assistance in dying and minors: Views of the Canadian pediatrician
59	Michelle Huie	Resident	Karen Forbes	Preferred pediatric resident learning styles: From junior to senior resident
60	Nick Giffin	Resident	Venkatesan Sivarajan	Impact of early surgical correction/palliation of congenital heart defects in infants with viral respiratory tract infections in the current era
61	Rafiah Valji	Subspecialty resident	Joanna MacLean	A comparison of long-term non-invasive ventilation use in Down syndrome and non-Down syndrome children
62	Zafira Bhaloo	Resident	Tamizan Kherani	Improving the efficiency of handover in pediatrics: A resident-led quality improvement project

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).

4:30 – 5 p.m. **Networking reception and “ask the expert” session** – Ballroom

5 – 5:15 p.m. **Awards and wrap-up** – Ballroom

# NON-TRAINEE POSTER PRESENTATIONS – ALL DAY

Foyer

#	Presenter	Supervisor	Abstract title
<b>CHILDREN'S HEALTH AND WELL-BEING: CANCER</b>			
63	Mervin Burnett	Consolato Sergi	Graphene oxide nanoparticles on induced apoptosis in osteosarcoma
<b>CHILDREN'S HEALTH AND WELL-BEING: CARDIAC HEALTH</b>			
64	Hilal AL Riyami	Carolina Escudero	Does a smartphone-based ECG recording system in pediatric patients with palpitations improve diagnostic yield
65	Kiera Pajunen	Edythe Tham	Cardiac magnetic resonance assessment of aortopathy in pediatric Turner syndrome
66	Andrew Mackie		Randomized controlled trial of a transition intervention program for young adolescents with congenital heart disease
67	Edythe Tham		Cardiac magnetic resonance parameters associated with surgery in a pediatric and young adult population with chronic aortic regurgitation
<b>CHILDREN'S HEALTH AND WELL-BEING: DEVELOPMENT</b>			
68	Lori Sacrey	Lonnie Zwaigenbaum	Physiological measurement of emotion from infancy to preschool
69	Rob Buschmann	Maria Mayan	Southside Mother's Day out: Understanding one child care's struggle to improve early learning and care in Edmonton
70	Jessica Shillington	Deb McNeil	Feeding & readiness: The transition from hospital-to-home with a late-preterm infant
71	Mia Tulli	Bukola Salami	Immigrant children in Canada: Mothers' perspectives on barriers to mental health care
72	Mosarrat Qureshi	Khalid Aziz	Prophylactic indomethacin: The impact on brain and gut injury may be gestational age dependent
<b>CHILDREN'S HEALTH AND WELL-BEING: INFECTION, INFLAMMATION, IMMUNOLOGY</b>			
73	Ali Assi	Shannon MacDonald	The childhood immunization reminder project (ChIRP): A pilot intervention to improve uptake of children's 18-month immunizations
<b>CHILDREN'S HEALTH AND WELL-BEING: NUTRITION AND GASTROINTESTINAL HEALTH</b>			
74	Alexandra Petrova	Hien Huynh	Infliximab clearance during and post induction predicts clinical and endoscopic outcomes at 1 year in children with Crohn's disease
75	Dory Sample	Justine Turner	AGY for patients with symptomatic Celiac disease: Protocol for a randomized, placebo-controlled phase II trial
76	Marcus O'Neill	Geoff Ball	Using the social ecological model to improve pediatric ambulatory appointment scheduling



#	Presenter	Supervisor	Abstract title
---	-----------	------------	----------------

**KNOWLEDGE TRANSLATION AND DECISION-MAKING**

77	<b>Aireen Wingert</b>	Lisa Hartling	Clinical interventions that influence vaginal birth after cesarean delivery rates: Systematic review & meta-analysis
78	<b>Allison Gates</b>	Lisa Hartling	A systematic review of the factors that influence the acceptability of childhood vaccines among Canadians
79	<b>Salima Meherali</b>	Shannon Scott	A systematic review: Interventions and strategies to improve sexual and reproductive health outcomes of adolescents living in low and middle-income countries
80	<b>Michelle Gates</b>	Lisa Hartling	Effectiveness of digital technologies as a distraction for acute pain in children: A systematic review and meta-analysis
81	<b>Stevi Golden-Plotnik</b>	Samina Ali	Caregiver perspectives on children's functional experiences after fracture: A qualitative study
82	<b>Ellen Morrison</b>	Samina Ali	Validation of the Stoplight Pain Scale tool in the Canadian emergency setting
83	<b>Lisa Hartling</b>		Pediatric parent advisory group evaluation: Assessing meaningful involvement and identifying future directions
84	<b>Tabatha Plesuk</b>	Shannon Scott	Comparing the usability evaluation results of two parental tools for urinary tract infection

**LIFELONG WOMEN'S HEALTH**

85	<b>Michelle Goonasekera</b>	Amy Kirkham	A biopsychosocial perspective: Relationships among quality of life, treatment symptoms and cardiorespiratory fitness in women receiving chemotherapy for breast cancer
86	<b>Powel Crosley</b>	Mary Hitt	Preclinical evaluation of TRAIL combined with PAC-1 to control granulosa cell tumour
87	<b>Solina Richter</b>		Intersection of place, social connectedness, income, culture and health: Experiences and perceptions of female economic migrants in Canada
88	<b>Tara Janes</b>	Richard Kinkead	Panic, stress and sex: Orexin 1 receptors are necessary for enhancement of the hypercapnic ventilatory response in female rats subjected to neonatal stress
89	<b>Jacqueline Krysa</b>	Spencer Proctor	Non-fasting remnant cholesterol in Alberta's tomorrow project: Implications for CVD risk prediction in women





#      Presenter      Supervisor      Abstract title

**PREGNANCY AND DEVELOPMENTAL TRAJECTORIES**

90	<b>Amol Moray</b>	Lisa Hornberger	3rd trimester umbilical arterial blood flow is associated with neurodevelopmental outcomes at 2 years
91	<b>Sana Amjad</b>	Maria Ospina	Association between maternal wildfire exposure and the risk of adverse birth outcomes: A systematic review
92	<b>Deliwe Ngwezi</b>	Lisa Hornberger	Prenatal features of ductus arteriosus related branch pulmonary stenosis in fetal pulmonary atresia
93	<b>Dragana Misita</b>	Rhonda Bell	Prenatal nutrition care in Alberta: Exploring women's interest in dietetic services during pregnancy and dietitians experiences supporting pregnant women during pregnancy
94	<b>Mirna Matta</b>	Kathleen Chaput	Recommendations for cannabis use in pregnancy among sources of cannabis sales in Alberta
95	<b>Safia Marani</b>	Maria Ospina	Cost evaluation of emergency department use among pregnant and post-partum women in Alberta from 2013-2017
96	<b>Stuart Lau</b>	Anita Kozyrskyj	Cesarean section delivery and neurodevelopment: Systematic evidence for variation by birth events and impairment phenotype

For full abstracts, please visit our website at [www.wchri.org/wchri-publications](http://www.wchri.org/wchri-publications).

# OUR RESEARCH SUPPORT (2018–2019)

We are proud to fund opportunities that promote and support innovation in women's and children's health.



**78**  
educational  
workshop  
events



**329**  
active grants with  
**153**  
directly supporting  
undergraduate and graduate  
students and postdoctoral  
fellows



**80**  
studies supported  
by our expert  
research staff



**38**  
active  
partnerships



**37**  
clinical trials  
supported



**372**  
new REDCap  
requests

# ALPHABETICAL LIST OF PRESENTERS

Name	#	Time	Room
Afsharipour, Babak	138	9-10	Ballroom
Afzalzada-Ahrari, Malema	99	9-10	Ballroom
Ahmad, Attila	196	1:45-2:45	Ballroom
AL Riyami, Hilal	64	all day	Foyer
Alam, Abrar	23	10:15-11:45	Chancellor Room
Almubarak, Asra	148	9-10	Ballroom
Amjad, Sana	91	all day	Foyer
Amodu, Oluwakemi	113	9-10	Ballroom
Anjum, Bushra	224	1:45-2:45	Ballroom
Antunes Lopes, Nayara	112	9-10	Ballroom
Aslesh, Tejal	219	1:45-2:45	Ballroom
Assi, Ali	73	all day	Foyer
Babolmorad, Ghazal	119	9-10	Ballroom
Babyn, Katherine	175	1:45-2:45	Ballroom
Baddam, Pranidhi	17	10:15-11:45	Consulate Room
Baqays, Abdulsalam	134	9-10	Ballroom
Bedi, Iqwak	108	9-10	Ballroom
Beggs, Megan	24	10:15-11:45	Chancellor Room
Beigh, Mirza	125	9-10	Ballroom
Bennett, Jessica	120	9-10	Ballroom
Bhaloo, Zafira	62	3-4:30	Chairman Room
Biancardi, Vivian	232	1:45-2:45	Ballroom
Bianchi Lemieszek, Marina	103	9-10	Ballroom
Bilyk, Lena	26	10:15-11:45	Chairman Room
Bird, Melissa	164	9-10	Ballroom
Bitar, Eyad	57	3-4:30	Chairman Room
Boparai, Rakhbeer	12	10:15-11:45	Leduc Room
Boyd, Kassi	141	9-10	Ballroom
Bui, An	215	1:45-2:45	Ballroom
Burnett, Mervin	63	all day	Foyer
Buschmann, Rob	69	all day	Foyer
Campbell, Alyson	166	1:45-2:45	Ballroom
Cao, Amanda	122	9-10	Ballroom
Carla, Sosa	156	9-10	Ballroom
Catena, Gina	58	3-4:30	Chairman Room
Chan, Andrew	20	10:15-11:45	Chancellor Room
Chan, Jackie	206	1:45-2:45	Ballroom
Chen, Huachen	45	3-4:30	Consulate Room
Chen, Lu Kun	218	1:45-2:45	Ballroom
Cheung, Daphne	107	9-10	Ballroom
Choi, Won-Shik (Daniel)	179	1:45-2:45	Ballroom
Choudhury, Bipasha	223	1:45-2:45	Ballroom
Chow, Braden	101	9-10	Ballroom
Crosley, Powel	86	all day	Foyer
Cunningham, Chentel	167	1:45-2:45	Ballroom
Desai, Vidhi	117	9-10	Ballroom
Deschenes, Sadie	132	9-10	Ballroom
Dicipulo, Renee	153	9-10	Ballroom

Name	#	Time	Room
Dijk, Stephanie	36	3-4:30	Turner Valley Room
Durber, Chelsea	2	10:15-11:45	Turner Valley Room
Dzierlega, Kasia	150	9-10	Ballroom
Eaton, Andrea	227	1:45-2:45	Ballroom
Elawad, Dalia	163	9-10	Ballroom
Elliot, Victoria	48	3-4:30	Consulate Room
Elyasi, Maryam	168	1:45-2:45	Ballroom
Evanchuk, Jenna	39	3-4:30	Leduc Room
Fakhr, Yuliya	118	9-10	Ballroom
Fan, Lu'an	142	9-10	Ballroom
Fellus, Sapir	187	1:45-2:45	Ballroom
Ferdinands, Alexa	31	3-4:30	Turner Valley Room
Firouzeh, Pegah	210	1:45-2:45	Ballroom
Flynn, Rachel	170	1:45-2:45	Ballroom
Fox, Sabrina	155	9-10	Ballroom
Ganguly, Esha	7	10:15-11:45	Leduc Room
Gates, Allison	78	all day	Foyer
Gates, Michelle	80	all day	Foyer
Ghoman, Simran	202	1:45-2:45	Ballroom
Giffin, Nick	60	3-4:30	Chairman Room
Githaka, John Maringa	46	3-4:30	Consulate Room
Godziuk, Devyn	216	1:45-2:45	Ballroom
Golden-Plotnik, Stevi	81	all day	Foyer
Goodkey, Kara	217	1:45-2:45	Ballroom
Goonasekera, Michelle	85	all day	Foyer
Greenwell, Amanda	194	1:45-2:45	Ballroom
Ha, Christine	102	9-10	Ballroom
Hai, Tasmia	212	1:45-2:45	Ballroom
Han, Angela	123	9-10	Ballroom
Harake, Danielle	197	1:45-2:45	Ballroom
Hartling, Lisa	83	all day	Foyer
Heath, Devon	43	3-4:30	Consulate Room
Henneberry, Molly	111	9-10	Ballroom
Herzog, Jens	149	9-10	Ballroom
Hoffman, Janlyn	8	10:15-11:45	Leduc Room
Holody, Claudia	38	3-4:30	Leduc Room
Holt, Chris	22	10:15-11:45	Chancellor Room
Huang, Yiqing	221	1:45-2:45	Ballroom
Huie, Michelle	59	3-4:30	Chairman Room
Hula, Natalia	10	10:15-11:45	Leduc Room
Hurd, Caitlin	21	10:15-11:45	Chancellor Room
Jamieson, Lockhart	27	10:15-11:45	Chairman Room
Janes, Tara	88	all day	Foyer
Johnson, Peter Anto	16	10:15-11:45	Consulate Room
Johnson, Sarah	211	1:45-2:45	Ballroom
Kang, Jimmy	183	1:45-2:45	Ballroom
Kaur, Amanpreet	195	1:45-2:45	Ballroom
Kebbe, Maryam	228	1:45-2:45	Ballroom

# ALPHABETICAL LIST OF PRESENTERS

Name	#	Time	Room
Kennedy, Josh	140	9-10	Ballroom
Keshavarz, Hedieh	25	10:15-11:45	Chairman Room
Khetarpal, Nitya	105	9-10	Ballroom
Khodaei, Mahdieh	51	3-4:30	Chancellor Room
Kibalnyk, Yana	220	1:45-2:45	Ballroom
Kim, Chan	191	1:45-2:45	Ballroom
Kimber, Miranda	40	3-4:30	Leduc Room
Knisley, Lisa	98	9-10	Ballroom
Krysa, Jacqueline	89	all day	Foyer
Labban, Wasim	214	1:45-2:45	Ballroom
Ladak, Zeenat	54	3-4:30	Chancellor Room
Landry, Takaaki	121	9-10	Ballroom
Latif, Asna	190	1:45-2:45	Ballroom
Lau, Stuart	96	all day	Foyer
Leclair, Guillaume	205	1:45-2:45	Ballroom
Lee, Laura	176	1:45-2:45	Ballroom
Li, Jia Hang	109	9-10	Ballroom
Li, Nicholas	104	9-10	Ballroom
Li, Yutong (Jessica)	222	1:45-2:45	Ballroom
Lim, Kenji Rowel	50	3-4:30	Chancellor Room
Lin, Lily	198	1:45-2:45	Ballroom
Lopresti, Sabrina	143	9-10	Ballroom
Louie-Poon, Samantha	165	9-10	Ballroom
Luong, Deandra	130	9-10	Ballroom
Maadi, Hamid	44	3-4:30	Consulate Room
MacDonald, Tate	53	3-4:30	Chancellor Room
Mackie, Andrew	66	all day	Foyer
Mah, Richard	115	9-10	Ballroom
Maki, Claudia	97	9-10	Ballroom
Mander, Inderdeep	34	3-4:30	Turner Valley Room
Mangat, Avneet	200	1:45-2:45	Ballroom
Manz, Joren	174	1:45-2:45	Ballroom
Marani, Safia	95	all day	Foyer
Mason, Alleson	135	9-10	Ballroom
Matta, Mirna	94	all day	Foyer
Meah, Victoria	29	10:15-11:45	Chairman Room
Meherali, Salima	79	all day	Foyer
Mella, Allison	136	9-10	Ballroom
Mevawala, Amynah	173	1:45-2:45	Ballroom
Misita, Dragana	93	all day	Foyer
Mitchell, Nikki	41	3-4:30	Leduc Room
Mohseni, Mahsa	192	1:45-2:45	Ballroom
Moray, Amol	90	all day	Foyer
Morin, Estelle	225	1:45-2:45	Ballroom
Morin, Sarah	160	9-10	Ballroom
Morris, Heather	3	10:15-11:45	Turner Valley Room
Morrison, Ellen	82	all day	Foyer
Mustofa, Jannatul	201	1:45-2:45	Ballroom

Name	#	Time	Room
Myre, Maxine	47	3-4:30	Consulate Room
Nguyen, Jasmine	182	1:45-2:45	Ballroom
Nguyen, Kim-Cuong	208	1:45-2:45	Ballroom
Ngwezi, Deliwe	92	all day	Foyer
Nie, Chunpeng	203	1:45-2:45	Ballroom
Nielsen, Charlene	49	3-4:30	Chancellor Room
Noble, Ronan	186	1:45-2:45	Ballroom
Novak, Chris	56	3-4:30	Chairman Room
Obiakor, Chinwe Vivien	33	3-4:30	Turner Valley Room
Olugbuyi, Yomi	199	1:45-2:45	Ballroom
O'Neill, Marcus	76	all day	Foyer
O'Reilly, Amanda	172	1:45-2:45	Ballroom
Orsso, Camila	158	9-10	Ballroom
Pagee, Abbey	37	3-4:30	Leduc Room
Pajkic, Andrea	137	9-10	Ballroom
Pajunen, Kiera	65	all day	Foyer
Palichuk, Airlie	4	10:15-11:45	Turner Valley Room
Palmer, Sophie	188	1:45-2:45	Ballroom
Pandya, Vrajesh	30	10:15-11:45	Chairman Room
Panigrahi, Rashmi	178	1:45-2:45	Ballroom
Pasha, Mazhar	110	9-10	Ballroom
Patel, Siddhi	133	9-10	Ballroom
Patricny, Nicol	6	10:15-11:45	Turner Valley Room
Petrova, Alexandra	74	all day	Foyer
Pham, Thanh-Tu	146	9-10	Ballroom
Pherwani, Simran	127	9-10	Ballroom
Plesuk, Tabatha	84	all day	Foyer
Punjani, Neelam	5	10:15-11:45	Turner Valley Room
Qureshi, Mosarrat	72	all day	Foyer
Raza, Sarah	144	9-10	Ballroom
Reklow, Robert	18	10:15-11:45	Consulate Room
Richter, Solina	87	all day	Foyer
Roshmi, Rohini Roy	154	9-10	Ballroom
Roth, Daniela	14	10:15-11:45	Consulate Room
Ruel, Nicholas	193	1:45-2:45	Ballroom
Ruiz, Martha	1	10:15-11:45	Turner Valley Room
Saadat, Saba	116	9-10	Ballroom
Sacrey, Lori	68	all day	Foyer
Sáez, Tamara	42	3-4:30	Leduc Room
Saini, Jashan	230	1:45-2:45	Ballroom
Saini, Jasmeen	231	1:45-2:45	Ballroom
Sample, Dory	75	all day	Foyer
Sanchez Enkerlin, Annette	157	9-10	Ballroom
Sanderson, Matthea	152	9-10	Ballroom
Sanni, Omolara	114	9-10	Ballroom
Saurette, Matthew	52	3-4:30	Chancellor Room
Sayed, Tehzeeb	213	1:45-2:45	Ballroom
Serrano-Lomelin, Jesus	15	10:15-11:45	Consulate Room

# ALPHABETICAL LIST OF PRESENTERS

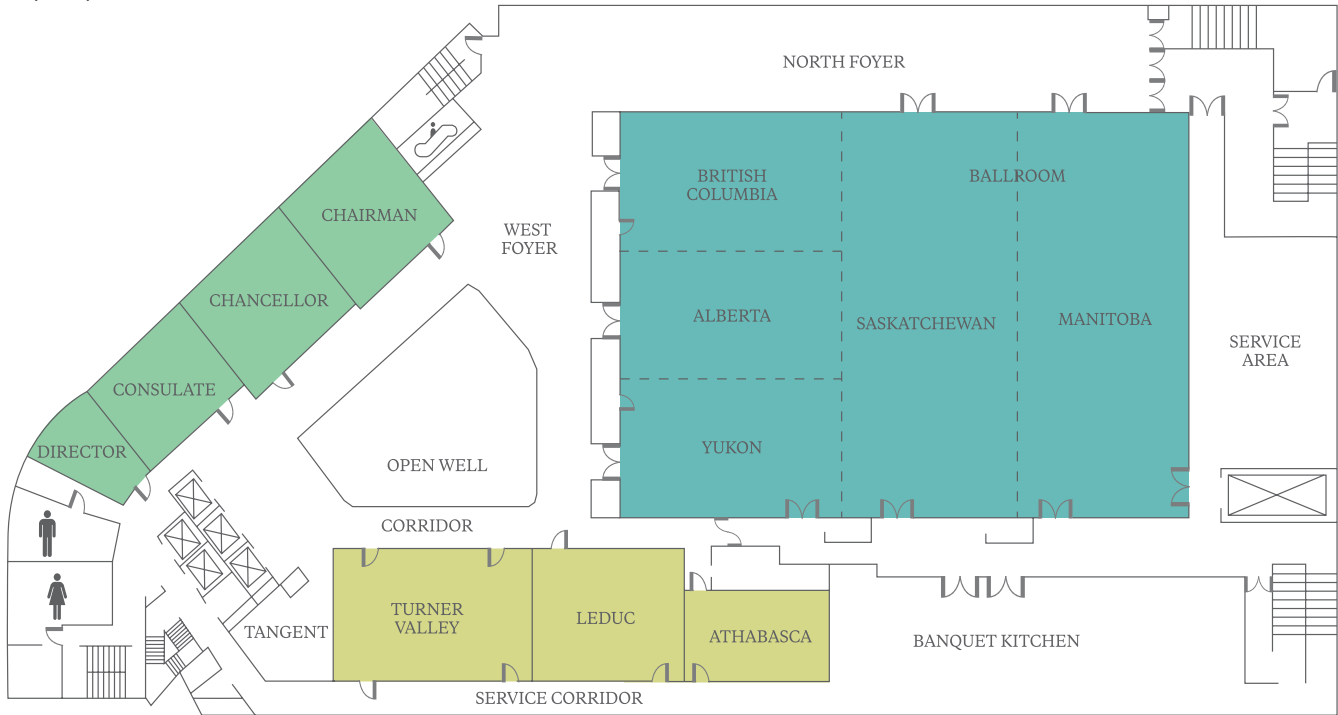
Name	#	Time	Room
Shah, Prachi	177	1:45-2:45	Ballroom
Shaha, Sumaiyah	189	1:45-2:45	Ballroom
Shigemitsu, Sachie	126	9-10	Ballroom
Shillington, Jessica	70	all day	Foyer
Simin, Irina	139	9-10	Ballroom
Singh, Simran	145	9-10	Ballroom
Skow, Rachel	11	10:15-11:45	Leduc Room
Stretch, Kendyl	184	1:45-2:45	Ballroom
Sung, Hyelin	229	1:45-2:45	Ballroom
Tan, Qiming	159	9-10	Ballroom
Teramachi, Yozo	129	9-10	Ballroom
Tessier, Carmen	32	3-4:30	Turner Valley Room
Tham, Edythe	67	all day	Foyer
Thereza-Bussolaro, Claudine	204	1:45-2:45	Ballroom
Thompson, Alexa	180	1:45-2:45	Ballroom
Thompson, Alison	226	1:45-2:45	Ballroom
Toohey, Alexander	162	9-10	Ballroom
Trakulmungskichkam, Thotsapon	128	9-10	Ballroom
Truong, Linda	209	1:45-2:45	Ballroom
Tulli, Mia	71	all day	Foyer
Tun, Mon	9	10:15-11:45	Leduc Room
Valji, Rafiaa	61	3-4:30	Chairman Room
van der Leek, Aaron	161	9-10	Ballroom
van Eeden, Charmaine	13	10:15-11:45	Consulate Room
Voaklander, Britt	106	9-10	Ballroom
Vu, Ngoc Khanh	35	3-4:30	Turner Valley Room
Watson, Adrienne	147	9-10	Ballroom
Weaver, Olivia	28	10:15-11:45	Chairman Room
Webster, Kirsten	185	1:45-2:45	Ballroom
Wewala, Gayathri	124	9-10	Ballroom
Wine, Osnat	169	1:45-2:45	Ballroom
Wingert, Aireen	77	all day	Foyer
Wollin, Bethany	100	9-10	Ballroom
Wong, Jason	19	10:15-11:45	Chancellor Room
Wooldridge, Amy	181	1:45-2:45	Ballroom
Yaworski, Amanda	55	3-4:30	Chairman Room
Yoon, Kevin	151	9-10	Ballroom
Young, Kennedi	207	1:45-2:45	Ballroom
Zare, Alaa	171	1:45-2:45	Ballroom
Zehnder, Emily	131	9-10	Ballroom



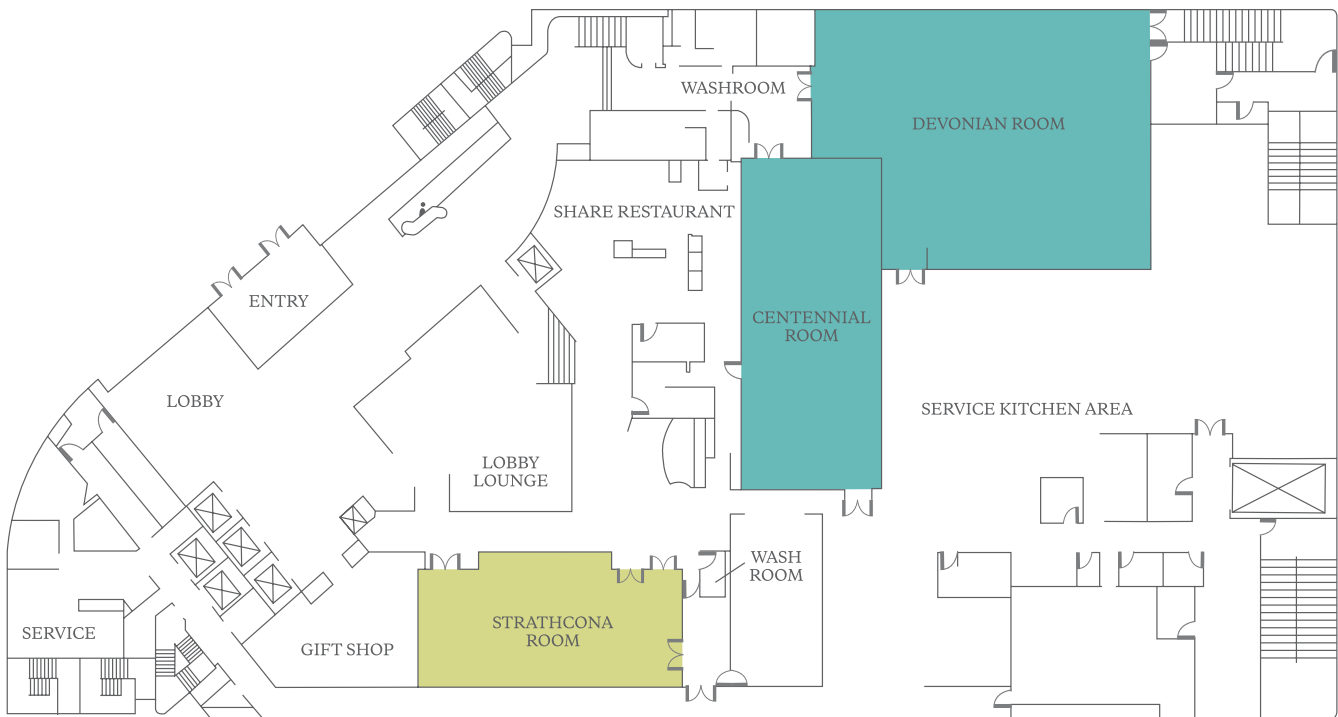
# VENUE MAP

## Westin Hotel

10135 100 St NW, Edmonton  
(780) 426-3636



BANQUET LEVEL



LOBBY LEVEL



women & children's  
health research institute

5-083 Edmonton Clinic Health Academy  
11405 – 87 Avenue  
Edmonton, AB T6G 1C9

(780) 248-5602 | [wchri@ualberta.ca](mailto:wchri@ualberta.ca) | [wchri.org](http://wchri.org)

We gratefully acknowledge the support of our

**AV SPONSOR**

**PSAV**<sup>®</sup>

**VENUE SPONSOR**

**THE WESTIN**  
EDMONTON



**#wchriRD2019**