



LET'S TALK ABOUT

SEX+ GENDER

Exploring the roles of sex and gender on health research

Pre-Conference Sessions on October 5 + 6, 2020

October 7 + 8, 2020 | Virtual Conference

Presented by:



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Presentation links

Click below to open the Zoom links for each session

Poster Presentations - October 5

- » Group 1 | 9:00 AM
- » Group 2 | 9:00 AM
- » Group 3 | 9:00 AM
- » Group 4 | 1:00 PM
- » Group 5 | 1:00 PM
- » Group 6 | 1:00 PM

Mentorship Workshop - October 6

» Sex & Gender in biomedical research: Why does it matter? | 12:00 - 1:00 PM

Day 1 - Wednesday, October 7

- » All day presentations
- » <u>Dr. Goodbear's Den</u> <u>1:00 3:00 PM</u>

Day 2 - Thursday, October 8

- » Pediatric Grand Rounds | 8:00 9:00 AM
- » All day presentations

Message from our CEO

I am proud of the work that our research community is involved in, as they help to create a healthier future for everyone.

Welcome to the 16th Annual Child Health Research Days, being hosted virtually for the very first time!

On behalf of everyone at the Children's Hospital Research Institute of Manitoba, thank you for joining us and celebrating the amazing research being done at the Institute.

I look forward to this conference each year as it gives me an opportunity to reflect and observe the tremendous growth that CHRIM has made and the great community that continues to develop. We are working together in these very challenging times during a global pandemic and I am proud of the work that our research community is involved in, helping to shape a healthier future for everyone.

Over the next day and a half, you will hear from four of our trainees on a number of topics that explore all stages of child development from pre-natal to adolescence. We are also thrilled to welcome speakers from CHRIM, across Canada and even overseas on a range of topics that relate to the importance of sex and gender and the role each plays when it comes to child health.

My hope for everyone attending this year's conference is that you leave feeling energized by the excellent work that is shared and inspired by the new connections created!



Terry Klassen MD, MSc, FRCPC CEO + Scientific Director, Children's Hospital Research Institute of Manitoba



Pre-Conference Schedule

MONDAY, OCTOBER 5, 2020

Trainee Poster Presentations

See the detailed schedule on the website here

Morning sessions start at 9:00 AM (separate Zoom links for each group)

GROUP1		GROUP 2		GROUP3	
Manuel Sebastian	Emily Cameron	Landon Falk	James Cluff	Allison Dart	Patience Obi
Doris Onuzulu	Laura Cole	Michael Charette	Jared Field	Syeda Jafri	Michael Golding
Kathryn Rollins	Habeeb Alsaeed	Sujata Basu	Michelle Guimond	Shaelyn Stienwandt	Keely Loewen
Dina Mostafa	Susan Telencoe	Taiana Pierdoná	Nuwanthika Gimhani	Shayna McNeill	Sarah Spenard
Lara Penner-Goeke	Alysa Almojuela	Shahla Shojaei	Promita Ghosh	Osamuyi Asemota	JuHae Lee
Taylor Morriseau	Alex Aregbesola	Divleen Mangat	Samritha Ramansivakumar	Kara Frejuk	Melissa Sekundiak
Anthony Altieri	Christine Vaccaro	Joel Hardy	Emily Turner-Brannen	Aizeddin (Aziz) Mhanni	Tegan Turner
	Amarjot Padda		Jigneshkumar Vaghasiya	Tessa Memauri	Hailey Hildebrand

Afternoon sessions start at 1:00 PM (separate Zoom links for each group)

GROUP 4		GROUP 5		GROUP 6	
Jeffery Osagie	Nikho Hizon	Mandy Archibald	Trevyna William	Katrina Lanyon	Cindy Holland
Benjamin Bydak	Babu Sajesh	Rheann Brownstone	Pramila Maharjan	Kaitlyn Merrill	Hamideh Alai-Towfigh
Mateusz Tomczyk	Matthew Martens	Julia Sulymka	Rachelle Govia	Bitian Meng	Meagan Wiebe
Mitchell Wilson	Taylor Goodon	Sarah Turner	Katarina Nikel	Lynette Bonin	Yash Rawal
Nada El Tobgy	Thomas Mahood	Paige Isabey	Mira Villegas	Arun Paul	Azizur Rahman
Sanjana Syeda	Stephanie Kereliuk	Kayla Joyce	Sydney Levasseur-Puhach	Hailey Hildebrand	William MacDougall
Madhumita Suresh	Nicole Russel Andrew (Wai Hei) Tse	Kaitlyn Tymko	Brandy Wicklow Thomas Rawliuk	Kristene Cheung	Tara Lynn Frykas Gabrielle Derraugh

Pre-Conference Schedule

TUESDAY, OCTOBER 6, 2020

Mentorship Workshop

Presented in partnership with WISDOM and the CHRIM Mentorship Program

12:00-12:10pm **Greetings**

Dr. Kristy Wittmeier | University of Manitoba, CHRIM

Dr. Janilyn Arsenio, Vice-Chair, Women in Science: Development, Outreach and Mentoring

12:10-12:40pm Sex & Gender in biomedical research: Why does it matter?

Dr. Neeloffer Mookherjee | University of Manitoba, CHRIM

12:40-1:00pm **Q&A**



Dr. Neeloffer Mookherjee

Dr. Neeloffer Mookherjee is an Associate Professor, Department of Internal Medicine (Section of Proteomics and Systems Biology) and Immunology. As the current CIHR Sex and Gender Science Chair in Circulatory and Respiratory Health, she is examining the impact of biological sex in lung inflammation and response to therapy in asthma. Her research focuses on the regulatory mechanisms of inflammation, and she is internationally recognized for defining the immunity-related functions of molecules known as host defence(antimicrobial) peptides. Her research also integrates aspects of how environmental exposures such as air pollution impact chronic disease. She is actively integrating fundamentals of Sex and Gender Based Analyses in all aspects of her research program, with particular focus on sex as a biological variable in the regulation of inflammation in the lungs. Dr. Mookherjee is a strong advocate for women in science, and is the current Chair of the WISDOM (Women In Science; Development, Outreach and Mentorship) initiative at The Rady Faculty of Health Science. For more information see mookherjeelab.com.



Wednesday, October 7

8:00-8:15am	Greetings Dr. Terry Klassen, CEO & Scientific Director, Children's Hospital Research Institute of Manitoba Elder Sherry Copenace, Treaty 3, University of Manitoba
8:15-9:00am	SeXX Matters Dr. Eleanor Fish University of Toronto
9:00-9:30am	Sex differences in child health may originate in the placenta Dr. Wendy Robinson University of British Columbia
9:30-9:40am	BREAK
9:40-10:10am	The early life environment and chronic lung disease: Associations between maternal diabetes and lung dysfunction Dr. Chris Pascoe University of Manitoba, CHRIM
10:10-10:20am	Transplacental transfer of IgG-modified nanoparticles by the maternal-fetal transfer of passive immunity for prenatal therapies Dr. Andrew (WH) Tse Biology of Breathing Trainee, CHRIM
10:20-10:30am	BREAK
10:30-11:00am	The Forgotten Men: Determining how paternal exposures alter the sperm epigenome, fertility and embryo development Dr. Sarah Kimmins McGill University
11:00-11:30am	Defining Gender: Lessons from the Manitoba Transhealth Clinic for Youth Dr. Brandy Wicklow University of Manitoba, CHRIM
11:30-11:40	BREAK (Abstract/Poster Awards)
11:40-12:10pm	Sex and Gender-Based Medicine in Child Health: Proper Care or Propaganda? Dr. Sofia Ahmed University of Calgary
12:10-12:20pm	Biological sex is a variable in allergen-induced airway inflammation Dina Mostafa Biology of Breathing Trainee, CHRIM
12:20-12:40pm	BREAK (Abstract/Poster Awards)
12:40-1:00pm	BREAK
1:00-3:00pm	Dr. Goodbear's Den*

^{*}The top 9 abstracts are selected and entered into Dr. Goodbear's Den session where participants prepare oral presentations. Presentations are ranked by an awards panel and a gold cash award is given to the top participants based on the quality of their presentation and the impact of their research.

Thursday, October 8

8:00am	Greetings Dr. Patricia Birk, Department of Pediatrics & Child Health, University of Manitoba
8:00-9:00am	Moms, Dads, Kids, GDM, and Diabetes: How do they fit together? Dr. Kaberi Dasgupta McGill University
9:00am-9:05am	Greetings Scott Lancaster, Chair, Children's Hospital Research Institute of Manitoba Board of Directors
9:05-9:35am	Sex Differences in Outcomes of Extreme Prematurity Drs. John Baier, Shyamala Dakshinamurti, Molly Seshia University of Manitoba, CHRIM
9:35-9:50am	BREAK
9:50-10:00am	Prenatal Alcohol Exposure-Induced Retinoic Acid Deficiency During Early Gastrulation Results in Oxytocin Signaling Deficits and Associated Maternal Care Deficits Leo McKay SSCY Trainee
10:00-10:30am	Challenges and strategies of providing sex and gender-sensitive care in pediatric rehabilitation Dr. Sally Lindsay Holland Bloorview Kids Rehabilitation Hospital
10:30-10:40pm	BREAK
10:40-11:10am	Clearing Pathogens from Blood: Age and Sex as Factors Dr. Paul Kubes University of Calgary Cumming School of Medicine
11:10-11:20am	Unravelling interactions between sex, diet, and genetics using experimental models of early-onset type 2 diabetes Taylor Morriseau DREAM Trainee, CHRIM
11:20-11:30pm	BREAK (Dr. Goodbear's Den Awards, presented by Bioscience Association Manitoba)
11:30-12:00pm	Pain, Sex, and Death Dr. Jeffrey Mogil McGill University
12:00-12:30pm	Gestational Diabetes and Sex Differences in Metabolic Disease Phenotypes in the Offspring Dr. Vern Dolinsky University of Manitoba, CHRIM
12:30-12:35pm	Closing remarks: Dr. Terry Klassen

Speaker Lineup

Some bios have been shortened to fit the program - find the full speaker bios <u>here</u>



Sophia Ahmed

Dr. Sophia Ahmed is a Professor at the Cumming School of Medicine at the University of Calgary, the Vice Chair (Research) for the Department of Medicine and a nephrologist and clinician-scientist with a focus on sex and gender differences in human kidney and cardiovascular outcomes. Dr. Ahmed is an Advisory Board member for the CIHR Institute of Gender and Health, the Education Chair for the Organization for the Study of Sex Differences, and the Sex and Gender Champion of the CIHR-funded Canadians Seeking Solutions and Innovations to Overcome Chronic Kidney Disease, a pan-Canadian patient-oriented kidney research network.



John Baier

Dr. John Baier graduated from University of Manitoba and completed his Pediatric residency and Neonatal Perinatal Medicine fellowship in Winnipeg. After a few years on staff at the University of Manitoba he took a position in LSUMC in Shreveport Louisiana. He returned to Winnipeg in 2004 where he is an associate professor of pediatrics. His primary academic interests are development of chronic lung disease and genetic determinants of major morbidities of prematurity.



Shyamala Dakshinamurti

Dr. Shyamala Dakshinamurti is a Professor of Pediatrics and Physiology at the University of Manitoba, a neonatologist at Women's Hospital, and a biomedical researcher directing the Neonatal Pulmonary Biology lab in the Biology of Breathing theme at the Children's Hospital Research Institute of Manitoba. Her research interest is the physiology of newborn pulmonary circulation.



Kaberi Dasgupta

Dr. Kaberi Dasgupta is a Physician, Scientist, and Professor of Medicine at McGill University and the McGill University Health Centre. Her research focus is prevention, reversal, and self-management support in diabetes. Her research is funded by the CIHR, Heart & Stroke Foundation, Lawson Foundation, and Diabetes Canada. She has published over 120 papers and her research has received a high level of media coverage because of its direct relevance to patients, practitioners, and policy makers. She is the Director of the Centre for Outcomes Research and Evaluation (CORE) at the Research Institute of the McGill University Health Centre.



Vern Dolinsky

Dr. Vernon Dolinsky is a Children's Hospital Research Institute of Manitoba (CHRIM) Scientist, co-lead of the Pediatric Type 2 Diabetes Research Theme (DREAM) at CHRIM and an Associate Professor in the Department of Pharmacology & Therapeutics in the Faculty of Health Sciences at the University of Manitoba. His lab has been funded by grants from the Canadian Institutes of Health Research (CIHR), Heart and Stroke Foundation of Canada, Children's Hospital Foundation of Manitoba, Research Manitoba, the Manitoba Medical Services Foundation and the Canadian Foundation for Innovation. Dr. Dolinsky's current research explores mitochondrial function, gestational diabetes and the fetal origins of obesity, type 2 diabetes and heart disease in the offspring in rodent models with parallel translational human studies.

Speaker Lineup

Some bios have been shortened to fit the program - find the full speaker bios here



Eleanor Fish

Dr. Eleanor Fish received her B.Sc. from the University of Manchester, UK, her M.Phil. from King's College, University of London, UK and her Ph.D. from the Institute of Medical Science at the University of Toronto, Canada. Dr. Fish studies the interactions of cytokines, specifically interferons and chemokines, with their receptors in normal and diseased cells and tissues. Dr. Fish advocates for understanding how sex and gender influence multiple aspects of the immunophenotype, contributing to the incidence and susceptibility to infection and autoimmune diseases, and responses to vaccinations and medications.



Sarah Kimmins

Dr. Sarah Kimmins received her Ph.D. from Dalhousie University in 2003 and completed her post-doctoral training at the Institut de Génétique et de Biologie Moleculaire et Cellulaire in Strasbourg, France in 2005. She was appointed to the Department of Animal Science in the Faculty of Agricultural and Environmental Sciences in 2005 and is a tenured Associate Professor. Dr. Kimmins is an associate member of the Department of Pharmacology and Therapeutics, Faculty of Medicine at McGill.



Paul Kubes

Dr. Paul Kubes is a Professor at the University of Calgary Cumming School Of Medicine and the Founding Director of the Snyder Institute for Chronic Diseases and leads the Vice President's priority initiative Infections Inflammation and Chronic Diseases (IICD). He also holds a Tier I Canada Research Chair in Leukocyte Recruitment in inflammatory disease.



Sally Lindsay

Dr. Sally Lindsay is a Senior Scientist at Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital and an Associate Professor in the Department of Occupational Science and Occupational Therapy, University of Toronto. Her research focuses on the inclusion and participation of youth with disabilities, especially as they transition to adulthood.



Leo McKay

Leo McKay is a PhD trainee under the supervision of Dr. Geoffrey Hicks at the Regenerative Medicine Program in the Department of Biochemistry and Medical Genetics at the University of Manitoba. He started his undergraduate studies in biochemistry at the Université de Saint-Boniface before transitioning to the University of Manitoba and graduating with a Biochemistry Honours Degree from the Department of Chemistry in 2018. Leo then joined the Hicks Lab as a Master's Student in 2018, and transferred into his PhD starting in January 2020.

Speaker Lineup

Some bios have been shortened to fit the program - find the full speaker bios here



Jeffrey Mogil

Dr. Jeffrey S. Mogil is the E.P. Taylor Professor of Pain Studies, Canada Research Chair in the Genetics of Pain, and the Director of the Alan Edwards Centre for Research on Pain at McGill University. Dr. Mogil is the author of over 240 journal articles and book chapters since 1992, and has given over 350 invited lectures in that same period. He is a Councilor at IASP, recently served as a Section Editor at the journal, Pain, and was the chair of the Scientific Program Committee of the 13th World Congress on Pain. He is the recipient of numerous awards, including the Frederick W.L. Kerr Award from the American Pain Society.



Taylor Morriseau

Taylor Morriseau is an Indigenous scholar and PhD candidate at the Children's Hospital Research Institute of Manitoba. As a member of the Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) theme, her CIHR Vanier research examines early-onset type 2 diabetes among Indigenous youth in Manitoba. Taylor engages in broader scientific and societal challenges, serving on the inaugural Chief Science Advisor's Youth Council and recently testified to the Senate Committee on Aboriginal Peoples'. In 2019, she was recognized by WXN as Canada's Most Powerful Women Top 100 and by Corporate Knights Top 30 under 30 Sustainability Leaders.



Dina Mostafa

Dina Mostafa is a MSc student (Immunology Program) in Dr. Neeloffer Mookherjee's research group at The University of Manitoba. Dina completed a BSc in Biomedical Science from The University of Salford (Manchester, UK) with the President's Prize for academic distinction. Dina's current research focus is on sex-related differences in allergen-mediated airway inflammation, in the context of asthma. She was a recipient of the CIHR Institute of Gender and Health (CIHR-IGH) award to present her work at the Organization for the Study of Sex Differences (OSSD) meeting and the International Society of Gender Medicine (IGM) meeting at Washington DC in 2019.



Chris Pascoe

Dr. Chris Pascoe is an Assistant Professor in the Department of Physiology and Pathophysiology at the University of Manitoba. He received his PhD from the University of British Columbia and completed his post-doctoral training at the University of Manitoba. His research uses animal and cell culture models to investigate the mechanisms linking early life environmental exposures to asthma risk. His current research focuses on the influence of co-exposure to maternal diabetes and cigarette smoke on lung development and lung function. Dr. Pascoe's lab is also interested in understanding the impact of e-cigarette use on lung physiology and exploring how lipid signaling molecules coordinate airway smooth muscle function.

Speaker Lineup

Some bios have been shortened to fit the program - find the full speaker bios <u>here</u>



Wendy Robinson

Dr. Wendy Robinson earned a PhD in Genetics at UC Berkeley in 1989. As a postdoctoral fellow at the University of Zurich, Switzerland (1989-1994) her research focused on chromosomal abnormalities in humans and the mechanisms underlying disorders of genomic imprinting. Since 1994, Dr. Robinson has been a faculty member of the Department of Medical Genetics, University of British Columbia where she is currently a full professor and senior scientist at the BC Children's Hospital Research Institute. Her current research focuses on genetic and epigenetic aspects of placental and fetal development.



Molly Seshia

Dr. Molly Seshia graduated from Edinburgh University and following post-graduate training in UK and Manitoba became a U of M faculty member 1976. She has practiced neonatology in Winnipeg for over 40 years and as Section Head of Neonatology, she both witnessed and led many advances and changes. She introduced telehealth into the NICU in 2002 in order to assist remote sites with delivery of care to sick newborns. Dr. Seshia strongly believes that clinical excellence cannot be achieved without both participation in, and support of academic medicine and research. She has been the site principal investigator on several large research studies and has been a part of over 75 per reviewed publications and several book chapters.



Andrew WH Tse

Dr. Andrew (WH) Tse is a member of the miRacla lab. He joined CHRIM in 2017 as a postdoctoral fellow. Dr. Tse completed his Bachelor of Medical Science and doctorate degree at the University of Western Ontario in Medical Biophysics. He was trained in biomedical engineering. He has received a NSERC Postgraduate Scholarship for his research in understanding the influence of modification strategies on the toxicity of nanoparticles and a Research Manitoba Postdoctoral Fellowship for his transplacental nanoparticle research. His career goal aims to bring nanotechnology to the forefront of biomedical applications for diagnostics and therapeutics.



Brandy Wicklow

Dr. Brandy Wicklow is a Pediatric Endocrinologist at the Winnipeg Children's Hospital, Associate Professor at the University of Manitoba, and Clinician Scientist at the Children's Hospital Research Institute of Manitoba (CHRIM). Her research is focused on the determinants of type 2 diabetes (T2D) in children, with a particular interest in the Indigenous population of Northern Manitoba, Canada with whom she works closely both in clinical care and research. Dr. Wicklow is the Principle Investigator of a birth cohort of children born to mothers and fathers diagnosed with childhood T2D (The Next Generation Cohort) examining the effects of in utero T2D exposure on growth, development and the natural history of T2D in offspring. She is the co-lead of the iCARE (Improving Renal Complications in Adolescents with Type 2 Diabetes through Research) cohort study which aims to determine modifiable risk factors in the natural history of diabetes related renal disease.

Trainee Awards

The Children's Hospital Research Institute of Manitoba (CHRIM) recognizes the vital importance of fostering the career development and mentorship of the next generation of child health researchers in Manitoba. The Institute is affiliated with the University of Manitoba, where many of our trainees fulfill their academic degree requirements. CHRIM offers research infrastructure, support, and training opportunities to students at all levels. We welcome those interested to explore their area of study and its impact on child health. Prospective trainees are encouraged to contact our scientific members to explore new and exciting research opportunities.

Our partnerships are essential for investing in the future of child health research in Manitoba. Funding partners for the 2020 MSc awards include Research Manitoba, CancerCare Manitoba*, and the Manitoba Lung Association**. Funding partners for the 2020 PhD awards include Drs. Vern Dolinsky and Andrew Halayko. The following trainee awards were awarded in July 2020.

2020 MASTERS STUDENTSHIPS		
Name	Project Title	Supervisor
Kayla Joyce	The Influence of Co-Occurring Maternal Depression and Substance Use Disorder on Offspring Health and Developmental Outcomes: An Intervention-Based Program*	Dr. Leslie Roos
Chinonye Onuzulu	Analysis of Prenatal Cigarette Smoke-induced DNA Methylation Changes at Candidate Genes in Mice*	Dr. Meaghan Jones
Arun Paul	Quality of Asthma Treatment in Children and Adolescents (QUAST-CA)**	Dr. Geert 't Jong

	2020 PHD STUDENTSHIPS	
Name	Project Title	Supervisor
Mateusz Tomczyk	The Role of SIRT3 in the Regulation of Cardiac Lipids in DOX-Induced Cardiac Dysfunction	Dr. Vernon Dolinsky
Jigneshkumar Vaghasiya	The Role of Oxidized Phospholipids in the Pathobiology of Asthma	Dr. Andrew Halayko

2020 POST-DOCTORAL FELLOWSHIPS		
Name	Project Title	Supervisor
Dr. Taiana Martins	Extracellular vesicles in breast milk and the developmental origins of asthma	Dr. Ayesha Saleem
Dr. Sarah Reyes Paredes	Human milk components and the nasal microbiota as causal factors in the prevention of wheezing and ear infections during the first year	Dr. Meghan Azad

Awards Committee

CHRD Organizing Committee | Terry Klassen, Chair

Chelsea Bowkett
Allison Dart
Vern Dolinsky
Andrew Halayko
Grant Hatch (Interim Chair during
Dr. Klassen's research leave)
Frin Hill

Meaghan Jones
Terry Klassen (Chair)
Lily Lim
Matthew Martens (Trainee rep)
Debbie Maslowsky
Stephanie Matthews
Jon McGayock

Jennifer Protudjer Chris Pascoe Florencia Ricci Andrew Tse (*Trainee rep*) Nichola Wigle Jeff Wilson Kristy Wittmeier

Poster Judges

Harold Aukema Michael Charette Allison Dart Marc Del Bigio Bradley Doble Vern Dolinsky Britt Drögemöller Andrew Halayko Meaghan Jones

Tobias Karakach Richard Keijzer Hagar Labouta Michelle Liu Jon McGavock Neeloffer Mookherjee Chris Pascoe Jennifer Protudjer Leslie Roos Ayesha Saleem
Garry Shen
Elinor Simons
Kellie Thiessen
Barbara Triggs Raine
Peter Thompson
Brandy Wicklow
Kristy Wittmeier

Abstract Adjudicators

Geert 't Jong Kristene Cheung Allison Dart Hao Ding Brad Doble Vern Dolinsky Tiina Kaupinen Sam Kung Dylan MacKay Hassan Marzban Jon McGavock Steven Mink Joanne Parsons Jennifer Protudjer Christy Pylypjuk Leslie Roos Kelly Russell Elinor Simons Abdel Soussi Gounni Mahmouud Torabi Brandy Wicklow

Goodbear's Den Judges

Mandy Archibald Kristi Bell Christopher Pascoe Peter Thompson

Abstract Listing

Read the abstracts on the CHRD website here

Alai-Towfigh	Hamideh	Canadian Dentists' Views on the First Dental Visit and Early Childhood Oral Health
Almojuela	Alysa	The Development of a Provincial Epilepsy Program and Analysis of Early Outcomes
Alsaeed	Habeeb	Isolated diastolic high blood pressure: A distinct clinical phenotype in North American children
Altieri	Anthony	Inhaled diesel exhaust alters antimicrobial peptide Amphiregulin in a sex-dependent manner: A pilot study
Archibald	Mandy	Developing a Living Lab for Patient-Engagement and Knowledge Exchange in Pediatric Rehabilitation: Interim Results from a Mixed Methods Co-Design Project
Aregbesola	Alex	Implementation strategies in emergency management of children: a scoping review
Asemota	Osamuyi	Respiratory outcomes in the first ten years-of-life in children with gastroschisis: a retrospective cohort study
Basu	Sujata	IGFBP3 Modulates Lung Pathophysiology In An Allergen-Specific Manner In Murine Models Of Asthma
Bonin	Lynette	The Impact of Maternal Dyadic Interactions on Child Stress Physiology and Resiliency
Brownstone	Rheann	Can We Move to Same-Day Discharge for Pediatric Patients Undergoing Laparoscopic Cholecystectomy?
Bydak	Benjamin	Extracellular vesicle (EV) characteristics during skeletal muscle differentiation and acute exercise
Cameron	Emily	Parental Depression, Anxiety, and Mental Health Service Use during the COVID-19 Pandemic
Charette	Michael	Lost In Translation: Investigating the translation defect in Bowen-Conradi Syndrome
Cheung	Kristene	Differences between ratings and tests of executive functioning among children with prenatal alcohol exposure with and without FASD.
Cluff	James	Casein Kinase 2 Catalytic Subunits a1/a2 of the SSU Processome's Utp-C Subcomplex Regulate Ribosome Biosynthesis
Cole	Laura	Berberine alleviates adiposity and cardiac dysfunction in offspring exposed to gestational diabetes mellitus.
Dart	Allison	Urine cytokine levels and albuminuria progression over 2 years in youth with Type 2 Diabetes
Derraugh	Gabrielle	Virtual follow-up of long-term physical, mental and educational outcomes for children with congenital diaphragmatic hernia
El Tobgy	Nada	Investigating mTOR and components of protein translation initiation in Rett Syndrome patients
Falk	Landon	The Aryl Hydrocarbon Receptor (AHR) is Involved in the Pathogenesis of Congenital Diaphragmatic Hernia (CDH)
Field	Jared	Tuning Muscle Energy Homeostasis: The Role of Nix in Mitophagy and Adaptation
Frejuk	Kara	Screening Rates and Clinical Care Practices for Diabetes and Kidney Disease in Indigenous Children before and after the FINISHED screen, triage, and treat Program
Frykas	Tara Lynn	Food insecurity in the 12 months prior to the COVID-19 pandemic
Ghosh	Promita	De novo discovery of seven novel HYAL2 mutations in patients with cleft lip and /or palate cause HYAL2-deficiency: A biochemical insight
Gimhani	Nuwanthika	Deciphering the Mechanisms of bmp4 gene - ethanol interactions in Cleft Palate Development; Insights from Zebrafish (Danio rerio)
Golding	Michael	Changes in food-related costs among food allergic families following the COVID-19 pandemic
Goodon	Taylor	Studying the Gene Dosage and Genetic Interactions of the Bowen-Conradi Syndrome Protein Emg1
Govia	Rachelle	The relationship between amniotic fluid sludge and proteomic profile in a cohort of pregnant women with acute cervical insufficiency.
Guimond	Michelle	Design of parts and methods to simplify the production and handling of 3D bioprinted tissues
Hardy	Joel	Protein Origami: The Bowen-Conradi Syndrome Protein Emg1 is Unfolded

Abstract Listing

Read the abstracts on the CHRD website **here**

Paul

Arun

systematic review

Hildebrand	Hailey	Adult and pediatric food allergy to non-priority legumes in the clinical context: A scoping review
Hildebrand	Hailey	The burden of non-priority legume allergy amongst families of children and adults with multiple food allergies
Hizon	Nikho	Identifying the DNAm Signature of Childhood Onset Type II Diabetes in the iCARE cohort
Holland	Cindy	Follow-up of children who undergo an uncomplicated surgical procedure: a caregiver survey to determine satisfaction, family impact and preferences for alternate follow-up
Isabey	Paige	Can fetal abdominal wall thickness predict intrapartum complications amongst mothers with pre-gestational type 2 diabetes? A cohort study.
Jafri	Syeda	Food Allergy, Eating Disorders and Body Image: A Narrative Review
Joyce	Kayla	Changes in Maternal Substance Use During the COVID-19 Pandemic
Kereliuk	Stephanie	Multi-omics Profiling of Rat Offspring Exposed to Gestational Diabetes Reveals Cardiometabolic Disease Development with Age
Lanyon	Katrina	A cross-sectional evaluation of fetal ultrasound utilization and acuity during the COVID-19 pandemic.
Lee	JuHae	Assessing the Oral Health Related Quality of Life of First Nations and Metis Children in Manitoba
Levasseur- Puhach	Sydney	Indigenous Child Wellness in Manitoba: A Scoping Review of Canadian and International Best Practices
Loewen	Keely	Prenatal Diet and Infant Sensitization in the CHILD Cohort
MacDougall	William	Age and the Risk of Severe All-Terrain Vehicle-Related Injuries in Children and Adolescents: A Cross Sectional Study of Hospitalized Patients in Canada
Maharjan	Pramila	Methods to improve cast removal experience in the pediatric setting: A systematic scoping review
Mahood	Thomas	Prenyltransferases Regulate Inflammatory Mediator Release by Human Pulmonary Fibroblasts
Mangat	Divleen	Oxidized Phosphatidylcholine Causes Airway Narrowing: Novel Indication for Airway Hyperresponsiveness in Asthma
Martens	Matthew	Protecting the Neonatal Heart: Misoprostol Prevents Hypoxia-Induced Cardiac Dysfunction and Cardiomyocyte Bioenergetic Collapse Through Bnip3 Phosphorylation
McNeill	Shayna	Ethnicity, Immigration and Autism Risk: A Systematic Review of the Literature
Memauri	Tessa	A qualitative exploration of the impact of Covid-19 on families of children with neurodevelopmental disorders
Meng	Bitian	Characterization of bony fish allergy and its relationship with atopic dermatitis in Manitoba children
Merrill	Kaitlyn	Social Well-Being Amongst Children With vs. Without Food Allergy Before and During COVID-19
Mhanni	Aizeddin (Aziz)	Outcome of the Glutaric aciduria type 1 (GA1) newborn screening program in Manitoba: 1980 – 2020
Morriseau	Taylor	Unravelling interactions between sex, diet, and genetics using experimental models of early-onset type 2 diabetes (T2D).
Mostafa	Dina	Sex-related differences in allergen-induced airway inflammation in a murine model
Nikel	Katarina	Examining the relationship between previable PPROM and neurodevelopmental outcomes at 18-24 months of age.
Obi	Patience	A systematic review of the therapeutic effect of extracellular vesicles (EVs) on asthma in pre-clinical models
Onuzulu	Doris	Prenatal cigarette smoke exposure may reprogram offspring lungs in a sex-specific manner
Osagie	Jeffery	Development of A 3D Bio-printed Model of Airway Smooth Muscle — A Novel Paradigm for Studying Airway Mechanics in Asthma
Padda	Amarjot	Is atopic dermatitis associated with delayed resolution of egg allergy in infants?

 $Dosing \ and \ safety \ of \ medical \ cannabis \ in \ children: \ Preliminary \ findings \ from \ a \ living$

Abstract Listing

Read the abstracts on the CHRD website here

Health Characteristics of Transgender Youth Seeking Medical Care in the Trans Youth Penner-Goeke Lara Can! (TYC!) Study Extracellular vesicles (EVs) as predictors of individual response to exercise in obese Pierdoná Taiana Machine Learning Methods and Latent Class Analysis for the Predictive of Early Child Rahman Azizur Ramansiyakumar Samritha COPD and Diabetes: The impact of hyperglycemia on fibroblast phenotype The Next Generation Birth Cohort: Screening for Dysglycemia and Albuminuria in High Rawal Yash Risk Children Asthma Visit Comparison of Manitoba CHILD Study with Source Population and Rawliuk **Thomas** Validation of Administrative Asthma Definitions in Preschool Children Routines as a Protective Factor for Emerging Mental Health & Behavioral Problems in **Rollins** Kathryn Children with Developmental Delays The Intrinsically Disordered Region of the Bowen-Conradi Syndrome Protein Emg1 and Russel Nicole Its Function in Ribosome Assembly Tumor secreted Sonic Hedgehog promotes blood brain barrier integrity in diffuse Sajesh Babu intrinsic pontine glioma (DIPG) The HNF-1a G319S gene variant affects liver metabolism and endogenous glucose Sebastian Manuel production which contributes to early onset Type 2 Diabetes Longitudinal changes in mental health outcomes in Manitoba youth following a sport-Sekundiak Melissa Dynamic placenta-on-a-chip model for screening the interaction of nanoparticles and Shojaei Shahla flow effects Spenard Sarah Osteoporosis Risk Factors in Children with Cerebral Palsy Keeping Kids Busy: Family Factors Associated with Play, Screen Time, and Physical Stienwandt Shaelyn Activity During the COVID-19 Pandemic An Examination of Treating Substance Use in Mothers with Young Children: A Scoping Sulymka Julia Synthesis of Water-dispersible Indium-based Quantum Dots - Efficient and Stable Madhumita Suresh Development of a 3D bioprinted Model of Vascular Smooth Muscle To Study Persistent Syeda Sanjana Pulmonary Hypertension of the Newborn An evaluation of sex differences and socioeconomic deprivation amongst Canadian Susan Telencoe children with high blood pressure SIRT3 Attenuates Doxorubicin Induced Cardiotoxicity by Regulating the Mitochondrial Tomczyk Mateusz Acetylome and Cardiac Lipidome Andrew (Wai Transplacental transfer of IgG-modified nanoparticles by the maternal-fetal transfer of Tse passive immunity for prenatal therapies Hei) A Systematic Review of Language Abilities in Preschool Children with Critical Turner Tegan Congenital Heart Disease Infant feeding, human milk components and child behaviour at age 5 years: Preliminary Turner Sarah results from the longitudinal CHILD Cohort Study Aprotinin and fibrinogen improve the mechanical stability of a 3D bioprinted model of Turner-Brannen **Emily** skeletal muscle Evaluating therapist's perceptions of virtual care for pediatric rehabilitation during the Kaitlyn Tvmko COVID-19 pandemic: Preliminary findings Christine Vaccaro COVID-19 National Lockdowns and Perinatal Outcomes: A Rapid Review Oxidized Phosphatidylcholines Mediate Airway Narrowing by Inducing Airway Smooth Vaghasiya Jigneshkumar Muscle Cell Contraction: Novel Mechanisms and Implications for Asthma Villegas Mira Characterization of Fistulizing Perianal Crohn's Disease in Children The association of albuminuria in youth with type 2 diabetes with in-utero type 2 Wicklow Brandy diabetes exposure is not mediated through altered renal volume Wiebe Meagan Ankyloglossia release: a novel technique

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We are grateful to our valued sponsors, committee members, funders, research partners, trainees, and staff who have all contributed to the success of CHRD and committed to a healthier future for all children – locally, nationally and globally.

