

CANADIAN ORGANIZATION FOR  
GENDER AND SEX RESEARCH

# SECOND INTERNATIONAL CONFERENCE

MONTREAL, QUEBEC  
TERRITORY OF THE KANIEN'KEH:KA NATION

Bringing Gender and Sex Together:  
Transdisciplinary Theories and  
Methodologies

May 29th-31st  
2022

The Nouvel Hotel



[WWW.COGSRESEARCH.CA](http://WWW.COGSRESEARCH.CA)

# LAND ACKNOWLEDGEMENT

## **Territorial acknowledgment**

The Canadian (Kanata) Organization for Gender and Sex (COGS) Research acknowledges that its Second conference is being held on unceded Indigenous lands.

Tiohtià:ke/Montréal is historically known as a gathering place for many First Nations. The Kanien'kehá:ka Nation is recognized as the custodians of the lands and waters on which the conference takes place. Today, it is home to a diverse population of Indigenous and other peoples.

We acknowledge the diverse Indigenous peoples whose presence marks this territory and thank the many generations who have taken care of this land and the waters on which we gather for this event.

COGS is actively engaged in building relationships with Indigenous peoples based on respect, dignity, trust, and cooperation, with the goal of advancing truth, reconciliation and justice.

## **Reconnaissance territoriale**

L'Organisation canadienne (Kanata) de recherche sur le genre et le sexe reconnaît que sa deuxième conférence se tient sur des terres autochtones non cédées.

Tiohtià:ke/Montréal est historiquement connu comme un lieu de rassemblement pour de nombreuses Premières Nations. La Nation Kanien'kehá:ka est reconnue comme la gardienne des terres et des eaux sur lesquelles se déroule la conférence. Aujourd'hui, il abrite une population diversifiée d'Autochtones et d'autres peuples.

Nous reconnaissons les divers peuples autochtones dont la présence marque ce territoire et remercions les nombreuses générations qui ont pris soin de cette terre et des eaux sur lesquelles nous nous rassemblons pour cet événement.

COGS s'engage activement à établir des relations avec les peuples autochtones fondées sur le respect, la dignité, la confiance et la coopération, dans le but de faire progresser la vérité, la réconciliation et la justice.



# PRESIDENT'S WELCOME

Welcome to Montréal, the Canadian Organization for Gender **(COGS) Research 2022 Meeting**, and a year's membership in COGS. Those of us here have a shared purpose: to bring sex and gender together in our thinking and our research and to build the emerging field of **Sex and Gender Science**.

The field in which sex differences and gender are studied with transdisciplinary methodologies, to advance our understanding that neither is independent of the other, and that sex and gender differences happen in the context of the environment and social interactions. The field embraces biological, social, cultural, technological, and human sciences, and tries to understand how genes, environments, social stigma, and other conditions, as well as other intersecting factors, combine to **lead to unique health outcomes, economies, and technological advances?**

We're here to share our thoughts, methods, quandaries, and forward movement. With over 100 registrants, I think you will find the perfect combination of an atmosphere conducive to discussion with the numbers to provide diversity of thought. With Montreal as our host city, we are meeting in the context of a beautiful, bustling city, fine food, and the warmth of Québec comradery.

**Thanks** to our dedicated Executive and our outstanding Programme Committee, chaired by Dr. Annie Duchesne, there is a great program waiting for us — it will stimulate, inform, and energize us with new ideas. I hope you will relish every packed minute.

Our theme this year is **Theories and Methods**. Esteemed keynote speakers, symposia, workshops, posters, and the Institute of Gender and Health trainee talks will bring this theme home elucidating unique transdisciplinary approaches by which to investigate complex issues in Sex and Gender Science. Poster sessions and two Receptions — one, generously sponsored by Heart and Stroke Canada — will give us the chance to get to know each other, network, and share ideas.

I look forward to meeting each of you to learn about your work, solutions, and commitments. Welcome to the COGS family where each of us interdigitates with others to form new practices that will lead to improving the well-being of all.

Warmest best,  
Gillian Einstein, COGS Research President



# MOT DE BIENVENUE DU PRÉSIDENT

Bienvenue à Montréal, au congrès de **l'Organisation Canadienne pour la recherche sur le genre et le sexe (COGS Research) 2022** et à la première année de COGS. Nous avons tous un objectif commun : intégrer le sexe et le genre dans nos réflexions et notre recherche, et de construire le domaine émergent de la science du sexe et du genre.

Ce domaine dans lequel les différences de sexe et de genre sont étudiées avec des méthodologies transdisciplinaires, fera progresser notre compréhension qu'un n'est pas indépendant de l'autre, et que les différences de sexe et de genre se produisent dans le contexte de l'environnement et des interactions sociales. Ce domaine englobe les sciences biologiques, sociales, culturelles, technologiques et humaines, et tente de comprendre comment les gènes, les environnements, la stigmatisation sociale et d'autres conditions, ainsi que d'autres facteurs croisés, se combinent **pour culminer à des impacts sur la santé, l'économie et à des avancées technologiques innovantes.**

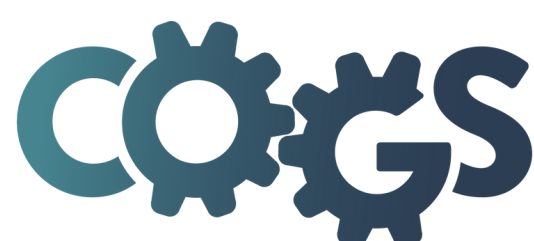
Nous sommes ici pour partager nos réflexions, nos méthodes, nos dilemmes et nos progrès. Avec plus de 100 personnes inscrites, je pense que vous trouverez la combinaison parfaite et une ambiance propice à la discussion pour offrir un échange fructueux. Avec Montréal comme notre ville hôte, nous nous rencontrons dans le contexte d'une belle ville animée, de la bonne bouffe et de la chaleur de la camaraderie québécoise.

**Merci** à notre comité exécutif dévoué et à notre comité de programme exceptionnel, présidé par la Dre Annie Duchesne, qui nous ont préparé un excellent programme, notre rencontre - nous stimulera, nous informera et nous dynamisera avec de nouvelles idées. J'espère que vous apprécierez chaque minute bien remplie.

Notre thème cette année est « **les Theories et les Méthodes** ». Des conférenciers renommés, des symposiums, des ateliers, des affiches et les conférences de nos stagiaires de l'Institut du genre et de la santé, nous aideront à élucider des approches transdisciplinaires uniques permettant d'étudier des questions complexes en sciences du sexe et du genre. Des présentations par affiches et deux réceptions — dont une généreusement parrainée par la fondation de la maladie du Cœur et de l'AVC Canada — nous donneront l'occasion d'apprendre à nous connaître, de réseauter et de partager des idées.

J'ai hâte de rencontrer chacun d'entre vous pour en savoir plus sur votre travail, vos solutions et vos engagements. Bienvenue dans la famille COGS où chacun de nous interagit avec les autres pour former de nouvelles pratiques qui mèneront à l'amélioration du bien-être de tous.

Mes sincères salutations,  
Gillian Einstein, présidente de la recherche COGS



# MESSAGE FROM THE PROGRAM COMMITTEE

With great excitement, we welcome you to the Second conference of the Canadian Organization for Gender and Sex (COGS) Research. With over thirty presentations and fifty scientific posters showcasing multiple perspectives, this year's program is a testament to the thriving gender and sex research field in Canada and, increasingly, around the world!

Entitled: "Bringing Gender and Sex Together: Transdisciplinary Theories and Methodologies," this year's theme focuses on investigative approaches to gender and sex research that emerge from the weaving of different disciplines and world views. In recognizing the interdependency of sex and gender and that sex differences are affected by environmental and social context, COGS is committed to supporting the development of a Sex and Gender Science that is rooted in transdisciplinarity. Cutting across applied and theoretical fields, humanities and sciences, western and Indigenous methodologies, and quantitative and qualitative data, the many presentations and posters selected for the conference demonstrate many ways to realize transdisciplinary gender and sex research.

As an organization devoted to growing Canadian expertise in gender and sex science, one of the missions of COGS is to support the many developing scholars in this field. Aligned with this principle, we developed a program inclusive and supportive of trainees' experiences, which is reflected in various activities such as the workshop on gender measurement, the Heart and Stroke Foundation networking event and the CIHR-IGH oral presentation and poster competitions.

Finally, in the spirit of fostering transdisciplinary engagement, we decided to favour a small, in-person and plenary-only conference format that includes numerous panel discussions in the hope that it facilitates the development of new ideas, initiatives and collaborations between the different members of COGS.

We are looking forward to connecting with you!  
The Program Committee



# MESSAGE DU COMITÉ DE PROGRAMME

C'est avec beaucoup d'enthousiasme que nous vous souhaitons la bienvenue à la deuxième conférence de l'Organisation canadienne de recherche sur le genre et le sexe (COGS Research). Avec plus de trente présentations et cinquante affiches scientifiques présentant de multiples perspectives, le programme de cette année témoigne du domaine florissant de la recherche sur le genre et le sexe au Canada et de plus en plus dans le monde!

Intitulé : « Rapprocher le genre et le sexe : théories et méthodologies transdisciplinaires », le thème de cette année se concentre sur les approches d'investigation de la recherche sur le genre et le sexe qui émergent du tissage de différentes disciplines et visions du monde. En reconnaissant l'interdépendance du sexe et du genre et que les différences entre les sexes sont affectées par le contexte environnemental et social, COGS s'engage à développer une science du sexe et du genre enracinée dans la transdisciplinarité. Recoupant les domaines appliqués et théoriques, les sciences humaines et les sciences naturelles, les méthodologies occidentales et autochtones et les données quantitatives et qualitatives, les nombreuses présentations et affiches sélectionnées pour la conférence démontrent de nombreuses façons de réaliser une recherche transdisciplinaire sur le genre et le sexe.

En tant qu'organisation vouée à la croissance de l'expertise canadienne en sciences du genre et du sexe, l'une des missions de COGS est de soutenir les nombreux chercheurs en développement dans ce domaine. Conformément à ce principe, nous avons développé un programme inclusif et favorable aux expériences des stagiaires qui se reflète dans diverses activités telles que l'atelier sur la mesure du genre, l'événement de réseautage de la Fondation des maladies du cœur et les concours de présentation orale et d'affiches de l'IRSC-IGH.

Enfin, dans l'esprit de favoriser l'engagement transdisciplinaire, nous avons décidé de privilégier un petit format de conférence en personne et en séance plénière qui comprend de nombreuses tables rondes dans l'espoir qu'il facilite le développement de nouvelles idées, initiatives et collaborations entre les différents membres de COGS.

Nous sommes impatients de communiquer avec vous !

Le comité de programme



# PROGRAM COMMITTEE



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University of Northern British Columbia  
Program Committee Chair



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# ORGANIZATIONAL COMMITTEE



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# SCHEDULE AT A GLANCE

SUNDAY, MAY 29TH | 4 PM TO 7 PM

ROOMS: DORCHESTER & ATWATER

4:00 – 4:15 PM	<b>Welcome — Annie Duchesne Chair or the Program Committee</b>
4:15 – 5:15 PM	<b>Presidential Plenary</b> <b>Sex and Gender Science: Integrating the Social with the Biological</b> Gillian Einstein, University of Toronto, Founder and Lead of COGS: <a href="http://einsteinlab.ca">einsteinlab.ca</a>
5:15 – 6:00 PM	<b>Panel discussion</b> <b>Advancing Gender and Sex Research: three perspectives</b> Louise Pilote, McGill University, Co-vice President of COGS Liisa Galea, University of British Columbia, Co-vice President of COGS Gillian Einstein, University of Toronto, Founder and Lead of COGS: <a href="http://einsteinlab.ca">einsteinlab.ca</a> Facilitated by: Annie Duchesne, University of Northern British Columbia, COGS Chair of Program Committee
6:00 – 7:00 PM	<b>Opening Cocktail</b>

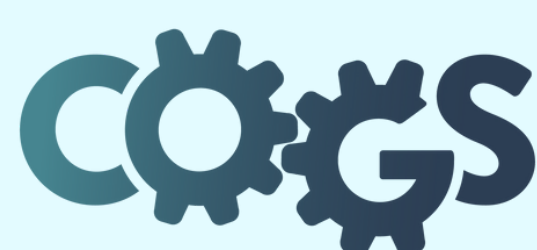


**MONDAY, MAY 30TH | 7:15 AM TO 7:00 PM**  
**ROOMS: ST-MATHIEU, ATWATER & DORCHESTER**

<b>7:15 – 8:00 AM</b>	<b>Continental Breakfast</b>
<b>8:00 – 8:30 AM</b>	<b>Welcome and Opening Remarks</b>
<b>8:30 – 9:30 AM</b>	<b>Keynote</b> <b>Advancing a Transdisciplinary Gender/Sex Science: The GenderSci Lab COVID Project</b> Sarah Richardson, Harvard University, Director GenderSci Lab: <a href="https://scholar.harvard.edu/srichard/home">https://scholar.harvard.edu/srichard/home</a>
<b>9:30 – 10:30 AM</b>	<b>Symposium #1</b> <b>Integration of social and biological perspectives in psychology: Methods for understanding diverse populations</b> Chairperson: Mateja Perovic, University of Toronto Robert-Paul Juster, Université de Montréal Arija Birze, University of Toronto Sari van Anders, Queens University
<b>10:30 – 11:30 AM</b>	<b>Poster session #1 (coffee and light snacks served)</b> Room: Faubourg
<b>11:30 – 12:30 PM</b>	<b>CIHR-IGH trainee awards presentations</b> Chairperson: Jenna Haverfield, Assistant Director, Science Strategy, CIHR-IGH June Lam, University of Toronto Rubee Dev, University of Alberta Sophie Parent, Université de Sherbrooke Yi-Ting Wang, McGill University



12:30 - 1:30 PM	<b>Lunch (lunch boxes, served at the restaurant)</b>
1:30 - 1:35 PM	<b>Welcome back</b>
1:35 - 2:40 PM	<p><b>Symposium #2</b>  <b>Missed opportunities: Addressing the multifaceted field of gender and sex research</b></p> <p>Chairperson: Liisa Galea, University of British Columbia  Travis Salway, Simon Fraser University  Melissa Holmes, University of Toronto  Marie-France Marin, Université du Québec à Montréal  Bonnie Lee, University of British Columbia</p>
2:40 - 3:40 PM	<p><b>Poster session #2 (coffee and light snacks served)</b>  Room: Faubourg</p>
3:40 - 4:55 PM	<p><b>Symposium #3</b>  <b>Sex and Gender: Conceptualizing Sex and Gender from Laboratory to Practice</b></p> <p>Chairperson: Lorraine Greaves, Centre for Excellence in Women's Health  Lorraine Greaves, Centre for Excellence in Women's Health  Sarah Richardson, Harvard University  Stacey Ritz, McMaster University  Nancy Poole, Centre for Excellence in Women's Health</p>
4:55 - 5:30 PM	<p><b>NEW Frontiers in Gender &amp; Sex Research: Artificial Intelligence</b></p> <p>Abhishek Gupta, Founder and Principal Researcher, Montreal AI Ethics Institute  Discussant: Rebekah Reuben PhDc, University of Toronto</p>
5:30 - 7:00 PM	<p><b>Mentoring &amp; Networking event sponsored by Heart and Stroke Foundation</b>  Room: Atwater</p>



**TUESDAY, MAY 31ST | 7:15 AM TO 4:00 PM**  
**ROOMS: ST-MATHIEU, ATWATER & DORCHESTER**

<b>7:15 – 8:00 AM</b>	<b>Continental Breakfast</b>
<b>8:00 – 8:05 AM</b>	<b>Welcome and Opening Remarks</b>
<b>8:05 - 9:20 AM</b>	<p><b>Panel discussion</b> <b>Indigenous research methods and Gender and Sex Research</b></p> <p>Chairperson: Kristin Honshorst, Senior Specialist, Heart &amp; Stroke Foundation</p> <p>Bernice Downey, McMaster University, Heart &amp; Stroke Foundation - Canadian Institute of Health Research - Chair in Indigenous Women's Heart and Brain Health</p> <p>Harlan Pruden, Simon Fraser University, Co-Founder of the Two-Spirit Dry Lab, <a href="http://twospiritdrylab.ca/">http://twospiritdrylab.ca/</a></p> <p><b>Event sponsored by the Heart &amp; Stroke Foundation</b></p>
<b>9:20– 10:30 AM</b>	<p><b>Symposium #4 Female Genital Mutilation/Excision (FGM/E), A Form of Gender-based Violence, Engrained in Traditions and Socio-cultural Meanings with Mental and Physical Consequences: Understanding the Experiences with Multiple Lenses, Personalizing the Response</b></p> <p>Chairperson: Bilkis Vissandjée, Université de Montréal, Scientific Director, RHC for FGC Gender-Net Europe-Canada Project</p> <p>Muna Aden, Women's Health in Women's Hands, RHC for FGC Gender-Net Europe-Canada</p> <p>Mateja Perovic, University of Toronto</p> <p>Angela Deane, North York General Hospital, RHC for FGC Gender-Net Europe-Canada</p> <p>Annick Legault, RHC for FGC Gender-Net Europe-Canada</p> <p>Elise Dubuc, Clinique Sensolia, RHC for FGC Gender-Net Europe-Canada</p>



10:30 – 10:45 AM	<b>Break (Coffee and light snacks served)</b>
10:45 – 12:15 PM	<p><b>Workshop: Gender Measurement</b>  Chairperson: Louise Pilote, McGill University, GOING-FWD GENDER-NET Plus Consortium  Colleen M. Norris, University of Alberta  Valeria Raparelli, University of Ferrara  Monica Parry, University of Toronto  Kyle Warkentin, Patient partner</p>
12:15 – 1:15 PM	<b>COGS Annual General Meeting &amp; lunch (lunch boxes, served at the restaurant)</b>
1:15 - 1:25 PM	<b>Welcome back</b>
1:25 – 2:25 PM	<p><b>Symposium #5</b>  <b>Men’s health and equality promotion - knowledge transfer from Quebec and Nordic countries</b>  Chairperson: Philippe Roy, Université de Sherbrooke  Þórður Kristinsson, University of Iceland  Emil Fosgaard Lund, DareGender, Denmark  Philippe Roy, Université de Sherbrooke</p>
2:25 – 2:45 PM	<p><b>CIHR-IGH oral presentation &amp; poster awards winners ceremony</b>  Chairperson: Cara Tannenbaum, Scientific Director, CIHR - IGH</p>
2:45 - 3:45 PM	<p><b>Keynote</b>  <b>Multidimensionality and Intersectionality in Quantitative Gender and Sex Research</b>  Greta Bauer, Western University, CIHR Sex and Gender Science Chair</p>
3:45 – 4:00 PM	<b>Concluding remarks - Gillian Einstein, President of COGS</b>



# DETAILED SCHEDULE | SUNDAY, MAY 29TH DORCHESTER & ATWATER ROOMS

## 4:00 - 4:15 PM | WELCOME

Annie Duchesne Ph.D., University of Northern British Columbia, Chair Program Committee

## 4:15 - 5:15 PM | PRESIDENTIAL PLENARY: SEX AND GENDER SCIENCE: A PARADIGM SHIFT WHOSE TIME HAS COME

Gillian Einstein Ph.D., University of Toronto, Founder and Lead of COGS

**Abstract:** For decades, researchers have studied aspects of sex and gender; the former as a basic science and health determinant and the latter as a social construct with real-world consequences, including health inequities. In recent years, as our collective understanding of how the social and biological intersect, the realization that sex and gender are interactional and deeply interwoven has deepened. A field called, Sex & Gender Science, is emerging and evolving, combining methods from previously disparate fields to investigate how sex and gender dynamically interact and influence health and the etiology, progress, and treatment of disease and illness in men, women, boys, girls, and gender-diverse people over the life course. In this talk, I will describe the need, growth, current endeavours, and future directions of this important field.

**Bio:** Gillian Einstein is The Wilfred and Joyce Posluns Chair in Women's Brain Health and Aging, Professor of Psychology at the University of Toronto and Guest Professor of Gender and Health at Linköping University in Linköping, Sweden. She is a board member of the International Gender Medicine Society, Chair of the Canadian Institutes of Health's Institute of Gender and Health Advisory Board, and leads the Women, Sex, Gender, and Dementia Cross-Cutting Program for the Canadian Consortium on Neurodegeneration and Aging. She is the founder and president of the Canadian Organization of Gender and Sex (COGS) Research.





Gender and Health Advisory Board, and leads the Women, Sex, Gender, and Dementia Cross-Cutting Program for the Canadian Consortium on Neurodegeneration and Aging. She is the founder and president of the Canadian Organization of Gender and Sex (COGS) Research.

She has published in vision, mood, chronic pain, and the effects of ovarian hormones on women's brain health. Her research focus is on Why more women than men have Alzheimer's disease and what tips the balance at midlife. She is currently funded by CIHR, Brain Canada, the Women's Brain Health Initiative, and the Centre for Aging and Brain Health Innovation to study the cognitive and brain effects of early life ovarian removal and the long-term effects of gender-affirming hormone therapy in aging Trans women.

Professor Einstein uses "Situated Neuroscience" with a combination of qualitative, quantitative, and physiological methods (Very Mixed Methods) to explore how both sex and gender mediate women's brain health. Using qualitative interviewing, large data sets, neuroimaging, biomarker measures, and neuropsychology she tries to understand how the social becomes biological - or, how the world writes on the body.

## **5:15 - 6:00 PM** | PANEL DISCUSSION

Advancing Gender and Sex Research: three perspectives

Louise Pilote, McGill University, Co-vice President of COGS

Liisa Galea, University of British Columbia, Co-vice President of COGS

Gillian Einstein, President of COGS

Facilitated by: Annie Duchesne, University of Northern British Columbia, COGS Chair of Program Committee

## **6:00 - 7:00 PM** | OPENING COCKTAIL



# DETAILED SCHEDULE | MONDAY, MAY 30TH STE MATHIEU, DORCHESTER & ATWATER ROOMS

## 8:00 - 8:30 AM | WELCOME

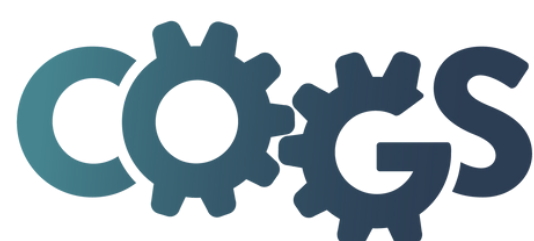
Annie Duchesne Ph.D., University of Northern British Columbia

## 8:30 - 9:30 AM | KEYNOTE: ADVANCING A TRANSDISCIPLINARY GENDER/SEX SCIENCE: THE GENDERSCI LAB COVID PROJECT

Sarah Richardson Ph.D., Harvard University, Director GenderSci Lab

**Abstract:** During the COVID-19 pandemic, the Harvard GenderSci Lab pursued multiple lines of research and outreach to address the challenge of gender/sex disparities in COVID-19 outcomes. Notable work includes publishing the first longitudinal study of gender/sex disparities across US states, characterizing variation and heterogeneity in the direction and magnitude of COVID-19 sex disparities, and a critical reanalysis of a major sex difference claim about the role of sex-based biology in COVID-19 outcomes. This talk describes the Lab's multivalent and interdisciplinary initiatives during the pandemic, situating them in the broader context of the project to advance a transdisciplinary gender/sex science.

**Bio:** Sarah S. Richardson is a Professor of the history of science and of studies of women, gender, and sexuality at Harvard University. A historian and philosopher of science, Richardson is a leading scholar of gender and science whose work argues for conceptual rigour and social responsibility in scientific research on sex, gender, sexuality, and reproduction. She directs the Harvard GenderSci Lab ([genderscilab.org](http://genderscilab.org)), a collaborative, interdisciplinary research lab dedicated to generating concepts, methods, and theories for biomedical research on sex and gender.



## 9:30 - 10:30 AM | SYMPOSIUM #1: INTEGRATION OF SOCIAL AND BIOLOGICAL PERSPECTIVES IN PSYCHOLOGY: METHODS FOR UNDERSTANDING DIVERSE POPULATIONS

Chairperson: Mateja Perovic, MA, Ph.D. student, University of Toronto, Department of Psychology

Symposium Summary: The symposium will examine interdisciplinary methods for integrating social and biological perspectives in psychological research. Dr Robert-Paul Juster will discuss approaches to studying sex and gender factors in allostatic load - "the wear and tear on the body" which accumulates over chronic stress exposure. Laurice Karkaby will present ways to integrate quantitative and qualitative research methods and epistemological perspectives in order to study sexed and gendered experiences of subjective cognitive decline in women at high risk of Alzheimer's disease. Dr. Sari van Anders will discuss the relationship between testosterone, oxytocin and social contexts, with a focus on re-thinking the relationship between gendered behaviours and testosterone. As such, the symposium will cover a range of health, social and physiological contexts whose study requires integration of social and biological perspectives and suggest appropriate, sex and gender-informed, methodological approaches.

**First speaker:** Sari M. van Anders Ph.D., Canada 150 Research Chair in Social Neuroendocrinology, Sexuality, and Gender/Sex; Professor of Psychology, Gender Studies, & Neuroscience; Queen's University

**Title:** Feminist/queer approaches to bioscience with gender/sex

**Abstract:** In this talk, I briefly describe the centrality of gender/sex for feminist/queer science. I provide a quick overview of theoretical, methodological, conceptual, and empirical approaches from my lab. These include (a) Feminist/queer and successor science approaches to biologisms, i.e., that are biological and biologically legible but do not position biology as the only or best way to know about life-related phenomena; (b) the "gender/sex 3x3", a framework for asking about, collecting data on, coding, and analyzing people's gender/sex; (c) "sexual configurations theory", a model of gender/sex and partnered sexuality; and (d) a "gender/testosterone pathway", i.e., impacts of "chronic" gender on trait levels of testosterone. I discuss how these approaches are built with insights from those on the gender/sex/ual margins and are frameworks that are both minority-inclusive and "majority-situating".



**Second speaker:** Robert-Paul Juster Ph.D., Assistant Research Professor, Department of Psychiatry and Addiction, Université de Montréal

**Title:** Transdisciplinary Sex\*Gender Approaches to Stress and Resilience Research

**Abstract:** Sex\*gender represents the interaction of biological, psychological and social factors that shape the health and wellness of men, women, and gender-diverse people. In this presentation, we will explore the neuroscience of stress and resilience as it relates to our research program that endeavors to evolve ever better ways of measuring birth-assigned sex, sex hormones, gender identity, sexual orientation, gender roles, occupational gender roles, gender relations, and institutionalized gender. Transdisciplinary approaches that triangulate the assessment of the stress hormone cortisol, physiological dysregulations (e.g., allostatic load), and mental health provide insights into the impact that psychosocial experience have on brain and behavior. With a focus on the lived experiences of stigma faced by the lesbian, gay, bisexual, transgender, queer, intersex, asexual, and two-spirit communities, we propose that unique combinations of both risk and protective factors are based on health-related behaviors, coping strategies, and resilience pathways.

**Third Speaker:** Arija Birze Ph.D., Postdoctoral Researcher, Factor-Inwentash Faculty of Social Work, University of Toronto

**Title:** Gender in the Flesh: Conformity to norms and the embodiment of workplace stress

**Abstract:** Both gender and work are recognized as significant social determinants of health but research concerning health inequities related to the gendered and emotional intricacies of work are rare. One way to address this gap is to assess gender as the practice of nuanced feminine and masculine societal norms, including workplace emotion norms; as gradational rather than binary. Moreover, an approach that centralizes the embodiment of gendered work best reflects how it is that emotional labour, as a form of stressful gendered body work, 'gets under the skin' to shape health. Thus, following the body/work/gender nexus conceptualisation of the connections between the working body and gendered bodily practices, this talk examines how conformity to gender norms in a high-stress workplace might become visible in the biological body through an assessment of allostatic load. By listening to the stories bodies tell about the lives we experience, we find it is the rigidity of gender structures that influence health through the organisation of work, rather than being a man or woman, male or female, per se.



**10:30 - 11:30 AM** | POSTER SESSION #1

Room: Faubourg

For the complete list of abstracts, please see page 37.

**11:30 AM - 12:30 PM** | CIHR-IGH TRAINEE AWARDS  
PRESENTATIONS

Chairperson: Jenna Haverfield Ph.D., Assistant Director, Science Strategy, CIHR-IGH

### **June Lam, Ph.D. Candidate, University of Toronto**

**Abstract:** Objective: This study compared characteristics of transgender individuals who presented for acute mental healthcare with population-based comparison samples. Methods: This cross-sectional study examined transgender individuals who had a mental health-related emergency department (ED) visit (N=728) or hospitalization (N=454) using health administrative data. The samples were each compared with unmatched and matched comparators. Individuals' sociodemographic and clinical factors were compared. Results: After matching, transgender individuals in both the ED and hospitalization samples were more likely to be in the lowest neighbourhood income quintile, the highest residential instability quintile, and to be diagnosed as having a mood or personality disorder. Conclusion: Transgender individuals have unique factors associated with their acute mental health care presentation.



**Bio:** June Lam is a Ph.D. student in the Clinical Epidemiology & Health Care Research program at the Institute of Health Policy, Management and Evaluation (IHPE) at the University of Toronto. His thesis focuses on using quantitative and qualitative methods to understand transgender and gender diverse Ontarians' experiences of acute mental health care (hospitalizations and emergency department visits) and access to post-discharge mental health care. He is hoping that a better understanding of trans-Canadians' mental health journeys can lead to improvements in the mental health care system.



## Rubee Dev, MPH, Ph.D., University of Alberta

**Abstract:** Background: Sex and gender differences in cardiovascular health (CVH) has not been explored in low- and middle-income countries. The aim of this study was to examine how sex and gendered factors are associated with cardiovascular risk factors of people in South Asia (SA).

Methods: An analysis of the STEPwise approach to surveillance of risk factors for non-communicable disease survey from six SA countries. The outcomes were CVH, a composite measure of STEPS-HEART health index, values from 0 (worst) to 6 (best). Results: Female sex ( $\beta$ : 0.05, 95% CI: 0.01-0.08) was significantly associated with better CVH. Being married ( $\beta_{\text{male}}$ : -0.30, 95% CI: -0.37, -0.23 vs.  $\beta_{\text{female}}$ : -0.23, 95% CI: -0.29, -0.17) and having a household size  $\geq 5$  ( $\beta_{\text{male}}$ : -0.15, 95% CI: -0.24, -0.06 vs.  $\beta_{\text{female}}$ : -0.11, 95% CI: -0.16, -0.04) were associated with poorer CVH, more in males. Conclusion: Among the SAs, gendered factors such as marital status and large household size were associated with poorer CVH.



**Bio:** Rubee Dev is a postdoctoral research fellow in the Faculty of Nursing at the University of Alberta and is involved in GOING-FWD projects. The overarching aims of her project are to integrate sex and gender dimensions in applied health research. Her area of research interest is sex and gender science, chronic disease prevention and management, and health systems research. In particular, much of her work entails extensive research to identify the data gaps and opportunities for action in meeting the needs and strengthening the evidence base in low- and middle-income countries.

## Sophie Parent, Étudiante à la maîtrise, Université de Sherbrooke

**Abstract:** La non-monogamie consensuelle (NMC) désigne l'ensemble des relations dans lesquelles les partenaires consentent à d'autres relations extradyadiques (Conley et al., 2013). Actuellement, entre 2,4% et 4% des canadien·ne·s vivraient leurs relations de façon NMC et une personne sur cinq l'aurait déjà vécu (Fairbrother et al., 2019). Les femmes semblent moins intéressées par la NMC que les hommes et l'on trouve peu d'études sur les expériences vécues des personnes NMC dans les services, ainsi que l'impact que cela peut avoir sur celles-ci (Brewster et al., 2017).



L'objectif de la recherche serait de comprendre la réalité des femmes NMC au Québec, en documentant leur vécu relationnel, ainsi que leurs expériences des services de santé et des services sociaux reçus, par le biais d'entrevues semi-dirigés. La théorie du stress minoritaire (Meyer, 2003) serait utilisée, ainsi que l'analyse féministe intersectionnelle (Crenshaw, 1991), afin de voir si elle s'applique au vécu des femmes NMC.

**Bio:** Etudiante à la maîtrise en service social - Je travaille dans le domaine de l'intervention depuis 2016 et suis travailleuse sociale depuis 2019. J'ai principalement exercé auprès de victimes de violence conjugale, mais aussi auprès des autochtones et dans un PAE avant cela. C'est la COVID-19 qui m'a ramenée sur les bancs d'école, où j'ai décidé d'aller me chercher une maîtrise et de m'intéresser un peu plus à la recherche! Mes principaux sujets d'intérêt sont les questions de sexe et de genre, ainsi que la marginalité et l'exclusion sociale. Mon projet de recherche porte sur la non-monogamie consensuelle chez les femmes au Québec.

### **Yi-Ting Wang, Ph.D. Candidate, McGill University**

**Abstract:** Apolipoprotein E gene (APOE) is the most important genetic risk factor for sporadic Alzheimer's disease (AD). Although APOE has been suggested to have a stronger effect on women as compared to men, it remains unclear how APOE potentiates sex-dependent regional vulnerability to tau pathologies and neuroinflammation. In this study, we utilized PET imaging data from the TRIAD cohort at McGill Centre for Studies in Aging. PET radioligands [18F]AZD4694, [18F]MK6240 and [11C]PBR28 were used to assess amyloid- $\beta$ , tau and neuroinflammation respectively. Results showed no significant APOE effects on either tau or neuroinflammation in men. In contrast, female APOE $\epsilon$ 4 carriers had a significantly higher tau burden in the hippocampus, entorhinal and parahippocampal cortices. Higher neuroinflammation level was also seen in female APOE $\epsilon$ 4 carriers than in non-carriers. In conclusion, this study provides evidence that APOE modulates early tau deposition and neuroinflammation in a sex-dependent manner.



**Bio:** Tina is a Ph.D. candidate working on sex differences in Alzheimer's disease. The goal of Tina's research is to understand how sex modulates AD pathologies including amyloid, tau and neuroinflammation. Tina will combine neuroimaging (with a focus on Positron Emission Tomography), fluid biomarkers and genetics to elucidate the sex difference in relation to AD etiology and progression



**12:30 - 1:30 PM | LUNCH**

**1:30 - 1:35 PM | WELCOME BACK**

**1:35 - 2:40 PM | SYMPOSIUM #2: MISSED OPPORTUNITIES: ADDRESSING THE MULTIFACETED FIELD OF GENDER AND SEX RESEARCH**

Chairperson: Liisa Galea Ph.D., University of British Columbia, Co-vice President of COGS

Symposium Summary: Sex and gender differences exist in disease with disparities noted in women, sexual, racial, ethnic, and gender minorities. Funding agencies enacted policies to ensure researchers include sex/gender in their work due to the recognition that most research was based on males/men. Speakers will discuss whether the current focus on SGBA goes far enough. How do female experiences, like hormone-use (Marin) and pregnancy (Lee), or Two-Spirit experiences (Salway) contribute to health outcomes. By failing to prioritize different populations, not only will we always use the comparator of the colonizer/men/male norm, but we will fail to understand the importance of discovery within sex and gender. Holmes will use the naked mole-rat as a powerful example of a diverse model system that informs beyond the sex binary. This symposium explores why the specialization of within sex/gender and intersectional approaches are needed in animal models and in human studies to improve precision medicine for all.

**First speaker:** Bonnie Lee, Ph.D. Candidate, University of British Columbia

**Title:** Sex, genotype and female-specific factors influence Alzheimer's disease endophenotypes

**Abstract:** Striking sex and gender differences exist in disease pathogenesis and progression. For example, in Alzheimer's disease (AD), females experience greater lifetime risk, more severe neuropathology, and faster cognitive decline compared to males. Interestingly, these sex differences are exacerbated by the APOEε4 genotype. Data shows that sex and APOEε4 genotype interact to alter AD biomarker levels, neuroplasticity, and cognitive decline in AD. However, besides studying differences between males and females, female-unique experiences like pregnancy history can also contribute to health outcomes and AD risk, and need to be considered. Indeed, previous pregnancy experience decreases evidence of brain aging in middle age but may increase the risk for AD, depending on factors like the number of pregnancies and APOEε4 genotype.





I will present research that illustrates how examination of sex, APOEε4 genotype, and pregnancy history can offer valuable insight on etiology and treatment approaches for AD.

**Second Speaker:** Marie-France Marin Ph.D., Université du Québec à Montréal

**Title:** Beyond sex differences: the impact of endogenous and exogenous sex hormones on cognitive functions and mental health

**Abstract:** Through their inhibitory action on endogenous sex hormone secretion, oral contraceptives (OC) modulate various brain regions' activity and functions. So far, the current use of OC has mostly been documented, leaving undocumented the potential residual effects following OC use cessation. One of our laboratory's research orientations is to characterize the effects of OC on cognition and mental health in young women and to explore whether past OC users resemble more current OC users or never users. Two studies will be reviewed. Firstly, pilot data pertaining to the relationship between sex hormone levels and cognitive functions will be presented for naturally cycling women and current OC users. Then, secondary analysis from a longitudinal study on mental health during COVID will highlight sex differences as well as OC effects, both current and residual. This presentation will shed some light on the contribution of endogenous and exogenous sex hormones to cognition and mental health.

**Third speaker:** Travis Salway Ph.D., Simon Fraser University

**Title:** Lost in Translation: Addressing the multidimensionality of gender and sex research

**Abstract:** Two-Spirit is a term increasingly used to reconnect Indigenous Peoples of Turtle Island to diverse gender roles that have been traditionally honoured in many Indigenous Nations. Although Two-Spirit is often positioned alongside western LGBTQ+ identities, Two-Spirit has a distinct purpose for Indigenous Peoples and offers a radically different way of conceiving gender and sexuality than western understandings. Using data collected by the Community-Based Research Centre and analyzed and interpreted by the Two-Spirit Dry Lab (Lab), we will show how Two-Spirit intersects with while not being interchangeable with LGBTQ+ identities and experiences. We will demonstrate why and how Two-Spirit research methods need to be supported and expanded, drawing on lessons from the work of the Lab. Finally, we will show that settler-ally (non-Indigenous) researchers have an important role to play in collecting culturally safe and affirming data for Two-Spirit communities.



**Fourth speaker:** Melissa Holmes Ph.D., University of Toronto

**Title:** Beyond the binary of sex? The importance of studying different organisms for sex and gender research

**Abstract:** Nature has been experimenting with sex and gender for millennia. Diverse animal species have unique mechanisms of sex determination and sexual differentiation, and often display species-specific patterns of sociosexual behaviours. My lab studies a non-traditional rodent species: naked mole-rats. These animals are considered eusocial mammals because they live in large colonies with strict social and reproductive hierarchies; a single reproductive female, called 'the queen,' is dominant and maintains social cohesion in the group. Our work demonstrates a remarkable reduction in sex differences in brain and behaviour compared to other rodents and, interestingly, that latent sex differences can emerge in certain social contexts. By studying species with differing social organization and reproductive adaptations, we are better able to understand how evolutionary pressures and an individual's social environment sculpt the brain and behaviour.

**2:40 - 3:40 PM | POSTER SESSION #2**

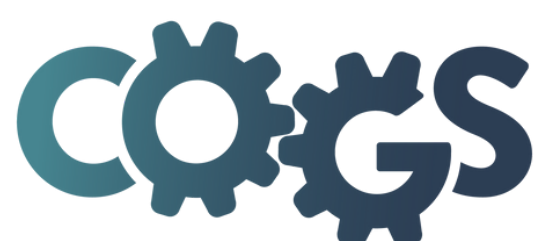
Room: Faubourg

For the complete list of abstracts, please see page 39

**3:40 - 4:55 PM | SYMPOSIUM #3: SEX AND GENDER:  
CONCEPTUALIZING SEX AND GENDER FROM LABORATORY  
TO PRACTICE**

Chairperson: Lorraine Greaves Ph.D., Senior Investigator, Centre of Excellence for Women's Health

Symposium summary: This symposium will discuss precision and clarification of concepts underlying sex and gender science, SGBA+, and EDI initiatives and explore their applications in health oriented biomedical research, policy, practice, and implementation. Although sex and gender considerations are often taken up from *sex differences* or *gender-specific perspectives*, sex contextualism and gender transformative approaches are also valuable and important frameworks for broadening and expanding views about how sex- and gender-related factors influence health, and how we can intervene in ways that promote health equity. This symposium will discuss the value of increased precision and clarification of concepts underlying sex and gender science, SGBA+, and EDI initiatives and explore their applications in health-oriented research, policy, practice, and implementation.



**First speaker:** Lorraine Greaves Ph.D., Centre of Excellence for Women's Health

**Title:** Mapping sex and gender in research, policy, and practice

**Abstract:** In recent decades, calls for the integration of sex and gender considerations in health research, policy, and practice have proliferated. As a result, the body of work in this area manifests a diverse range of conceptual frameworks, discourses, methods, and perspectives that fall under the broad aim of addressing sex and gender considerations in health research, policy, and practice. Lorraine Greaves will map out the landscape with respect to the various ways that sex and gender have been taken up and operationalized in various research and policy settings with a view to increasing precision and enhancing conceptual clarity.

**Second speaker:** Sarah Richardson Ph.D., Harvard University

**Title:** Sex Contextualism in Health Research

**Abstract:** The frameworks used to understand 'sex' have material consequences for the implementation of mandates to incorporate sex in health research. For example, in 2014, the National Institutes of Health announced their intention to begin requiring all NIH-funded preclinical research to incorporate 'sex as a biological variable', principally conceptualized around a directive to include both male and female subjects, animals, or materials in the work. Sarah Richardson will illustrate how the conceptualization of sex has implications for its material and pragmatic operationalization in research and discuss how sex contextualism offers a lens that can help to avoid the problems of binary sex essentialism in biomedical and health research.

**Third speaker:** Stacey Ritz Ph.D., McMaster University

**Title:** Gender/sex-transformative biomedical research

**Abstract:** Biomedical research must confront a unique set of challenges in the incorporation of sex and gender considerations. Gender and sex are complex and dynamic constructs, often difficult to reconcile with the epistemological commitments and practical constraints of experimental laboratory research that depend on animal or in vitro models. It is valuable to become less reliant on male-female comparisons, and take up more mechanism-oriented and context-driven approaches to understanding the influence of sex- and gender-related factors. Stacey Ritz will discuss how more nuanced conceptual understandings of sex and gender and alternative practices of data visualization, statistical analysis, and scientific rhetoric can be useful tools for biomedical scientists who want to take a more transformative approach to the incorporation of sex and gender.



**Fourth speaker:** Nancy Poole Ph.D., Centre of Excellence for Women's Health

**Title:** Integrating sex and gender in practice: illustrations from the substance use field

**Abstract:** A gender-transformative framework can be a powerful tool for designing health interventions. Where gender-specific interventions acknowledge gender norms and consider the specific needs of men, women and gender diverse people, a gender-transformative framework enacts interventions that also reduce the underlying causes of gendered health inequities so that we might mitigate and transform them. Nancy Poole will use examples from the field of substance use to illustrate the application of gender transformative principles in practice.

**4:55 PM - 5:30 PM | NEW FRONTIERS IN GENDER & SEX RESEARCH: ARTIFICIAL INTELLIGENCE**

Abhishek Gupta, Founder and Principal Researcher, Montreal AI Ethics Institute

**5:30 - 7:00 PM | MENTORING & NETWORKING EVENT SPONSORED BY HEART AND STROKE FOUNDATION**



# DETAILED SCHEDULE | TUESDAY, MAY 31ST STE MATHIEU, DORCHESTER & ATWATER ROOMS

**7:15 - 8:00 AM** | CONTINENTAL BREAKFAST

**8:00 - 8:05 AM** | WELCOME AND OPENING REMARKS

**8:05 - 9:20 AM** | PANEL DISCUSSION: INDIGENOUS RESEARCH METHODS AND GENDER AND SEX RESEARCH

Chairperson: Kristin Honshorst MSc., Senior Specialist, Heart & Stroke Foundation

Bernice Downey Ph.D., McMaster University, Heart & Stroke Foundation - Canadian Institute of Health Research - Chair in Indigenous Women's Heart and Brain Health

Harlan Pruden, Simon Fraser University, Co-Founder of the Two-Spirit Dry Lab,  
<http://twospiritdrylab.ca/>

Event sponsored by the Heart & Stroke Foundation

**Abstract:** The Heart and Stroke Foundation advises that there is a gender gap between men and women in health promotion, diagnosis, treatment and research with women lagging behind in all areas. For Indigenous women, this inequality is more severe because of many historic and present-day factors including higher rates of extreme poverty, poor access to health, education, healthy food and clean water. Indigenous women also experience a fifty-three percent higher mortality rate compared to non-Indigenous women in Canada. The research study 'Mending Broken Hearts- Odayammin Project' aims to work in partnership with three Indigenous communities. In this time of reclamation and resurgence of Indigenous-based, self-determining scholarship, Indigenous researchers are exploring and shaping methods that are culturally relevant and express the Indigeneity of the people they are working with. This mixed methods, community-based collaborative project employs a self-determining approach to research co-creation by and with the communities.



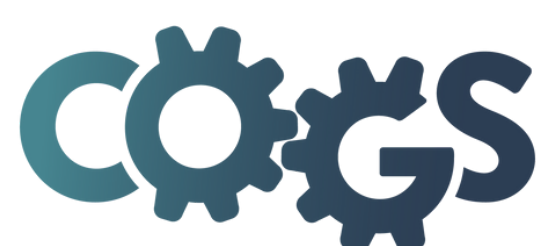
**Bio.** Dr. Bernice Downey is an Anishinaabe-kwe (Indigenous woman) of Ojibwe - Saulteaux and Celtic heritage, a mother and a grandmother. She is a former nurse, a medical anthropologist and is currently cross-appointed with the Department of Psychiatry and Neuro-Behavioural Sciences & the School of Nursing in the Faculty of Health Science at McMaster University. She is also recently appointed as the inaugural Associate Dean, Indigenous Health for the Faculty of Health Sciences. Her research interests include health literacy and Indigenous Traditional knowledge and health/research system reform for Indigenous populations. She currently holds a Heart & Stroke Foundation - Canadian Institute of Health Research - Chair in Indigenous Women's Heart and Brain Health. She is committed to addressing anti-Indigenous racism and the promotion of Indigenous self-determining approaches in health equity and system reform.



**9:20 - 10:30 AM | SYMPOSIUM #4: FEMALE GENITAL MUTILATION/EXCISION (FGM/E), A FORM OF GENDER-BASED VIOLENCE, ENGRAINED IN TRADITIONS AND SOCIO-CULTURAL MEANINGS WITH MENTAL AND PHYSICAL CONSEQUENCES: UNDERSTANDING THE EXPERIENCES WITH MULTIPLE LENSES, PERSONALIZING THE RESPONSE**

Chairperson: Bilkis Vissandjée Ph.D.

Symposium summary: Equitable and gender-sensitive care to women and girls who have experienced FGM/E is a challenge in immigrant host societies for adequate access to health and social care and resources. The aim is to discuss facets and determinants of access to sensitive healthcare and legal advice for women and girls who underwent or are at risk of FGM/E, using intersecting lenses and methods. Speakers from diverse and intersecting fields will feature respective expertise in reference to: 1 quantitative, qualitative, and physiological methods in order to understand how women who underwent FGM/E experience chronic neuropathic pain; 2 multifactorial, multidisciplinary and psychosexual implications of accessing and undergoing clitoral reconstruction; 3 gender-sensitive interpretation of persecution when it comes to asylum claims of women and girls alleging having experienced or fearing FGM/E; 4 tools to inform and train for sensitive and timely clinical care, adequate referral and community support.



**First speaker:** Angela Deane, Obstetrician Gynecologist, Department of Obstetrics and Gynaecology, University of Toronto, North York General Hospital, Toronto, ON

**Title:** Reproductive Health and Wellbeing of Women who have Undergone FGC/M: Multifactorial and Ethical Implications of Clitoral Reconstruction

**Abstract:** Over the past years, much effort has been put in trying to improve quality of life and access to adapted health services for women and girls who are living with adverse effects of FGM/E. One such effort is offering clitoral reconstruction, a surgical intervention which has been reported to reduce clitoral pain and improve sexual pleasure among many women. While clitoral reconstruction is increasingly requested and performed in migrant-host countries, it holds risks and is not suitable for all women who have undergone FGM/E. This presentation will allow for a discussion on the multifactorial, ethical, multidisciplinary and psychosexual implications of assessing women's needs and embodied sexuality when it comes to undergoing clitoral reconstruction.

**Second speaker:** Mateja Perovic, Ph.D. Student, Department of Psychology, University of Toronto; Researcher, Einstein Lab, Department of Psychology, University of Toronto

**Title:** Are you in pain if you say you are not? Accounts of pain in Somali-Canadian women with female genital cutting

**Abstract:** Pain is a complex phenomenon that cannot be understood solely in biomedical terms, considering the fact that its perception is impacted by sociocultural, emotional, and cognitive factors. While few studies have examined the effects of FGM/E on the central nervous system, it is likely that FGC could lead to neurological outcomes such as chronic neuropathic pain. Potential FGM/E-induced chronic pain syndrome could also manifest elsewhere in the body, affecting daily function. In this presentation, it is proposed to discuss the results of a study carried out through the use of mixed-methods - quantitative, qualitative, and physiological - in order to better understand how women who underwent FGM/E experience chronic neuropathic pain. Implication of these results for healthcare providers will be discussed, as well as recommendations for further research in regard to mechanisms of neuropathic pain in women with FGC from a sex and gender perspective.

**Third speaker:** Muna Aden, Research Coordinator, Women's Health in Women's Hands, RHC for FGC Gender-Net Europe-Canada Project

**Title:** Supporting and Caring for Women who have Undergone FGM/E: Tracking Pathways of Care and Community Involvement in Training Packages in Canada

**Abstract:** Equitable and gender-sensitive care to women and girls who have experienced FGM/E is a challenge in immigrant host societies for adequate access to



health and social care and resources. To respond to this challenge, many concerted efforts have been put in place, internationally and nationally, to develop resources to inform and train healthcare and social services providers for culturally and gender-sensitive clinical care. However, it is reported that many healthcare and social services providers in receiving countries are either not aware of the existent resources or are facing challenges in identifying the most fitted resources to consult depending on their expertise or the nature of the clinical interaction with women and girls. It is proposed to discuss the current state of tools to inform health and social services providers in Canada, as well as the contribution of an intersectoral approach for adequate referral and community support.

**Fourth Speaker:** Annick Legault, Immigration Lawyer and Collaborator, RHCforFGC Gender-Net Europe-Canada Project - Sharing Actions and Strategies for Respectful and Equitable Health Care for Women with FGC

**Title:** Gender-sensitive interpretations of decisions rendered with the Canada Refugee Appeal Division in Canada regarding requests by Nigerian girls alleging having undergone or fearing FGM/E

**Abstract:** In the international legal arena, the practice of FGM/E represents a form of persecution against women and girls and is conceived as a violation of international human rights. Ongoing migration to Canada from a wide variety of countries has led to an increased number of women and girls who may have undergone FGM/E or who are at risk of undergoing such procedures. This has led to a rising influx of women and girls seeking a refugee status based on persecution or a fear of persecution on FGM/E-related grounds. However, FGM/E as a ground for asylum has been reported to reveal a certain level of misunderstanding, limited awareness regarding gender-related dimensions, thereby perpetuating a risk of denying women and girls protection against human right violations. In this presentation, it is proposed to discuss the methodological process and results of a study aiming to carry out an analysis of decision rendered with the Refugee Appeal Division in Canada regarding requests by Nigerian girls alleging having undergone or fearing FGM/E, as well as the gender-sensitive interpretation of persecution when it comes to these asylum claims. Nigerian nationals account for a significant percentage of Canada's refugee claimants.

**Fifth speaker:** Bilkis Vissandjée Ph.D., Full Professor, School of Nursing, University of Montreal Scientific Director, RHCforFGC Gender-Net Europe-Canada Project - Sharing Actions and Strategies for Respectful and Equitable Health Care for Women with FGC Researcher, SHERPA University Institute, CIUSSS West-Central-Montreal Researcher, Centre for Public Health Research, University of Montreal, CIUSSS South-Central-Montreal





**Title:** Words Matter, Numbers Matter: Counting with Sensitivity

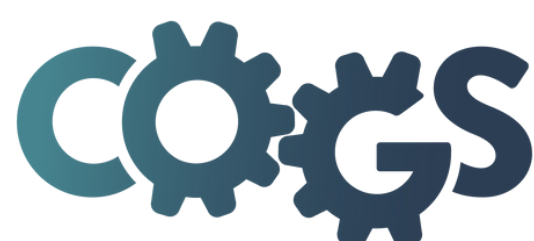
**Abstract:** Increased immigration from countries where the practice of FGM/E has been reported has led to a growing number of women and girls who have undergone FGM/E or are at-risk of undergoing such procedures. In an attempt to derive and implement sensitive policies as well as guidelines to secure a proper access to at least legal, health and social services, most receiving countries have refined estimates of FGM/E prevalence. While at this time, estimates of FGM/E prevalence are not available for the Canadian context, reports have been published in many European countries as well as in the United States over the past decades. During this presentation, it is proposed 1-discuss the challenges, benefits, harms and mitigation strategies when it comes to data collection, analyses, and interpretation, as well as the publication of sensitive data; and 2- reflect on the added value of empirical evidence for such data to claim support for sensitive and personalized programs as well as sustainable and coherent policies, to better reach out and serve girls, women and families experiencing or at risk of FGM/E.

**10:30 - 10:45 AM | BREAK (COFFEE AND LIGHT SNACKS SERVED)**

**10:45 - 12:15 PM | WORKSHOP: GENDER MEASUREMENT**

Summary: Gender refers to the roles and expectations attributed to men and women in a given society, that varies over time, place, and life stage. Gender has an impact on health in a variety of ways impacting both male and female. Disentangling the impacts of sex and gender in understanding male and female differences is increasingly recognized as an important aspect for advancing research and addressing knowledge gaps in the field of health. However, achieving this goal in secondary data analyses where direct measures of gender have not been collected is challenging. Hence, the aim of this workshop would be to discuss how gender is measured in a retrospective as well as prospective study.

Brief description of activities: On the day of the workshop, we will give a brief overview of what participants are going to learn and how those skills will help them achieve their goals in measuring gender in retrospective as well as prospective study. The workshop will include presentations from the experts in the field of gender science that will be followed by a facilitated group session on gender measures. In this, participants will be divided into different groups and will be asked to identify gender variables either from the data dictionary provided by the workshop organizing team or from the identified datasets from the group.



## Learning Objectives:

- At the end of this workshop, participants will be able to:
- Understand how sex and gender can be measured in research/practice.
- How do we engage patient partners in sex and gender research?
- Identify gender-related variables in pre-existing databases.

## Speakers:

- Dr. Colleen M. Norris: Presentation on how to define sex and gender (10 min)
- Kyle Warkentin (Patient partner): Discussion on patient perspective based on sex and gender factors; video (introduction as a caregiver of mother) (10 min)
- Dr. Valeria Raparelli: Presentation on clinical perspective (10 min)
- Dr. Louise Pilote: Sharing a database (PRAXY questionnaire) to identify gender factors (5 min) Dr. Monica parry: Discussion about how to integrate patient perspective in research (5 min)

**12:15 - 1:15 PM | LUNCH**

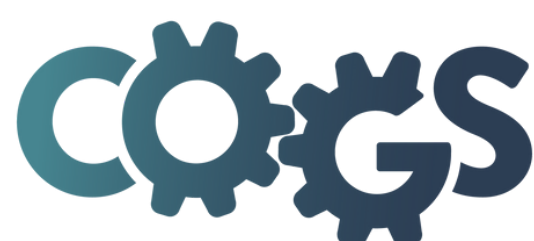
COGS Annual General Meeting & Lunch Room

**1:15 - 1:25 PM | WELCOME BACK**

**1:25 - 2:25 PM | SYMPOSIUM #5: MEN'S HEALTH AND EQUALITY PROMOTION - KNOWLEDGE TRANSFER FROM QUEBEC AND NORDIC COUNTRIES**

Chairperson: Philippe Roy Ph.D., Université de Sherbrooke, Canada

Symposium summary: Quebec and Nordic countries are very productive in research on men and masculinities, notably on health, wellbeing and equality. While research is usually available in English through academic journals across the world, knowledge transfer (KT) is mostly done in the national language where activities take place. Because of the language barrier, this expertise remains unknown outside respective nations. Research-based knowledge supports men's health policies and is transferred into equality and health and wellbeing practice at the individual, group and national level, training for professionals (teachers, social workers, psychologists, etc.). This symposia offers the opportunity to share how community work, research, practice and policies influence each other in Quebec and Nordic countries. The presentations will identify KT best practices, including their theoretical and empirical bases, facilitating factors and obstacles.



**First speaker:** Thordur Kristinsson, Ph.D. student, a teacher at Kvennaskólinn í Reykjavík and lecturer at GRÓ-GEST, the University of Iceland and more

**Title:** Man size: from hesitant to engaged

**Abstract:** Iceland has earned a reputation for being quite progressive when it comes to gender equality. Like elsewhere most of the focus of gender equality and the heavy lifting has been on women. In this workshop we will look further into what has been gained and where work still needs to be done with a special focus on the sexual culture and sexual health of young men in Iceland. A special emphasis is on how the educational system has been put to good use in engaging men in work towards gender equality. Thordur Kristinsson will share some best practices from his two decades of working towards engaging men inequality both in Iceland and in his participation in development projects. He will also share some of his favourite failures.

**Second speaker:** Emil Fosgaard Lund, cand.scient (Chemistry & Communication), Researcher and Board Member at DareGender

**Title:** Creating constructive communities for (young) men at risk – projects from DareGender, a Danish NGO.

**Abstract:** At DareGender, we strive to engage people and in particular men in promoting gender equality while also working with some of the issues that men are dealing with. DareGender's work is focused on mental well-being, violence prevention and redefining masculinity. We do this by creating inclusive and reflective spaces for conversation and debate about gender, men and masculinities. Emil will talk about some of DareGender's projects – which includes group sessions done in nature which are facilitated by volunteers at DareGender and are based on research and proven methods.

**Third Speaker:** Philippe Roy Ph.D., Professor, School of Social Work, Université de Sherbrooke, Canada

**Title:** Quebec's Model for Men's health: bridging the gap between gender, social and health research.

**Abstract:** The province of Quebec Canada stands for its progressive policies, practice, and research in regard with fatherhood and men's health, such as the first Men's health policy in North America. However, many initiatives that lead to this policy – or derived from – remain largely unknown outside of French-speaking regions. This presentation seeks to make Quebec's model available for an international audience and to engage a discussion about gender and health issues. The main focus is to review the key milestones at the community and institutional levels that brought up this model. Challenges and limits are discussed within a socio-political perspective. Closing remarks to the inclusion of men's health content in university courses.



## 2:25 - 2:45 PM | CIHR-IGH ORAL PRESENTATION & POSTER AWARDS WINNERS CEREMONY

Chairperson: Cara Tannenbaum, Scientific Director, CIHR - IGH

## 2:45 - 3:45 PM | KEYNOTE: MULTIDIMENSIONALITY AND INTERSECTIONALITY IN QUANTITATIVE GENDER AND SEX RESEARCH

Greta Bauer Ph.D., Western University, CIHR Sex and Gender Science Chair

**Abstract:** More fully incorporating sex- and gender-based analysis plus (SGBA+) approaches into epidemiology and other quantitative health research fields will require more nuanced approaches to sex and gender multidimensionality (the “SG”) and to intersectionality (the “+”). While distinctions between biological sex and social gender are common, both are themselves multidimensional constructs. A framework will be presented to guide researchers in thinking through dimensions of sex, gender, a non-differentiated sex/gender, and transness, as well as an overview of methods that may be useful in incorporating the core intersectional idea of relationality to study the intersections of different dimensions of sex, gender, race, ethnicity, social class, sexual orientation, and other social identities or positions.

**Bio:** Greta Bauer is a Professor in the Department of Epidemiology and Biostatistics in the Schulich School of Medicine & Dentistry, and a CIHR Sex and Gender Science Chair. Dr. Bauer came to Western after completing her PhD at the University of Minnesota School of Public Health, and brings a strong public health focus to her work. Her primary research interests are in social marginalization and health, particularly as related to sexual and gender minority communities, and in quantitative research methodology for studying communities that experience marginalization.



## 3:45 - 4:00 PM | CONCLUDING REMARKS

Gillian Einstein Ph.D., University of Toronto, Founder & Lead of COGS



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3	Lydia Labrie	Sex Differences in a Combined Respiratory Syncytial Virus – House Dust Mite Asthma Model
5	Julia Tesolin	“Boys Love Boy Toys”: A Qualitative Study Exploring the Role of Fathers in Young Boys’ Gendered Toy Preferences
7	Belaid Loubna	Promoting gender equity in a home visits programme: A qualitative study in Northern Nigeria
9	Isabell C. Pitigoi	Age, gender, and task modulation of eye blink behaviour in humans
11	Marimée Godbout-Parent	Relevance of gender-tailored promotion of exercise as part of the multimodal treatment of chronic pain
13	Madison Leggatt	"Too much pain, doctor!": Capturing clinical cues of gender-mediated presentations of psychosocial distress among culturally diverse patients in primary care encounters.
15	Louis Cartier	Sex and Gender Correlates of Sexually Polymorphic Cognition
17	Tanya Capolicchio	Tetrahydrocannabinol (THC) in adolescence dysregulates the signaling pathway that orchestrates dopamine development
19	Sacha Williams	Impact of Gender on Pediatric Surgical Care in Africa

21	Laila Chaudhry	The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test
23	Andreea Brabete	Assessing the inclusion of sex and gender in cannabis research: Evidence from the Sex, Gender and Cannabis Hub
25	Amanda Chalupa	Barriers and opportunities for the LGBTQIA2S+ community in the Canadian tech industry: Results of a literature review and mixed-methods study.
27	Madelyn Byra	Examining sex-based differences in markers of cardiovascular health in children with a Chronic Inflammatory Disease
29	Jesse Lacasse	The influence of sex and hormonal contraceptives on sensitivity to changing rewards in a model-based learning task.
31	Kiranjot Jhaji	Mind Over Menstruation: Towards an Integrative View on How the Menstrual Cycle Influences Brain and Behaviour
33	Samuel Richer	The Vulnerability to Social Stress in Adolescence is Sexually Dimorphic
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37	Janna R. Shapiro	Stop 'controlling' for sex and gender in health research: Examples from influenza and COVID-19 vaccine research
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41	Jonathan Houle	Gendered Social Determinants of Health and the Risk of Thromboembolic Events and Bleeding in Atrial Fibrillation
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## 1) Feminine males and masculine females are at higher risk of psychiatric symptoms, depending on their personality Traits

Mathias Rossi, Université de Montréal

Gender-roles and personality traits impact mental health. This study investigates the associations between gender-role identity and anxiety, depressive, and suicidal symptoms, as well as the moderating effects of personality traits in a large sample from the general population (N = 741, 65.7% females). Results revealed that self-endorsing a gender-role reversed to one's birth-assigned sex (i.e., feminine gender-role in males and masculine gender-role in females) was associated with poorer mental health (i.e., more anxiety and depressive symptoms). This effect was stronger in males where femininity was positively associated with more suicidal thoughts and behaviors. Further analyses revealed that only low-extroverted feminine males reported higher anxiety, and only high-neurotic feminine males reported higher suicidality. The present study highlights the importance of considering both birth-assigned sex and personality traits when studying gender-role effects on psychiatric symptoms.

## 2) Psychoneuroendocrine stress reactivity protocol among sexual and gender diverse couples

Silke Jacmin-Park, University of Montreal, Dr. Sophie Bergeron, Full Professor, Department of Psychology, University of Montreal, Dr. Robert-Paul Juster, Assistant Professor, Department of Psychiatry and Addiction, University of Montreal

Partner support has been found to attenuate salivary cortisol secretion in heterosexual couples faced with a psychosocial stressor. Recent studies suggest this effect may be shaped by relational processes including attachment and perception of partner responsiveness. Lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals may be especially vulnerable to attachment difficulties and chronic stress stemming from stigma and discrimination. Yet few studies have examined associations between partner support, attachment, and cortisol secretion among sexual and gender diverse couples. This study aims to assess endocrine stress functioning among 120 LGBTQ+ couples faced with the Trier Social Stress Test and examine the moderating roles of attachment and perceived partner responsiveness. The statistical analysis plan and study protocol – including repeated saliva sampling, filmed interactions between partners and administration of validated questionnaires – will be presented.

## 3) Sex Differences in a Combined Respiratory Syncytial Virus – House Dust Mite Asthma Model

Lydia Labrie, Haya Aldossary, Véronique Gaudreault, Brian J. Ward, Elizabeth D. Fixman, Research Institute of McGill University Health Centre

Epidemiological data associate early-life respiratory syncytial virus (RSV) infection with a heightened risk of asthma development. While sex-related disparities exist in asthma epidemiology and morbidity, the mechanisms are not clear. We are characterizing mechanisms by which a small protein inhibitor, STAT6-IP, provides protection in murine models of asthma. Young mice are infected with RSV, then exposed to house dust mite (HDM). We hypothesize that RSV will enhance HDM-induced allergic lung inflammation more dramatically in females and STAT6-IP delivery at the time of RSV infection will reduce this response. Our data demonstrate that eosinophil activation, accumulation of ILC2 and IL-13 expressing CD4+ T cells in the lung are more prominent in females. STAT6-IP reduces a subset of inflammatory responses more effectively in females. We aim to better understand mechanisms promoting enhanced responses in females as well as pathways targeted by STAT6-IP to provide protection.

## 4) Executive function and episodic memory composites in older adults: Relations with sex, mood, and sleep

Adelaide Jensen, Dr. Patrick S. R. Davidson, University of Ottawa

Neuropsychological perspectives on aging suggest that executive function (EF) and episodic memory (EM) processes are particularly vulnerable. In this study, we sought to learn the degree to which sex, mood, and subjective sleep quality might be related to composite scores of EF and EM in a sample of healthy older adult (N=263) using Glisky et al.'s (1995, 2001) established neuropsychological battery of tests. Using factor analysis and measurement invariance, we successfully replicated Glisky et al.'s two-factor EF and EM structure and found that it did not significantly differ between the sexes. Moderation analyses revealed no interactions between sex, mood, and sleep in predicting either the EF or the EM composite score. Females significantly outperformed males on the EM composite, and on all the individual tests that comprise it. Ours is the first study to look at sex differences in Glisky et al.'s neuropsychological battery and in its potential relations with mood and sleep.

## 5) "Boys Love Boy Toys": A qualitative study exploring the role of fathers in young boys' gendered toy preferences

Julia Tesolin, McGill University

For boys, fathers serve as one of the primary social influences through which they learn about common gender stereotypes, including gender-typical and cross-gender play. The current qualitative study was conducted with six boys (ages 4-6) and their fathers (ages 34-37), where fathers were first asked to complete an adapted version of the Child-Rearing Sex-Role Attitude Scale, which assessed their attitudes and beliefs about gender related toys, activities, and behaviors. Semi-structured interviews were conducted with the father-son pairs, where they participated in a series of toy-preference



activities. Responses indicated that boys have a more stereotyped definition of girl toys than they do of boy toys. Fathers' self-described beliefs reported on the Sex-Role Attitude Scale were similarly reflected in their behaviours and comments during the interviews with their sons. The father-son dynamic, including father and sons' responses to instances of gender non-conformity are discussed.

### **6) Differential impact of a Genetic Risk Score for Coronary Artery Disease by sex**

Justine Desrochers 1, L. Dufresne 2, H.Y. Chen 2, G. Thanassoulis 2, J.C Engert 1,2 1) McGill University Dept. of Human Genetics; 2) McGill University Health Centre Research Institute

Background: Coronary Artery Disease (CAD) is the leading cause of death in men and women worldwide. Genome-wide association studies have identified many variants, that can be combined into a genetic risk score (GRS). We sought to examine sex differences in a CAD GRS. Methods: A CAD GRS (204 variants) was constructed and the strength of its associations with CAD was examined by sex. Cox proportional hazard models on 344 130 individuals of European descent from the UK Biobank were used to assess associations with incident CAD. Results: The CAD hazard ratio per standard deviation of the GRS was 1.40 (1.37, 1.43) and 1.31 (1.28, 1.35), respectively for men and women (both  $p < 2 \times 10^{-16}$ ;  $p$  interaction =  $5 \times 10^{-05}$ ). The GRS in younger men and women (1st tertile, < 53 years old) had stronger associations with CAD in an age stratified analysis with 1.56 (1.48, 1.63) and 1.34 (1.24, 1.44), respectively. Conclusion: Genetic predisposition to CAD has a differential effect depending on sex and age.

### **7) Promoting gender equity in a home visits programme: A qualitative study in Northern Nigeria**

Belaid Loubna, Family Medicine Department, McGill University, Ansari U, Centro de Investigación de Enfermedades Tropicales (CIET), Universidad Autónoma de Guerrero, Acapulco, Mexico Omer K, Centro de Investigación de Enfermedades Tropicales (CIET), Universidad Autónoma de Guerrero, Acapulco, Mexico Mudi H, Federation of Muslim Women Association of Nigeria (FOMWAN), Bauchi Chapter, Bauchi, Nigeria Gidado Y, Federation of Muslim Women Association of Nigeria (FOMWAN), Bauchi Chapter, Bauchi, Nigeria Daniel LE, Bauchi State Primary Health Care Development Agency, Bauchi, Nigeria Andersson N, Department of Family Medicine, McGill University, Participatory Research at McGill (PRAM) Cockcroft A Department of Family Medicine, McGill University, Participatory Research at McGill (PRAM)

A cluster randomised trial in Bauchi State tested the impact of universal home visits to pregnant women and their spouses on maternal and child health. We examined the efforts of the home visits program to promote gender equity and evaluated its impact on gender outcomes. Local researchers conducted nine key informant interviews with government staff associated with the home visits, and 17 gender and age stratified focus group discussions. Members of the research

team conducted a hybrid thematic analysis of reports to look for patterns and meanings. The visits included discussion of gendered issues related to maternal morbidity. All stakeholder groups in interviews and focus groups reported a positive impact of the programme on gender equity. They described positive outcomes on the division of labour, women's access to resources, and decision-making related to health. The findings suggested that the home visits program was gender transformative

### **8) Construction and evaluation of a composite gender index in psychiatry**

Cipriani Enzo, Université de Montréal, Laboratoire CESAR, CRIUSMM, Charles-Edouard Giguère, CRIUSMM; Philippe Kerr, Université de Montréal, Laboratoire CESAR, CRIUSMM; Eugénie Samson-Daoust, Laboratoire CESAR, CRIUSMM; Cécile Lepage, Université de Montréal, Laboratoire CESAR, CRIUSMM; Marie-France Marin, Université du Québec à Montréal, Laboratoire STEAM, CRIUSMM; Robert-Paul Juster, Université de Montréal, Laboratoire CESAR, CRIUSMM

Birth-assigned sex (BAS) is important in psychiatry due to differences in prevalence and symptomatology, but few studies have investigated socio-cultural and demographic aspects of gender and its diversity. Pelletier et al. (2015) created a hypothesis-driven composite gender index with sociodemographic data to investigate risk factors in patients with coronary syndrome and identified risk factors that were absent when solely using BAS. Similarly, we used a data-driven approach to develop an index, offering better adaptability for databases lacking sociodemographic variables known as gender related. We identified promising variables in the Signature database (2061 participants) via t-tests and  $\chi^2$  and conducted factor analysis resulting in a 4-factor model predicting sex with 66% precision. When comparing the scores from this index with BAS, we identified relations with impulsivity. Interactions between gender and BAS allowed a better comprehension of these two dimensions in psychiatry.

### **9) Age, gender, and task modulation of eye blink behaviour in humans**

sabell C. Pitigoi, Centre for Neuroscience Studies, Queen's University, Kingston, Ontario, Dr. Brian C. Coe\* Ms. Rachel Yep\* Ms. Heidi C. Riek\* Ms. Julia E. Perkins\* Ms. Ryan H. Kirkpatrick\* Dr. Brian J. White\* Mr. Don C. Brien\* Dr. Douglas P. Munoz\* \*All have the same affiliation as submitter

Spontaneous blinking of the eyes is a crucial physiological behaviour. However, it occurs more often than necessary for this purpose alone, suggesting that additional cognitive, social, or environmental factors may be involved. It has been shown that blinks occur at implicit breakpoints in a task and are related to attention and cognitive demand. Our objective is to characterize eye blink behaviour in healthy controls performing different tasks. We collected video-based eye tracking data from 608 participants spanning the ages of 5-93 years (390 female, 218 male), and analyzed blink timing and duration on these tasks. We found several differences between age groups, with blink rate increasing from childhood



to adulthood. Female blink rate was higher in those of reproductive age, suggestive of a strong hormonal modulation. Blink behaviour was also highly organized within both structured and unstructured tasks, occurring when task demands were minimal.

### **10) Sex hormones and gender considerations of the gut microbiome, stress, and health**

Claire Hunter, McGill University, Dr. Robert-Paul Juster, University of Montreal, Dr. Christian Baron, University of Montreal

Dysregulation of the gut microbiome by sex hormones can lead to a variety of metabolic & autoimmune conditions. Beyond animals, women and men have very different risk factors for stress-related & metabolic diseases. Sex differences in these diseases are likely modulated by the gut microbiome and sex hormones. Clearly, there is a link between sex hormones and the gut microbiome, but what about gender identity? Many medical therapies involve administration or blockage of sex hormones, notably gender-affirming therapy. It is important to understand how such treatments affect the gut microbiome. The aim of this review is to provide a summary of scientific literature which discusses the impact of sex hormones and gender on the gut microbiome. This will provide insight onto how altered hormone profiles may cause changes in the composition and metabolic capacities of the gut microbiome in trans people during transition, and how gender-affirmation can impact their health and well-being.

### **11) Relevance of gender-tailored promotion of exercise as part of the multimodal treatment of chronic pain**

Marimée Godbout-Parent, Université du Québec en Abitibi-Témiscamingue (UQAT), Nancy Julien, Hermine Lore Nguena Nguetack, Gabrielle Pagé, Line Guénette, Lucie Blais, Anaïs Lacasses, 1. Département des sciences de la santé, Université du Québec en Abitibi-Témiscamingue (UQAT), Rouyn-Noranda, Québec, Canada 2. Centre de recherche du Centre hospitalier de l'Université de Montréal (CRCHUM), Montréal, Québec, Canada 3. Département d'anesthésiologie et de médecine de la douleur, Faculté de médecine, Université de Montréal, Montréal, Québec, Canada 4. Faculté de pharmacie, Université Laval, Québec, Québec, Canada 5. Centre de recherche du CHU de Québec – Université Laval, Québec, Québec, Canada 6. Faculté de pharmacie, Université de Montréal, Montréal, Québec, Canada

For people with chronic pain (CP), exercise should be a part of the multimodal treatment plan. Since treatments can be influenced by biopsychosocial factors, this study explored the relationship between gender identity, gender roles, and the use of exercise as a treatment for CP. We used the COPE Cohort, a self-reported dataset including a Quebec sample of people with CP. Gender identity was defined as women, men, and non-binary. Gender roles were defined as feminine, masculine, androgynous and undifferentiated using the Bem Sex-Role Inventory. Data from 1272 participants were

analyzed (women: 84.0%, mean age: 49.3) and 41.9% reported using exercise for CP. Such prevalence of use varied across gender identity (women: 43.3%, men: 34.2%, non-binary: 75.0%;  $p=.015$ ). Differences were also found across gender role (masculine: 53.0%, feminine: 33.9%, androgynous: 46.0%, undifferentiated: 39.0%;  $p=.001$ ). Tailored promotion of exercise for people with CP should consider gender as relevant.

### **12) Sex/gender reporting and analysis in Canadian research on Inuit health: Secondary data analysis**

Belaid Loubna, Family Medicine Department, McGill University, Caroline Sauvé, Centre de recherche du centre hospitalier de l'Université de Montréal, Richard Budgell, Département de médecine de famille, Université McGill, Neil Andersson, Département de médecine de famille, Université McGill

As one component in a larger partnership research with Inuit stakeholders, we explored the cultural safety of health research methods and practices. We evaluated the equity and gender principles underlying this work. This report describes a gender analysis of the scoping review findings using a modified reporting guideline (SAGER) to extract and analyze sex and gender variables in health research on Inuit communities in Canada. The integration of sex and gender varied across 312 studies, from gender blind to complete gender analysis. The included articles did not address sex and gender variables in inconsistent ways. A minority of introductions ( $n=77$ ) and discussion sections ( $n=112$ ) reported sex and gender variables. Most studies ( $n=224$ ) mentioned sex and gender variables in Methods. There is much room for integrating these variables throughout the research process and outputs. To achieve this, researchers need to consider sex and gender at the design stage of the study.

### **13) "Too much pain, doctor!": Capturing clinical cues of gender-mediated presentations of psychosocial distress among culturally diverse patients in primary care encounters**

Madison Leggatt, McGill University, Dr. Isabelle Leblanc, McGill University; Dr. Alayne Adams, McGill University; Dr. Jeannie Haggerty, McGill University.

Across cultures and societies, gendered roles, relations and structures influence health-seeking behaviour, communication, and treatment preferences. When gender-mediated idioms of psychosocial distress in the clinical encounter go unrecognized, misdiagnosis and inappropriate treatment may occur. In collaboration with a larger research project, this qualitative study seeks to understand how culture, gender, and their intersecting effects impact the presentation and recognition of mental health challenges in primary care encounters. A focus group with interpreters will explore their perceptions of how gender influences the clinical encounter. Interviews with experienced clinicians will identify strategies used to recognize and interpret culture and gender mediated presentations of psychosocial distress. The results will inform



a training module to complement training on the patient-centred method for family medicine residents, helping to improve the provision of mental health care.

#### **14) A cross-lagged panel model of sex differences in the relationship of cannabis use and depression during adolescence**

Simasadat Noorbakhsh, Centre de recherche du CHU Sainte-Justine, Département de Psychiatrie, Université de Montréal, Dr Patricia Conrod, Centre de recherche du CHU Sainte-Justine, Département de Psychiatrie, Université de Montréal

Given the significant neurodevelopmental changes occurring throughout adolescence, cannabis use has been shown to be associated with higher negative effects among adolescent girls compared to boys. This study used Random intercept cross-lagged panel modeling to assess the effects of cannabis use on sex differences in depressive symptoms among adolescents. Participants of the current study were 3,826 high school students (47% female; mean age, 12.7) from Co-Venture study. Adolescents were recruited from 31 high schools in Montreal participating in annual surveys for five consequent years and been assessed for cannabis use and depressive symptoms. The RI-CLPM uses a multilevel approach to test for within-person differences that inform on the reciprocal relations of cannabis use and depressive symptoms, with sex as a moderator. The models were implemented in MPLUS 8, using the full information maximum likelihood method. I will present the results in the conference presentation.

#### **15) Sex and gender correlates of sexually polymorphic cognition**

Louis Cartier, Department of Psychiatry and Addictology of UdeM; CRIUSMM, Fadila Moussaoui: CRIUSMM Samuel Villeneuve: CRIUSMM Amine Mohammedi: CRIUSMM Robert-Paul Juster: CRIUSMM; Department of Psychiatry and Addictology of UdeM

Several studies have raised sex differences in cognition, but their understanding remains unclear. This transdisciplinary study aims to understand how cognition is influenced by sex, sex hormones, and sociocultural gender factors such as sexual orientation, gender identity and gender roles. The study also seeks to examine the effect of each of the variables on cognition. First, we expect female traits to be positively correlated with female-typed task performances (similarly for male traits). Second, we expect a positive correlation between cognitive performances of gay men and heterosexual women, and between heterosexual men and lesbians. This NSERC-funded study will recruit 180 adults, separated into 5 subgroups, based on sex, sexual orientation, and gender identity. We have tested 92 participants and have past half of our objective. This study will further investigate sex\*gender differences on cognition in subpopulations, such as postmenopausal elderly and in clinical populations.

#### **16) Sex and gender science: The world writes on the body**

Alana Brown, University of Toronto, Alana Brown, Department of Psychology, University of Toronto, Canada, Laurice Karkaby, Department of Psychology, University of Toronto, Canada Mateja Perovic, Department of Psychology, University of Toronto, Canada Reema Shafi, Department of Psychology, University of Toronto, Canada Gillian Einstein, Department of Psychology, University of Toronto, Canada, Rotman Research Institute, Baycrest Health Sciences, Canada, Linköping University, Sweden

Sex and Gender Science seeks to better acknowledge that the body cannot be removed from the world it inhabits. To best answer any neuroscience question, biological and social influences must be addressed through objective and subjective methodologies. We call bringing the biological and social together, "Situated Neuroscience" and the mixing of approaches to do so, "Very Mixed Methods." Taken together, they constitute a comprehensive approach to Sex and Gender Science. We describe these methods and highlight neural phenomena for which considering sex and gender together produces a fuller knowledge base: sleep, pain, memory, and concussion. We highlight how studying quantitative measures alone does not reveal the full impact of lived experiences on the brain, while the qualitative perspective in isolation fails to reveal how the brain responds. Sex and Gender Science offers more expansive, complementary, and interrelating pictures of an intricate neuro-landscape.

#### **17) Tetrahydrocannabinol (THC) in adolescence dysregulates the signaling pathway that orchestrates dopamine development**

Tanya Capolicchio, Douglas Mental Health Institute, Giovanni Hernandez, Douglas Mental Health Institute Katherina Estrada, McGill University, Emilie Dube, McGill University, Cecilia Flores - Principal Investigator, Douglas Mental Health Institute & McGill University Psychiatry Department

Adolescence is a period of dynamic mesocorticolimbic dopamine (DA) development when ventral tegmental area (VTA) axons grow from the striatum towards the prefrontal cortex (PFC), ultimately fine-tuning adult PFC function and cognitive control. The Netrin-1 receptor gene, Dcc, controls this protracted growth. Here we assessed whether adolescent exposure to tetrahydrocannabinol (THC), alters VTA Dcc mRNA and its repressor, miR-218, and modifies different aspects of impulsivity in adulthood. Male and female mice (PND 22) received intraperitoneal injections of THC (0, 2.5, 5, mg/kg) every other day for 10 days. One week later, miR-218 and Dcc were quantified. In males, THC increased Dcc and decreased miR-218. In females, THC decreased Dcc without altering miR-218, suggesting a different epigenetic route. Similar dimorphic effects were observed in cognitive control. In males, THC improved stop impulsivity but worsened waiting impulsivity. In females, only waiting impulsivity was impaired.



## **18) Difference in right ventricular remodeling between men and women with aortic stenosis**

Gabrielle Hudon, CRIUCPQ, Dre Marie-Annick Clavel, CRIUCPQ

Background: Current guidelines recommends to treat tricuspid regurgitation/dilation at the time of aortic valve replacement for aortic stenosis(AS).However, sex differences have not been investigated in right ventricle(RV)remodeling in AS. Methods: We retrospectively included 212 with at least mild AS. After matching for AS severity( $p>0.12$ ),198 patients were available for analysis. Results: Mean age was 76 12years, 44% were women. Women present with more TR than men ( $p=0.01$ ;Figure).RV dimensions were significantly smaller in women than men(tricuspid annulus diameter(TAD):34.0 0.7 vs 36.1 0.5; mid-ventricular diameter:29.7 0.6vs33.1 0.6; height: 65.21.0 vs 73.4 0.9, all  $p\leq 0.01$ ).However, after indexation to body surface area, TAD was larger in women than in men(20.4 0.4vs18.8 0.3, $p=0.002$ ) while other dimensions were similar (Figure).Conclusion: Using indexed dimensions is essential to assess RV remodeling in patients with AS. Women appear to be at a more advanced stage of RV impairment at the same AS severity.

## **19) Impact of gender on pediatric surgical care in Africa**

Sacha Williams, McGill University, Ms. Elena Guadagno, Dr. Maeve O'Neill Trudeau, Dr. Dan Poenaru

Globally 1.7 billion children lack access to safe, timely surgical care. In Africa 50% of the population are children. Girls, whose care is more likely to be affected by barriers steeped in gender inequity, may be at higher risk of poor surgical outcomes. The study aims to explore the impact of gender on pediatric surgical care in Africa. We will examine sex-based differences in both surgical access (incidence) and outcomes for conditions where sex should not play a role, therefore attributing any observed differences to systemic gender-based factors. Our twofold approach includes: I) Interrogating a global burden of disease database for conditions with equal or known sex prevalence and severity, andII) Exploring surgical access and outcomes via a systematic review and meta-analysis of sex-disaggregated pediatric surgical cohorts. Our study is expected to generate first-time evidence for gender inequity in the care of a very vulnerable population.

## **20) Sex-differences in the heart rate response to breathing maneuvers for inducible myocardial perfusion deficits**

Mahya Khaki, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada, Judy Luu, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada, Elizabeth Hillier, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada, Magdi Sami: Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada, Mitchel Benovoy, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada, Circle Labs, Circle Cardiovascular Imaging Inc. Calgary, AB, Canada, Sylvie G lineau: Ordre des technologues en imagerie m dicale, en radio-oncologie et en  lectrophysiologie m dicale du Qu bec

Medical Radiation Technologist (MRT[R]), Margherita Leo, Ordre des technologues.

The difference in the diagnostic performance of stress testing for coronary artery disease (CAD) between males and females may partly be due to cardiac autonomic modulation, reflected by heart rate(HR) changes. We aimed to assess the sex-specific performance of HR response to hyperventilation (HV) in ruling out myocardial ischemia. We enrolled 58 patients suspected of CAD and 14 healthy controls. Using stress cardiac magnetic resonance perfusion as the reference, we assessed the diagnostic performance of percent HV-induced HR increase relative to resting HR(HRR-HV). HRR-HV and age differed between sex groups (Fig 1). Compared to males, female-specific AUC analysis of HRR-HV demonstrated a lower discriminating power for ischemia (0.67 vs 0.82)(Fig 2). Using a female-specific cut-off for HRR-HV, the diagnostic accuracy was lower when compared to males (Fig 2). Heart rate response to hyperventilation had a lower discriminating ability for myocardial ischemia in females compared to males.

## **21) The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test**

Laila Chaudhry, McGill University, Coovadia, Yasmine- McGill University, Mogil, Jeffrey-McGill University, Usselman, Charlotte-McGill University

Pain is subjective, displaying high interindividual variability in its perception, especially between the sexes. Sympathetic outflow, namely muscle sympathetic nerve activity (MSNA), also has significant interindividual variability, as well as sex differences, but can serve as an objective biomarker for pain. The extent to which MSNA and subjective pain ratings are related has rarely been explored, and even less so across sexes. Therefore, the purpose of this study was to examine the relationship between pain and MSNA in male and female participants during a 6-minute cold pressor test (CPT). Pain ratings were quantified using a numerical rating scale at multiple timepoints, and MSNA was continuously measured using microneurography (i.e. insertion of an electrode needle into a nerve to record activity). Results show high interindividual variability in pain and MSNA responses, as expected, though sex differences in these two variables remain inconclusive due to ongoing data collection.

## **22) Sex differences in the genetic prediction of attachment.**

Shalaka Shah, McGill University, Jewish General Hospital, Ashley Wazana, McGill University, Jewish General Hospital

GWASs would help to consistently identify a genetic basis for attachment, but it is difficult to reach necessary sample sizes. This study examines sex differences as part of a novel method of predicting attachment using PRSs derived from psychiatric/developmental GWASs. Participants (N=260; 50.4% female) were mothers and children in the MAVAN project. Attachment was assessed at 36 months using a separation-reunion procedure and scored on four scales. ADHD, sensitivity, total psychiatric problems, and cognitive PRSs were



used. Attachment scores were first separately regressed on each PRS, and then PRSs were combined to predict each attachment scale. Results showed that in females, genetic predisposition for ADHD, psychiatric problems and cognitive development predicted more adaptive attachment behaviours; in the males the opposite was true. These results suggest that sex differences play an important role in the genetic basis of socioemotional outcomes such as attachment.

### **23) Assessing the inclusion of sex and gender in cannabis research: Evidence from the Sex, Gender and Cannabis Hub**

Andreea Brabete, Centre of Excellence for Women's Health, Greaves, L., Centre of Excellence for Women's Health Poole, N., Centre of Excellence for Women's Health Wolfson, L., Centre of Excellence for Women's Health Stinson, J., Centre of Excellence for Women's Health Huber, E., Centre of Excellence for Women's Health

There is increasing interest in addressing sex and gender related factors in cannabis research and policy, but little use of sex and gender-based analysis plus (SGBA+) in published evidence. The aim of this poster is to demonstrate the extent to which sex, gender and/or SGBA+ are integrated into cannabis research. Drawing on a scoping review of cannabis literature published between 2018 and 2022, we examined the inclusion of sex and gender throughout the papers. We created 6 paradigmatic categories for analysis: one sex/gender group; one sex/gender group but considers other factors; sex/gender differences; SGBA; SGBA+; and intersectional approach. Of 651 included papers, 47 were categorized as SGBA+ and 19 as intersectional. Despite an increasing recognition of sex and gender related factors in cannabis research, the uptake of SGBA+ and intersectionality is limited. Further integration would allow for more tailored policy, treatment and practice responses to cannabis use.

### **24) Gender identity among women with genital mutilation living in Western countries: A maimed and circumscribed femininity**

Emmanuelle Gareau, École de santé publique de l'Université de Montréal; Centre de recherche en santé publique; Qollab, Andréanne Dufour; École de santé publique de l'Université de Montréal Olivier Ferlatte; École de santé publique - Département de médecine sociale et préventive, Centre de recherche en santé publique (CReSP), Qollab

Female genital mutilation (FGM) is defined as the partial or total removal of external female genitalia for non-medical reasons. Because of the acceleration of migration, FGM is increasingly recognized as an important public health issue in the West, however knowledge about the impacts of FGM on women's felt gender identity and on their sexual health remains scarce. Combining results from a qualitative metasynthesis and an exploratory study with women with FGM in Quebec, this presentation aims to depict how women with FGM living in western countries embody their femininity and conceptualize their gender identity. The analysis highlights

women's conflicting feminine identity, both created and annihilated by the FGM. Both gender and sexual norms, as well as FGM itself influence women's perceptions of their body and femininity, leading them to feel abnormal and incomplete. More work is needed to understand how women with FGM experience their gender identity and how to promote their sexual agency.

### **25) Barriers and opportunities for the LGBTQIA2S+ community in the Canadian tech industry: Results of a literature review and mixed-methods study**

Amanda Chalupa, McGill University, Samuel Villeneuve (Université de Montréal), Katerine Lehmann-Rospond (Concordia University), Sanjna Navani (KU Leuven), Bradley Alexander (McGill University), Ophélie Larocque (Université de Sherbrooke), Robert-Paul Juster (Université de Montréal), Ketra Schmitt (Concordia University), Bobbi Bidochka (Imagine Ideation), Naoufel Testaouni (QueerTech)

LGBTQIA2S+ individuals face barriers and challenges in gaining and retaining employment in the tech industry, leading to their significant underrepresentation. Research on this issue is sparse and incomplete. We conducted a literature review, a quantitative survey, and semi-structured interviews within a mixed-methods framework to understand the lived experiences of employers and employees in the Canadian tech industry. The literature review revealed five themes: belonging, cultural competence in STEM academia, intersectionality, EDI/HR policies, and navigating the workplace as queer individuals. It was the base for a quantitative survey (N=254, mean age=26, 19-65). A broad range of sex, gender, professional, ethnic, and religious identities are represented among survey participants and interviewees. Through various community partnerships, this research informs the development of improved policies and practices in the Canadian tech industry as related to employment, wellness, and EDI.

### **26) Characterization of aortic valve stenosis in male and female mice**

Rose Tam, Université Laval – CRIUCPQ, Mohamed-Salah Annabi (Université Laval - CRIUCPQ) Mylène Shen (Université de Nantes - CHU de Nantes) Nancy Côté (Université Laval - CRIUCPQ) Marie-Annick Clavel (Université Laval - CRIUCPQ)

Background: Valve lesions in aortic stenosis (AS) are more calcified in men but more fibrotic in women. The physiology behind this dimorphism is poorly understood. We aimed to evaluate the effect of sex hormones in a mouse model of AS. Methods: LDLr<sup>-/-</sup>-ApoB100/100IGF-II<sup>+/-</sup> mice (n=210) were separated into 6 groups: 1) intact male (IM), 2) intact female (IF), 3) castrated male (CM), 4) ovariectomized female (OF), 5) CM with testosterone (CMT), and 6) OF with 17β-estradiol (OFE) (Fig A). AS progression was evaluated by echocardiography, histology, and ddPCR. Results: Disease progression was not significantly different between IM and IF. However, IF showed less severe AS (Fig B). Pro-calcifying genes were downregulated in females. In contrast, IM and CMT



showed upregulation of pro-calcifying gene expression and calcification of the aortic valve. Conclusion: Male sex and testosterone appear to trigger calcification of the aortic valve whereas female sex seems to protect against it.

### **27) Examining Sex-Based Differences in Markers of Cardiovascular Health in Children with a Chronic Inflammatory Disease**

Madelyn Byra (1) Proudfoot, N.A.(1,2), Chen, S.R(1), MacDonald, M.J.(2), Cellucci, T.(3), Thabane, L.(3), Timmons, B.W.(1,3), and Obeid, J. (1,3) 1 Child Health & Exercise Medicine Program, McMaster University, Hamilton, ON L8S 4K1, Canada 2 Department of Kinesiology, McMaster University, Hamilton, ON L8S 4K1, Canada 3 Department of Pediatrics, McMaster University, Hamilton, ON L8S 4K1, Canada

Children (7-17 years) with a CID were recruited from McMaster Children's Hospital. Ultrasound measurements included carotid intima-media thickness (cIMT), flow-mediated dilation (FMD), carotid -stiffness, and pulse wave velocity (PWV). Sex differences were assessed using independent t-tests and ANCOVAs. Eighty-three participants (47 girls) completed this study. There were no differences in age, height, or weight between girls and boys. No sex differences were found for cIMT (girls vs. boys, mean±SD: 0.394±0.03 v. 0.384±0.04mm), carotid -stiffness (4.2±0.9 v. 4.5±1.3AU), FMD (7.0±2.7 v. 6.7±2.7%), or PWV (5.1±0.4 v. 5.0±0.4m/s). Our findings suggest that sex differences in CV outcomes may not be apparent in children with a CID. Longitudinal studies may provide insight into the emergence of these sex-based differences.

### **28) Withdrew**

### **29) The influence of sex and hormonal contraceptives on sensitivity to changing rewards in a model-based learning task**

Jesse Lacasse, Center for Studies in Behavioral Neurobiology, S. Devine, M. Profitt, B. Eppinger, W.G. Brake Concordia University

Human decision-making is often partitioned into two systems that govern choice: an automatic and cognitively inexpensive system, and a deliberative, but expensive one. This distinction is captured, respectively, by "model-free" and "model-based" learning in a reinforcement learning framework. To date, the potential hormonal underpinnings of this distinction remain unexplored. We tested oral contraceptive users (OC; n=54), naturally cycling women (NC; n=48), and men (n=56) on a two-step Markov decision task with a block-wise (stakes) manipulation. When stakes were low, OC and NC engaged in more model-based control than men. However, when stakes were high, men do not differ from OC or NC in model-based control. Exploratory analysis of the OC group revealed the importance of considering androgenic progestins, and ingestion of active vs. sugar pill. Future work on cognitive sex differences should include an analysis of hormonal contraceptive use.

### **30) Sex-differences in the myocardial oxygenation response to breathing maneuvers**

Kate Lindsay (1), Judy Luu (1), Elizabeth Hillier (1), Mitchel Benovoy (1, 2), Sylvie G lineau (3), Margherita Leo (4), Matthias G. Friedrich (1, 5) 1) Faculty of Medicine and Health Sciences, McGill University, Montreal, QC, Canada 2) Circle Labs, Circle Cardiovascular Imaging Inc. Calgary, AB, Canada 3) Ordre des technologues en imagerie m dicale, en radio-oncologie et en  lectrophysiologie m dicale du Qu bec, Medical Radiation Technologist (MRT[R]) 4) Ordre des technologues en imagerie m dicale, en radio-oncologie et en  lectrophysiologie m dicale du Qu bec, Advanced Certification specialized Radiology (ACR), Medical Radiation Technologist (MRT[R]) 5) Departments of Medicine and Diagnostic Radiology, McGill University Health Centre, Montreal, Canada

In healthy subjects, the impact of sex on the vasculature is unclear. Oxygenation-Sensitive Cardiac Magnetic Resonance (OS-CMR) is a validated tool to examine vascular function through the breathing-induced myocardial oxygenation reserve (B-MORE). The aim of this study is to assess the impact of sex on tissue oxygenation, as a marker of microvascular function, in healthy subjects. We retrospectively assessed B-MORE in 105 healthy adults. T-tests were used to view differences in microvascular function between sexes. Principal component regression was used to assess the impact of sex alongside other factors. Male subjects showed significantly ( $p<0.05$ ) greater mean B-MORE (8.509) compared to females (6.408). In multivariable analysis, sex independently impacted B-MORE. Sex significantly impacts the microvasculature in the healthy population, improving our understanding of sex-differences in microvascular physiology. Female sex-specific risk factors may be associated with reduced B-MORE.

### **31) Mind over menstruation: Towards an integrative view on how the menstrual cycle influences brain and behaviour**

Kiranjot Jhaggi, University of Northern British Columbia

The menstrual cycle is a multidimensional phenomenon. The hormonal dimension encompasses the effects of ovarian hormones, particularly estrogens and progesterone, on reproduction, brain, and behaviour. For example, estrogen and progesterone have been associated with changes in brain function and activity. While the field of neuroscience and psychology predominantly investigates the menstrual cycle as a hormonal phenomenon, the menstrual cycle also exists as a social phenomenon. The socio-cultural dimension of the cycle constrains how the cycle is experienced. For instance, both menstruation and the menstrual cycle are surrounded by stigma, which can become a stressor for menstruating people. While the social and hormonal dimensions of the menstrual cycle tend to be studied separately, the present poster introduces an approach to view and investigate the effects of the menstrual cycle that integrate both dimensions.





### **32) Layered precarity: Experiences of recent immigrant women in the food and accommodation industry during the COVID-19 pandemic**

Alice Mûrage, Simon Fraser University

Precarity has been described as a condition of dependence, contingency, persistent temporariness, instability, vulnerability, and inability to predict or plan for the future (Ettlinger 2007; Butler 2009; Berlant 2011; Mould 2018; Azmanova 2020). While precarity is arguably an unavoidable characteristic of life due to dependence on political, social, and economic structures, it is differentially allocated as a policy and social outcome. This paper explores and exposes precarity experienced by racialized recent immigrant women working in the food and accommodation industry in British Columbia during the COVID-19 pandemic. An analysis of eleven in-depth interviews and three key informant interviews highlights how policy and intersecting characteristic based on gender, motherhood, ethnicity, immigration status, employment, class, and educational credentials contributed to their precariousness. The pandemic added layers upon layers of precarity, economically, socially, and psychologically.

### **33) The vulnerability to social stress in adolescence is sexually dimorphic**

Samuel Richer<sup>2</sup>, Andrea H. Pantoja Urban<sup>1,2</sup>, Samuel Richer<sup>1,2</sup>, Amelie Mittermaier<sup>1,2</sup>, Giovanni hernandez<sup>1</sup> Michel Giroux<sup>1</sup>, Cecilia Flores<sup>1</sup> 1) Douglas Mental Health University Institute, Montreal, QC, Canada. 2) Integrated Program in Neuroscience, McGill University, Montréal, Quebec, Canada.

Whether short term responses to adolescent stress modify enduring effects in males and females is unknown. We explored whether social approach behaviour 24h after social stress in adolescence predicts impulse control in adulthood. Mice were exposed to the accelerated social defeat (AcSD) model followed by a social interaction test 24 hours later. High social interacting mice were labeled as resilient and socially avoidant mice were classified as susceptible. In adulthood, mice were assessed in the Go/No-Go task to quantify impulse control. Compared to males, females that underwent AcSD in adolescence showed a higher proportion of resilience to social avoidance. In adulthood, resilient but not susceptible females showed cognitive deficits, compared to control counterparts. In males, both resilient and susceptible groups showed impaired impulse control in adulthood. Vulnerability to the enduring effects of adolescent AcSD on cognitive function differs between male and female mice.

### **34) Le sexe modifie-t-il l'association entre l'exposition professionnelle aux perturbateurs endocriniens et le risque de cancer colorectal ?**

Laura Pelland-St-Pierre, Centre de recherche du CHUM, Marc-André Verner<sup>(1,2)</sup> et Vikki Ho<sup>(3,4)</sup>. 1. Centre de recherche en santé publique (CReSP), Université de Montréal et CIUSSS Centre-Sud, Montréal, Québec, Canada 2. Département de santé environnementale et santé au travail, École de santé publique, (ESPUM), Université de Montréal, Montréal, Québec,

Canada 3. Carrefour de l'innovation et de l'évaluation en santé, Centre de recherche du Centre Hospitalier de l'Université de Montréal (CRCHUM), Montréal, Québec, Canada 4. Département de médecine sociale et préventive, École de santé publique (ESPUM), de l'Université de Montréal, Montréal, Québec, Canada

Les facteurs qui influencent les hormones sexuelles comme les perturbateurs endocriniens (PE) sont soupçonnés d'être impliqués dans l'étiologie du cancer colorectal (CCR). L'objectif était de déterminer si l'exposition professionnelle aux PE influence le risque de CCR et si l'association diffère selon le sexe. Un devis cas-cohorte a été niché dans l'Étude sur la santé Ontario. L'exposition professionnelle à 17 PE a été estimée par une matrice emplois-expositions. Des régressions logistiques ont été utilisées. L'interaction par le sexe sur l'échelle additive et multiplicative a été évaluée. L'exposition au cuivre, au plomb, au perchloroéthylène et au trichloréthylène étaient associées à un risque accru de CCR. L'exposition au phénol était associée à une diminution du risque de CCR. Il y avait présence d'interaction par le sexe sur les deux échelles pour l'association entre le bisphénol A et le risque de CCR. Ces résultats soutiennent l'importance des contaminants en milieu de travail.

### **35) Stress, résilience, et besoins spécifiques en santé chez les personnes trans et/ou non-binaires**

Morgan Vallée, UQAM, CESAR, CR-IUSMM, Ophélie Larocque (UDES), Robert-Paul Juster (UDEM)

Le stress concerne chaque individu, mais pas de la même façon. Le modèle de stress minoritaire permet d'appréhender comment le fait d'appartenir à un groupe minorisé expose à des stressors externes (ex. discrimination) et internes (ex. anticipation) spécifiques. Si plusieurs études ont montré que les personnes trans rapportaient des taux significativement plus élevés d'anxiété et de dépression que les personnes cis, peu de recherches se sont intéressées à leurs stratégies d'adaptation et de résilience, ainsi qu'à leurs besoins spécifiques en santé. Cette recherche collaborative consiste en 31 entrevues individuelles avec des personnes trans et/ou non-binaires. Il s'agit de mieux comprendre les besoins spécifiques en santé des personnes trans afin de poser des jalons pour une recherche plus respectueuse et en accord avec les besoins réels de la communauté. Le protocole de l'étude –incluant les entrevues et leur analyse thématique– ainsi que les résultats préliminaires seront présentés.

### **36) Reviewing behavioural correlates of environmental xenoestrogen exposure: a novel opportunity to integrate the social and biological**

Zachary Vaughan, Department of Psychology, University of Northern British Columbia, Jihanne Dumo<sup>1</sup>, Emma Amyot<sup>2</sup>, Trina Fyfe<sup>3</sup>, & Annie Duchesne<sup>1</sup> 1 Department of Psychology, University of Northern British Columbia, Prince George, Canada. 2 Department of Psychology, University of Calgary, Calgary, Canada. 3 Northern Medical Program, University of Northern British Columbia, Prince George, Canada



Environmental xenoestrogens (EXEs) are a specific group of endocrine-disrupting chemicals that primarily affect the estrogen system. As our understanding of the neuroendocrinological and behavioural effects of EXEs increase, we lack an integrated review of their effects on the human adult population. This project aims to systematically review the literature on the behavioural correlates of EXE exposure in adulthood. Of 41 studies reviewed, 33 investigated the effects of phytoestrogens, and of those, 19 were conducted in menopausal women. Ten studies revealed a negative association between phytoestrogens and depressive symptoms, while 3 demonstrated a positive association between phthalates and depression. Of the studies on cognitive performance, most failed to observe effects. We conclude by discussing implications of EXE exposure during adulthood to our understanding of estrogenic effects on behaviours and the potential sex/gender differences.

### **37) Stop 'controlling' for sex and gender in health research: Examples from influenza and COVID-19 vaccine research**

Janna R. Shapiro, Johns Hopkins Bloomberg School of Public Health, Sean X. Leng, Johns Hopkins School of Medicine Sabra L. Klein, Johns Hopkins Bloomberg School of Public Health Rosemary Morgan, Johns Hopkins Bloomberg School of Public Health

Sex/gender are often 'controlled' for in health research, which forces the relationship between a predictor and outcome to be the same across sex (males, females, and intersex) or gender identity (men, women, and gender minorities) (Fig A). There are many examples, however, where sex/gender modify the relationship between the predictor and outcome and controlling for these variables is inappropriate (Fig B). We illustrate this concept using data from seasonal influenza (Fig C) and COVID-19 (Fig D) vaccine studies in older adults. In both cases, controlling for sex, resulted in effects of age that did not accurately represent males or females. When interaction terms were included in regressions, however, sex-specific effects of aging emerged in both studies, where antibody responses decreased with age in males but not in females. Through this case study, we illustrate that controlling for sex/gender can lead to incorrect findings that are detrimental to equitably improving health.

### **38) Utopia, Euphoria and Garba: Performing Dance and Owning Space**

Shailee Rajak, Department of English, McGill University, Montreal

My research focuses on the performance of 'Garba'— a traditional, folk-dance form practiced during the nine-day festival of Navratri in the western state of Gujarat in India—as an emancipatory practice for Gujarati females who are allowed to cross spatial, temporal, and sartorial boundaries which typically dictate 'proper' behaviour for Indian women. The central argument seeks to explore the improvisatory nature of garba and how its performance enables minority genders to

create alternative identities and communities, thereby destabilizing the dominant status quo in a religiously codified, patriarchal society. An analysis of the dance form and its history is undertaken to study how garba allows women to claim ownership over parts of the public realm. It also attempts to theorize this decentring function of garba as carrying 'euphoric' potential as opposed to 'utopic'. The research methodology will be based on an auto-ethnographic approach.

### **39) Transdisciplinary discussions: bridging critical studies and public health to better understand lesbian, bisexual and queer women (LBQ) mental health in Quebec**

Tara Chanady, École de Santé Publique

In this presentation, I reflect on the potential of critical studies to inform the development of novel and nuanced public health knowledge about LBQ women's mental health. In my doctoral thesis, I drew in theories from the field of communication and employed critical phenomenology to understand generational, linguistic and migrational issues faced by diverse LBQ women in Montreal. In my current postdoctoral in public health, I explore the relation between cannabis use and mental health among LGBTQIA+ youth in Quebec. Understanding contextual changes in relation to sexual and gender identities allows to properly contextualize the health care needs and obstacles of LGBTQIA+ populations. Through examples of these two studies, I demonstrate how mobilising critical phenomenology helps to emit better mental health care recommendations for LBQ women in Quebec by providing a more detailed understanding of past and present social contexts, as well as the power dynamics that inform them.

### **40) Sex differences in the interplay between cerebral small vessel disease (CSVD) risk factors and cognitive decline**

Moustafa H. Fouad, McGill University Faculty of Medicine, Amanpreet Kaur (1,2), Zahra Azizi (1,2), Hassan Behloul (2), Natasha Rajah (1,2), Louise Pilote (1,2) Affiliations: 1. Department of Medicine, McGill University Health center, Montreal, Canada 2. Centre for Outcomes Research and Evaluation, Research Institute, McGill University Health Centre, Montreal, Canada

Sex differences in the rate of cognitive decline have been reported, with women exhibiting higher baseline cognitive function compared to men, but showing a faster rate of decline starting in the 5th decade. However, it remains unclear whether and how vascular risk factors associated with cerebral small vessel disease may contribute to this sex difference. Our objective was to evaluate sex differences in cognitive performance tests at two time points (2014 and 2019) and to compare the rate of cognitive decline during the 5-year period. Overall, the rate of cognitive decline in 3 cognitive domains (executive function, memory, and attention) did not significantly differ between men and women when accounting for vascular risk factors. Having a better understanding of sex



differences in cognitive decline is an important step to the development of personalized, sex-specific medicine.

#### **41) Gendered social determinants of health and the risk of thromboembolic events and bleeding in atrial fibrillation**

Houle, Jonathan, McGill University, Canada Azizi, Zahra, McGill University, Canada Raparelli, Valeria, University of Ferrara, Italy Norris, Colleen, University of Alberta, Canada Proeitti, University of Milan, Italy Pilote, Louise, McGill University, Montreal

Traditional risk factors have only shown moderate predictive ability for thromboembolic events (TE) and bleeding in patients with atrial fibrillation (AF). We investigated if gendered social determinants of health (SDOH) are associated with TE and bleeding risk in patients with AF. We used the EURObservation Research Programme (EORP) Long Term Registry and included 11,096 participants recruited from 2013 to 2016 and followed up to 2 years. Mean age was 69 years, 40.1% were females, 85.1% were anticoagulated (AC), 80% had a CHA<sub>2</sub>DS<sub>2</sub>VASc  $\geq 2$  and 9.45% had TE or bleeding during follow up. Multivariate logistic regression showed that higher income (OR:0.48, CI:0.37-0.61), alcohol (OR:0.90, CI:0.81-0.98), greater health state (OR:0.65, CI:0.42-0.9), AC (OR:0.55, CI:0.46-0.67) and CHA<sub>2</sub>DS<sub>2</sub>VASc (OR:1.09, CI:1.04-1.14) were significant predictors of TE and bleeding. Gendered SDOH appear to be important predictors of clinical outcomes in patients with AF.

#### **42) The effect of testosterone on decision-making in women**

Félix Duplessis-Marcotte, Université du Québec à Montréal, Virginie Drouin-Raymond, Université de Montréal, Marie-France Marin, Université du Québec à Montréal

Sex differences in decision-making are ambiguous. As men engage in riskier behaviours, the effects of testosterone on decision-making have been largely studied. Few studies have been conducted in women and by extension, examined female sex hormones (progesterone and estrogen). This study aimed to understand the role of sex hormones (progesterone, estrogen, and testosterone) in decision-making. Before completing the Iowa Gambling Task, 40 healthy young women provided saliva samples to assess their sex hormones. The goal of the task was to maximize monetary profits by drawing cards from four decks: two with large gains and larger losses (risky decks) and two with small gains and smaller losses (safe decks). Multilevel linear models revealed a quadratic effect of testosterone on risk-taking such that low and high testosterone levels in women were associated with more risk-taking than average levels. This study suggests that the effects of testosterone on risk-taking are not unique to men.

#### **43) Not a hard pill to swallow: The beneficial influence of oral contraceptives on cognition**

Lisa-Marie Davignon, Université du Québec à Montréal, Alexandra Brouillard, Université du Québec à Montréal, Anabelle Guérard, Université du Québec à Montréal, Marie-France Marin, Université du Québec à Montréal

As they easily access the brain, sex hormones are associated with cognitive functions such as visuospatial and verbal abilities. Oral contraceptive (OC) users, naturally cycling women (NC women; not using OC), and men portray distinct sex hormone profiles. Thus, between-group differences in visuospatial and verbal performance have been reported. Duration of OC use has been hypothesized to modulate these effects. The objective of this study was to explore the link between duration of OC use and these functions. To do so, 201 healthy participants (70 OC, 86 NC, 45 men) completed tests measuring their visuospatial and verbal (fluency, memory) abilities. Preliminary analyses revealed that OC users outperformed NC women on the visuospatial task and men in verbal memory. Of note, prolonged OC use was associated with superior verbal fluency in women. In sum, current OC use and OC use over time appear to influence visuospatial performance and verbal fluency, respectively.

#### **44) Perception of pregnancy risk among women with gestational diabetes and their partners: Quantitative findings**

Suzanne Lydia Lennon, College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, Maureen Heaman RN, PhD - College of Nursing, Rady Faculty of Health Sciences, University of Manitoba Roberta Woodgate RN, PhD - College of Nursing, Rady Faculty of Health Sciences, University of Manitoba Catherine Cook MD, MSc., CCFP, FCFP - Department of Community Health Sciences, First Nations, Metis and Inuit Health, Max Rady College of Medicine, Rady Faculty of Health Sciences

**PURPOSE:** To determine if gender differences exist in pregnancy risk perception among women with GD and their partners. **DESIGN:** Cross-sectional correlational. **Participants** (n=214) were pregnant women, diagnosed with GD and their partners. **RESULTS:** Women had significantly higher pregnancy risk perception scores (M 39.0/100, SD 17.3) than men (M 33.6, SD 16.6; paired t = 3.2; p = .002). For women, perceived stress ( $\beta = 0.32$ , p = .001) and pre-pregnancy BMI ( $\beta = 0.19$ , p = .028) were significant predictors (R<sup>2</sup> = .36). For men, significant predictors were education ( $\beta = 0.31$ , p = .004), risk familiarity ( $\beta = 0.23$ , p = .018), dread ( $\beta = 0.21$ , p = .020), urban residence ( $\beta = 0.18$ , p = .044), and self-efficacy ( $\beta = 0.17$ , p = .045), (R<sup>2</sup> = .37). **CONCLUSIONS:** Gender differences exist in perceived pregnancy risk and in predictors of perceived risk for women with GD and their partners. Identification of gender specific predictors of GD risk perception may allow for tailored education interventions.

#### **45) Perception of pregnancy risk among women with gestational diabetes and their partners: Qualitative findings**

Suzanne Lydia Lennon, College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, Maureen Heaman RN, PhD College of Nursing, Rady Faculty of Health Sciences, University of Manitoba Roberta Woodgate RN, PhD. College of Nursing, Rady Faculty of Health Sciences, University of Manitoba Catherine Cook MD, MSc., CCFP, FCFP. Department of Community Health Sciences, First Nations, Metis and Inuit Health, Max Rady College of Medicine, Rady Faculty of Health Sciences



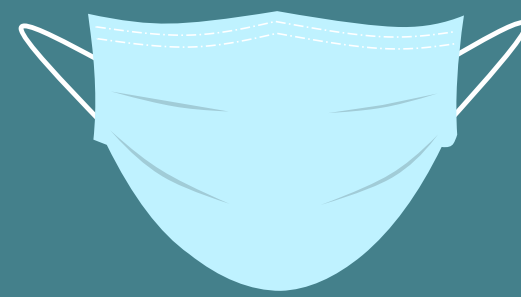
**PURPOSE:** To apply a gendered lens to examine factors influencing risk perceptions of women with gestational diabetes (GD) and their partners. **DESIGN/METHODS:** 8 couples participated in semi-structured interviews. Content analysis was used to code and analyze data. **FINDINGS:** Risk perception was shaped by factors such as acknowledging GD risk while minimizing personal risk. Participants had confidence in their ability to manage GD and felt they had adequate GD knowledge. Couples held misconceptions regarding GD. Couples agreed factors such as emotional support, making changes together, and partner attendance at prenatal care were important in reducing risk perceptions. **CONCLUSIONS:** This study contributes to the understanding of pregnancy risk perception by examining the role of gender. Awareness of the influence of the woman's partner and his role in contributing to health behaviour change is key to understanding the social context of a pregnancy complicated by GD.



# IMPORTANT INFORMATION

## COVID-19

As per the Quebec Provincial COVID Guidelines, there will be no requirements of proof of vaccination or a negative COVID test to attend the conference. As of May 14th, masks are no longer required in the conference space. However, we encourage attendees to wear a mask during the conference. In addition, every day when we send the reminder for the day's events, we will suggest you to ask yourself some health questions. If the answer to any of them is, "Yes," we urge you to stay in bed, drink plenty of fluids, and look after your health!



## TRANSPORTATION

For those who are planning to drive to the conference, there is parking available at the hotel for a fee. If you are planning to come via public transit, the hotel is an 8-minute walk from either Lucien L'Allier station (orange line) or the Guy Concordia station (green line).



# THINGS TO DO IN MONTREAL

## VISIT ATWATER MARKET

Head to Montreal's beautiful Atwater Market for fresh and locally grown or processed foods, flowers and more.

## CHECK OUT MONTREAL'S BOTANICAL GARDENS

Located minutes from downtown, the Jardin Botanique de Montréal is the largest natural sciences museum complex in Canada!

## TAKE A STROLL AROUND OLD PORT

Visit Montreal's historic Old Port and enjoy the scenic architecture and the many restaurants, bars and food trucks!

## HIKE MOUNT ROYAL

May in Montreal is a great time to hike the Mount Royal loop! Be sure to check out the lookout point to see the best view of the city.



MOUNT ROYAL  
LOOKOUT



OLD MONTREAL



JARDIN BOTANIQUE  
DE MONTRÉAL



ATWATER MARKET



# NEARBY RESTAURANT SUGGESTIONS

## GRIFFINTOWN

Foxy

Junior

Nora Gray

SHAY

Slice + Soda Griffintown

AYLA

## OLD MONTREAL

Olive & Gourmando

Dispensa Italian Grocery

Dandy

Helena

Brit & Chips

Tiers Paysage

## SAINT-HENRI

Maquis Yasolo

Lloydie's St-Henri

Arthurs Nosh Bar

Satay Brothers

Restaurant Nozy

Sumac

