Schulich
MEDICINE & DENTISTRY

24th PAUL HARDING RESEARCH AWARDS DAY 2026

Wednesday, May 13, 2026,
Kings University College
266 Epworth Ave, London, ON N6A 2M3
A minimum of 25% of this program is dedicated to participant interaction

Research Day Learning Objectives:

1. Identify transdisciplinary research endeavours within the Department of Obstetrics & Gynaecology

2. Describe the essential nature of research and education in an academic health institution

3. Engage in discussions about relevant research in the field.

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University. You may claim a maximum of 6.25 hours (credits are automatically calculated).

Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

Western

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24th ANNUAL PAUL HARDING RESEARCH AWARDS DAY 2026

08:00	Registration & Morning Refreshments		
08:30 – 8:45	Dr. Taryn Taylor and Dr. Dan Hardy - Introduction & Welcome		
	Digital Poster Presentation	**Moderator: Dr. Eastabrook**	
8:45 – 8:50	Optimizing Placental Pathology Submissions at London Health Sciences Centre: A Choosing Wisely Quality Improvement Initiative	Hatim Alsolimani	Supervised by: Dr. Genevieve Eastabrook
8:50 – 8:55	Perinatal Mental Health of South Asian Immigrant in Canada: A Scoping Review	Bibi Hajira	Supervised by: Dr. Kimberley Jackson
8:55 – 9:00	Fertility Outcomes Following Chemotherapy for Gynecological Cancers	Meryl Hodge	Supervised by: Dr. Angelos Vilos
9:00 – 9:05	Adolescent Omega-3 Diet Supplementation as a Therapeutic Strategy to Mitigate the Effects of Prenatal THC Exposure	Amanda Kunst	Supervised by: Dr. Steven Laviolette
9:05 – 9:10	How Do Experiences of Trauma Drive Changes in Practice? – Narratives of The Obstetrics and Gynaecology Care Team	Chloe Lau	Supervised by: Dr. Taryn Taylor
9:10 – 9:20	Q&A		
9:20 – 9:25	Prehospital Management of Postpartum Hemorrhage and the Use of The Bakri Balloon: A Scoping Review	Mikayla Livingstone	Supervised by: Dr. Taryn Taylor
9:25 – 9:30	Mentorship for Family Planning and Parenthood in Surgery: A Pilot Study	Colleen Mackenzie	Supervised by: Drs. Oonagh Scallan and Taryn Taylor
9:30 – 9:35	Systematic Review of Transplacental Drug Transfer Published Data: Comparison of Ex-Vivo Placental Perfusion and In-Vivo Cord Blood Data	Vania Marzbanrad	Supervised by: Drs. Facundo Garcia-Bournissen and Janine Hutson

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9:35 – 9:40	Bridging Examination Standards and Student Knowledge: An Internal Review of Current Teaching Material at The Schulich School of Medicine	Rebecca Nakhoul	Supervised by: Dr. Laura Sovran
9:40 – 9:45	Glucagon-like peptide-1 receptor (GLP-1R) Agonists Use in Pregnancy and Impact on Pregnancy and Neonatal Outcomes	Suhaima Tunio	Supervised by: Dr. Barbra de Vrijer
9:45 – 9:55	Q&A		
9:55 – 10:00	Come from Away: A Qualitative Study on the Impact of Relocation for Antepartum Admission in Canada	Charlotte Roy	Supervised by: Dr. Harrison Banner
10:00 – 10:05	The Impact of Call Model Type on the Severity of Fatigue Experienced by Obstetrics and Gynecology Residents at London Health Sciences Centre (LHSC)	Audrey Shakespeare	Supervised by: Dr. Taryn Taylor
10:05 – 10:10	Non-invasive Detection of Placental Abnormalities in Trisomy 21 Using Human Trophoblast Stem Cell Models	Mary Tammo	Supervised by: Drs. Dean Betts and Stephen Renaud
10:10 – 10:15	Evaluating the Educational Experience at the Early Pregnancy Assessment Unit at the London Health Sciences Centre	Suhaima Tunio	Supervised by: Dr. Basim Abu Rafea
10:15 – 10:20	Investigating the Functional and Metabolic Deficits Resulting from Δ9-Tetrahydrocannabinol Exposure in Differentiating Human Myotubes.	Christian Natale	Supervised by: Dr. Daniel Hardy
10:20 – 10:30	Q&A		
10:30 – 10:45	Coffee Break		
	PGY 1 Project Proposals	**Moderator: Dr. Taylor**	
10:45 – 10:48	Impact of HPV Testing on Sexual Health and Vaccination: A Qualitative Cross-Sectional Survey Study	Jennifer Davis	Dr. Anjali Kulkarni

10:48 – 10:51	Outcomes of Expectant, Medical, and Surgical Management of Missed and Incomplete Abortion in an Early Pregnancy Assessment Unit – A Retrospective Study Proposal	Ziyad Hammad	Dr. Basim Abu-Rafea
10:51 – 10:54	Accessibility of Ovarian Tissue Cryopreservation (OTC) and Transplantation (OTT) Services in Canada for Eligible Cancer Patients Seeking Fertility Preservation	Stephanie Jarvi	Supervised by: Dr. Krista Cameron
10:54 – 10:57	Comparing Follitropin-delta Monotherapy with Combined Gonadotropin Therapy among Individuals with Poor Ovarian Response: A Retrospective Single-Centre Study	Yang (Doris) Liu	Supervised by: Dr. Basim Abu-Rafea
10:57 – 11:00	Refining Stillbirth Investigations: A Quality Improvement Approach to Evidence-Based, Patient-Centred Care	Lauren Mascarenhas	Supervised by: Dr. Genevieve Eastabrook
11:00 – 11:03	Delivering More Than Babies: Enhancing Care for Pregnant Adolescents Through a Multidisciplinary Prenatal Model	Maegan Miklas	Supervised by: Dr. Taryn Taylor and Dr. Carol King
11:03 – 11:06	Neuromodulation to Alleviate Chronic Pelvic Pain Associated with Endometriosis	Claudia Turco	Supervised by: Drs. Krista Cameron and Aimee Nelson
11:06 – 11:20	Q&A		
	Oral Presentations: Session 1 *Each presentation is 10 minutes with a 5-minute Q&A period.*		
11:25 – 12:55	**Group 1: Gynaecology & Gynaecologic Oncology**		**Moderator: Dr. Shepherd**
11:25 – 11:40	"I've Been Here Before, But Never Looked at the Ceiling": Narratives of Medical Trainees Who Took Illness-Based Leaves	Daniela Keren	Supervised by: Dr Taryn Taylor
11:40 – 11:55	Ovarian Cancer on TikTok: Analyzing Misinformation, Awareness, and Patient Perceptions	Myriam Harper	Supervised by: Dr Anjali Kulkarni
11:55 – 12:10	Risk Factors for Bladder Injury During Caesarean Delivery	Ellen He	Supervised by: Dr. Yvonne Leong

12:10 – 12:25	Development of Gynecologic Malignancy Following Endometrial Ablation	Meryl Hodge	Supervised by: Dr. Angelos Vilos
12:25 – 12:40	The Association Between Smoking and Joint Pain in Women Attending a Specialized Menopause Clinic	Taylor Roebotham	Supervised by: Dr. Taylor Roebotham
12:40 – 12:55	Divergent Role of ULK1 To Balance Mitochondrial Homeostasis and Bioenergetics in Ovarian Cancer Spheroids	Jack Webb	Supervised by: Dr. Trevor Shepherd
11:25 – 12:55	**Group 2: Obstetrics & Development**		**Moderator: Dr. Hardy**
11:25 – 11:40	Blastocyst Re-Expansion is Associated with Early Pregnancy Outcomes Independent of Morphology	Faisel Alorf	Supervised by: Dr. Krista Cameron
11:40 – 11:55	Identification of Non-Invasive Protein Biomarkers of Embryo Competence Using the Olink Proximity Extension Assay Platform	Amanda Forsyth-Greig	Supervised by: Dr. Basim Abu-Rafea
11:55 – 12:10	Reproductive, Pregnancy, and Neonatal Outcomes After Exposure to GLP-1 Receptor Agonists: A Narrative Review	Radiah Iskandarani	Supervised by: Dr. Facundo Garcia-Bournissen
12:10 – 12:25	Loss Of Osteopontin Improves Uterine Vascular Function in Hypertensive Pregnancy	Megan Lave	Supervised by: Dr. Stephen Renaud
12:25 – 12:40	The Functional and Structural Consequences of Early, Acute Prenatal Alcohol Exposure on the Peripheral Auditory System	Amy Pietrantonio	Supervised by: Drs. Katherine Willmore and Brian Allman
12:40 – 12:55	Prenatal Phytocannabinoid Exposure Reprograms Pancreatic Alpha and Beta Cell Function in Adult Offspring	Samuel Ugulini	Supervised by: Drs. Savita Dhanvantari and Daniel Hardy
12:55 – 1:45	Lunch		

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1:45 – 2:45

The Earl R. Plunkett Lecture

"Adverse pregnancy outcomes, postpartum management, and cardiovascular risk screening"

Graeme N Smith, MD, PhD
Editor-in-Chief of the Journal of Obstetrics and Gynaecology SOGC
Professor Emeritus, Department of Obstetrics & Gynecology,
Queen's University

Objectives:

1. List the pregnancy-related cardiovascular risk indicators (P-CVR)
2. Develop an action plan for a postpartum patients with one of these complications
3. Identify risk-reduction strategies for future pregnancies

This presentation will be 45 minutes long, with a 15-minute question & answer period.

Oral Presentations: Session 2
Each presentation is 10 minutes with a 5-minute Q&A period.

2:50 – 4:05	**Group 3: Gynaecology & Gynaecologic Oncology**		**Moderator: Dr. Shepherd**
2:50 – 3:05	Development and Validation of the Arabic Version of the Bladder Control Self-Assessment Questionnaire (B-SAQ)	Faisal Idris	Supervised by: Dr. Yvonne Leong
3:05 – 3:20	Financial Toxicity Among Patients with Gynecologic Malignancy in Southwestern Ontario	Sara Jones	Supervised by: Dr. Ji-Hyun Jang
3:20 – 3:35	The Autonomic Distribution of Pubocervical Fascia Can Predict Iatrogenic Neuropathy During Level-II Cystocele & Paravaginal Defect Repairs	Stephen Magliocchetti	Supervised by: Drs. Queena Chou and Tyler Beveridge
3:35 – 3:50	NUAK1 Controls Fibronectin Expression in a Spheroid Model of Epithelial Ovarian Cancer Metastasis.	Sarah McArthur	Supervised by: Dr. Trevor Shepherd
3:50 – 4:05	Through Thick and Thin: Findings from a Large Retrospective Study on the Impact of Endometrial Thickness on the Success of IUI	Tracy Pham	Supervised by: Dr. Basim Abu-Rafea

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2:50 – 4:05	Group 4: Obstetrics & Development		Moderator: Dr. Hardy
2:50 – 3:05	Transfer of Lumacaftor Across the Human Placenta in the Ex Vivo Placental Perfusion Model and Prediction of Safety in Human Pregnancy.	Alice Balluku	Supervised by: Drs. Janine Hutson and Facundo Garcia-Bournissen
3:05 – 3:20	Investigating the Effects of Early, Acute Ethanol Exposure on Cranial Neural Crest Cell-Mediated Facial Morphogenesis	Emily Barlow	Supervised by: Dr. Katherine Willmore
3:20 – 3:35	Behavioural Effects of Prenatal THC Exposure are Mitigated by Adolescent N-Acetylcysteine	Nicholas Hamati	Supervised by: Drs. Steven Laviolette and Daniel Hardy
3:35 – 3:50	Impact of Long COVID on Fertility Intentions Among Canadian Women: A Cross-Sectional Survey	Mandakini Jain	Supervised by: Dr. Genevieve Eastabrook
3:50 – 4:05	Delivering More Than Babies: Enhancing Care for Pregnant Adolescents Through a Multidisciplinary Prenatal Model	Charis Ng	Supervised by: Drs. Carol King and. Taryn Taylor
4:05 – 4:30	Reception, Closing Remarks, and Awards		

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This program has received an educational grant from:

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DIGITAL POSTER ABSTRACTS

Western

Presenters Name: Hatim Alsolimani

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Optimizing Placental Pathology Submissions at London Health Sciences Centre: A Choosing Wisely Quality Improvement Initiative

Supervisor: Dr. Genevieve Eastabrook

Authors: Hatim Alsolimani, Emily Coebel, Sukhman Brar, Genevieve Eastabrook

Abstract: Placental histopathology provides important diagnostic information in cases of adverse pregnancy outcomes, including fetal growth restriction, preterm birth, and stillbirth. However, substantial variability exists in clinician-driven placental submissions, and many specimens are submitted without clear evidence-based indication. This practice may increase pathology workload, prolong turnaround times, and reduce system efficiency. Local data evaluating submission patterns and diagnostic yield are currently lacking at London Health Sciences Centre (LHSC).

This study aims to determine the proportion of placental pathology submissions demonstrating clinically significant findings and to identify which clinical indications yield the highest diagnostic value. We will conduct a retrospective chart review of all placentas submitted for histopathological examination at LHSC between January 1, 2023 and December 31, 2025. Clinical data will be extracted from the electronic medical record and linked to pathology findings. Descriptive statistics will summarize submission patterns and outcomes. Associations between clinical indications and significant pathology will be analyzed using Chi-square or Fisher's exact testing.

We anticipate identifying both high- and low-yield indications for submission. Findings will inform development of a standardized institutional guideline aligned with Choosing Wisely Canada recommendations. This initiative aims to improve resource utilization, reduce unnecessary submissions, and enhance timely reporting of clinically meaningful pathology results. Results will be disseminated through publication and departmental quality improvement implementation.

Funding Source(s): Not applicable

Presenters Name: Bibi Hajira

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Digital Work-in-Progress

Title: Perinatal Mental Health of South Asian Immigrant in Canada: A Scoping Review

Supervisor: Dr. Kimberley Jackson

Authors: Bibi Hajira, Kimberley Jackson, Roula Hawa, Anam Shahil Feroz

Abstract: The perinatal period represents a time of increased vulnerability to mental health challenges, especially for South Asian immigrant women in Canada, who are disproportionately affected by depression, anxiety, trauma, and stress during pregnancy and postpartum. Existing research highlights migration-related stress, acculturation challenges, limited social support, language barriers, stigma, and cultural expectations as key risk factors influencing perinatal mental health. Despite South Asians constituting Canada's largest visible minority, their unique experiences remain understudied, with literature often aggregating immigrants broadly or focusing exclusively on postnatal contexts. This scoping review seeks to systematically map and synthesize published and grey literature on perinatal mental health among South Asian immigrant women residing in Canada, across both antenatal and postnatal periods, to answer the question: What is currently known about the perinatal mental health among South Asian immigrant women in Canada?

The review will be conducted in accordance with Joanna Briggs Institute (JBI) guidelines using the Participants-Concept-Context framework. Searches will be undertaken across MEDLINE, Embase, PsycINFO, CINAHL, Scopus, and targeted grey literature sources between 2000 and 2026. Included studies will focus on South Asian immigrant women, address perinatal mental health, and be conducted in Canada during pregnancy up to one year postpartum. Both qualitative and quantitative studies will be included. Data will be extracted using a tailored form capturing key study characteristics, resilience measures, and mental health outcomes. Two independent reviewers will conduct data extraction, with discrepancies resolved through consensus or third-reviewer adjudication. Findings will be synthesized thematically and presented narratively and in summary tables.

Results will clarify the scope, characteristics, and thematic gaps in the literature, identifying barriers, supports, coping strategies, service utilization, and interventions. This review will inform future research, culturally grounded practice, and policy tailored to South Asian immigrant women's perinatal mental health needs in Canada.

Funding Source(s): Not applicable

Presenters Name: Meryl Hodge

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Fertility Outcomes Following Chemotherapy for Gynecological Cancers

Supervisor: Dr. Angelos Vilos

Authors: Meryl Hodge, Jacob McGee, Basim Abu-Rafea, Angelos Vilos

Abstract: Literature surrounding the impact of chemotherapy on fertility, obstetric and infant outcomes for patients having undergone fertility preserving treatment for gynecologic cancers is scarce. Most commonly, epithelial ovarian cancers are treated with a combination of a platinum and taxane chemotherapy. According to the European Society of Human Reproduction and Embryology (ESHRE), there is currently a lack of robust data to counsel patients on the risk of gonadotoxicity associated with this combination and the risk is currently classified as unknown. Bleomycin, etoposide and cisplatin chemotherapy regimens are typically used to treat non-epithelial ovarian cancers. Our objective is to investigate the fertility, obstetric and infant outcomes in patient with gynecological cancers who have undergone fertility sparing surgery and chemotherapy. This will be a population-based retrospective cohort study using ICES Western databases. Our primary outcome will be live birth. Secondary outcomes will include fertility outcomes (premature ovarian insufficieny/menopuse, amenorrhea), obstetric outcomes (spontaneous or therapeutic abortion, preterm birth, preterm premature rupture of membranes, stillbirth, gestational age and birthweight) and infant outcomes (APGARs, NICU admission, hospital length of stay, neonatal mortaility, cerebral palsy, hospitalization within first year of life). Baseline characteristics will include: age, sex, rural residence, neighborhood income quintile, Charlson Comorbidity Index score, previous gynecologic surgery, and history of diabetes, hypertension, number of family physician visits, emergency department visits, and hospitalizations within the past year. Patients will be matched to those with a previous unilateral oophorectomy for benign disease. Patients with a previous hysterectomy or bilateral oophorectomy will be excluded.

Funding Source(s): Not applicable

Presenters Name: Amanda Kunst

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Digital Work-in-Progress

Title: Adolescent Omega-3 Diet Supplementation as a Therapeutic Strategy to Mitigate the Effects of Prenatal THC Exposure

Supervisor: Dr. Steven Laviolette

Authors: Amanda Kunst, Marieka DeVuono, Enzo Perez Valenzuela, Leandro Val Sayson, Nicholas Hamati, Marwa Idrissi, Steven Laviolette

Abstract: Evidence indicates that the use of Δ9-tetrahydrocannabinol (THC), the primary intoxicating component of cannabis, during pregnancy can reduce essential fatty acids such as omega-3 (ω3) within the fetal brain. Both ω3 deficiency and prenatal THC exposure (PTE) are associated with long-term cognitive deficits and disruptions in dopaminergic (DA) neurotransmission in mesocorticolimbic circuits, suggesting that ω3 downregulation may drive PTE-induced behavioural deficits. Although research has shown that perinatal ω3 enrichment prevents several consequences of PTE, it remains unknown whether a later-life intervention can reverse these effects. Thus, this study examines whether an enriched ω3 diet administered during adolescence, a window characterized by synaptic and fatty acid remodeling, can mitigate PTE-induced deficits.

Pregnant rats received escalating edible doses (2-10 mg/kg) of Nutella + THC or plain Nutella from gestational day 7-22. Consistent with previous findings, preliminary data show that edible PTE reduced birth weight relative to controls, indicating fetal growth restriction, a condition associated with increased vulnerability to cognitive deficits. From postnatal day 30-51, offspring will be exposed to either an enriched ω3 diet or a control diet.

In adulthood, behavioural tasks will assess memory, social interaction and anxiety behaviours. We predict that PTE will impair cognition in both sexes and increase anxiety-like behaviours in males. In-vivo extracellular electrophysiology will evaluate DA, GABAergic, and glutamatergic neuronal firing in the ventral tegmental area and medial prefrontal cortex, where PTE is expected to induce hyperactive DA firing. We further hypothesize that adolescent ω3 dietary supplementation will restore neuronal firing and mitigate PTE-induced behavioral impairments.

Funding Source(s): Not applicable

Presenters Name: Chloe Lau

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: How Do Experiences Of Trauma Drive Changes In Practice? – Narratives Of The Obstetrics And Gynaecology Care Team

Supervisor: Dr. Taryn Taylor

Authors: Chloe Lau, Siobhan Woods, Taryn Taylor

Abstract: Exposure to traumatic births in the field of obstetrics and gynaecology has been linked to challenges with guilt, secondary traumatic stress, and burnout amongst obstetric providers. Yet critical gaps remain in our understanding of this phenomenon. For example, in our scoping review on the impact of traumatic obstetrical events on practice patterns, we found a lack of representation of trainees and no mention of the anesthesia team. From the existing literature, we discovered an increase in interventional practices, including caesarean sections, non-indicated fetal surveillance, and episiotomy. Our ongoing qualitative study aims to characterize how experiences with obstetrical trauma have impacted personal or institutional practices at London Health Sciences Center. Thus far, 10 semi-structured interviews have been completed. This initial group included registered nurses (5), obstetrical consultants (2) and residents (2), and anesthesia residents (1). Preliminary analysis identified defining characteristics of traumatic obstetrical events as unexpected, emergent obstetrical events that evoke negative emotions that have a persistent and significant impact. Developing insights include participants' reflections on increased perception of risk and hypervigilance in the period following the event leading to a lower threshold for investigations or intervention. In addition, some participants report avoidance of procedures associated with the traumatic event, such as operative deliveries. Mediating factors include guilt, rumination, a culture of blame, and a desire to exert control. Future recruitment aims to expand our participant group to additional obstetrics and anesthesia trainees and include the perspectives of our midwifery and family medicine obstetrics colleagues.

Funding Source(s): Academic Enrichment Fund

Presenters Name: Mikayla Livingston

Category: Undergrad Medical Student

Presentation Type: Digital Work-in-Progress

Title: Prehospital Management of Postpartum Hemorrhage and the Use of The Bakri Balloon: A Scoping Review

Supervisor: Dr. Taryn Taylor

Authors: Mikayla Livingston, Elsa Oyerinde, Sinead Osivwemu, Taryn Taylor

Abstract: Postpartum hemorrhage (PPH) remains a leading cause of preventable maternal morbidity and mortality, with rising incidence in Ontario, particularly in remote and northern regions. Ornge, Ontario's provincial critical care transport service, frequently manages obstetrical emergencies in geographically isolated and resource-limited settings where access to surgical intervention and blood products is limited. Because many Ornge aircraft cannot carry blood products, maternal deaths secondary to PPH have occurred during transport. These constraints demonstrate an urgent need for safe, practical, and temporizing interventions that can be implemented in the prehospital environment. The Bakri balloon, an intrauterine tamponade device used to control hemorrhage, has demonstrated effectiveness in hospital settings; however, its use in prehospital care and other resource limited settings has not been well described. A recent Ornge initiative training critical care paramedics in Bakri balloon insertion represents one of the first efforts worldwide to introduce this intervention into prehospital clinical practice. This scoping review aims to describe prehospital Bakri balloon deployment, summarize existing prehospital approaches to PPH management, explore use in other settings, and identify evidence gaps. A comprehensive literature search was conducted in MEDLINE (via Ovid or PubMed), Embase, CINAHL, Web of Science/Scopus, and CENTRAL. Titles and abstracts were screened in duplicate, followed by full-text review. Peer-reviewed and grey literature were included. Data were charted and synthesized descriptively to identify key concepts, contexts, and evidence gaps. Findings will inform protocol development, future research, and policy focused on improving maternal outcomes in rural, remote, and low-resource settings.

Funding Source(s): Not applicable

Presenters Name: Colleen MacKenzie

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Mentorship for Family Planning and Parenthood in Surgery: A Pilot Study

Supervisor: Dr. Oonagh Scallan

Authors: Colleen MacKenzie, Taryn Taylor, Oonagh Scallan

Abstract: Despite increasing awareness of gender inequity in medical training and practice, women physician graduates face ongoing reproductive challenges such as delayed childbearing and increased need for assisted reproductive technology. These barriers to family planning may threaten the recruitment and retention of skilled, qualified women surgeons. Although existing literature documents these challenges, there is a critical gap in evaluated interventions, particularly structured mentorship programs, addressing fertility and family planning for all surgical trainees. This study aims to explore how participation in a formal mentorship program influences surgical trainees' experiences and perceptions of family planning and parenthood during training. Using a constructivist grounded theory approach, we will conduct semi-structured interviews with Canadian surgical trainees and faculty to explore baseline experiences and perceptions of mentorship and family planning. By recruiting both men and women, we will be able to explore how gender shapes this terrain. Subsequently, trainees will be offered to participate in a structured mentorship program with surgeons experienced in navigating parenthood in a surgical specialty. Following mentorship engagement, mentees and mentors will complete follow-up interviews to evaluate any self-perceived changes. Data will be analyzed iteratively using constant comparative methods to generate a grounded theory explaining the social processes shaping family planning experiences in surgical training. We anticipate that structured mentorship will reduce perceived stigma, enhance practical guidance, and improve trainees' confidence in navigating fertility, pregnancy, and parenthood. Findings will inform the development of a reproducible, mentorship framework to better support parenthood in surgery and strengthen recruitment, retention, and trainee well-being.

Funding Source(s): Department of Surgery IRF

Presenters Name: Vania Marzbanrad

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Digital Work-in-Progress

Title: Systematic Review of Transplacental Drug Transfer Published Data: Comparison of Ex-Vivo Placental Perfusion and In-Vivo Cord Blood Data

Supervisor: Dr. Facundo Garcia-Bournissen and Dr. Janine Hutson

Authors: Vania Marzbanrad, Al Privorozky, Katherine Chen, Eddie Chan, Michelle Coyle, Alla Iansavitchene, Facundo Garcia-Bournissen, Janine Hutson

Abstract: The safety of medication use during pregnancy remains a major clinical challenge due to limited data. The ex-vivo dual perfusion of the human placenta is a widely used experimental approach to estimate maternal-to-fetal drug transfer; however, validation of data from this model against in-vivo human data remains limited. This project aims to systematically evaluate the validity of the ex-vivo placental perfusion model results by comparing reported fetal:maternal (F:M) drug transfer ratios with corresponding in-vivo umbilical cord:maternal concentration (C:M) data across multiple therapeutic drug classes.

A systematic review was conducted using MEDLINE, Embase, and Embase Classic to identify studies published from 2010 onwards, updating the review by Hutson et al. (2011), that employed dual perfusion of a term human placentae with therapeutic drugs. 2494 Titles and abstracts were screened, followed by full-text review of 104 studies, resulting in 81 eligible ex-vivo perfusion studies for data extraction. Data include drug identity and class, reported or calculated F:M ratios, experimental configuration, protein binding conditions, and achievement of steady state. Targeted literature searches for in-vivo cord blood data corresponding to each drug identified in the literature review will be completed to enable qualitative and quantitative comparison of placental transfer observed ex-vivo versus in-vivo. Data analysis is ongoing. Drugs will be categorized as demonstrating no transfer, limited transfer, transfer, or fetal accumulation.

This work will provide an updated validation of the placental perfusion model and inform refinement of PBPK approaches used to predict fetal drug exposure, supporting improved clinical decision-making for pharmacotherapy during pregnancy.

Funding Source(s): American Medical Organization of Southwestern Ontario (AMOSO)

Presenters Name: Rebecca Nakhoul

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Bridging Examination Standards and Student Knowledge: An Internal Review of Current Teaching Material at The Schulich School of Medicine

Supervisor: Dr. Laura Sovran

Authors: Rebecca Nakhoul, Laura Sovran

Abstract: All medical school graduates in Canada are expected to complete the Medical Council of Canada Qualifying Examination (MCCQE), which aims to assess the knowledge and clinical skills necessary for residency. The curriculum at the Schulich School of Medicine is divided into didactic and clinical components. While the aim is to prepare students for the MCCQE, as well as residency, differences in clinical exposure during clerkship can result in variable coverage of relevant competencies. Throughout this project, an internal review will be completed to compare medical students' perceived understanding of key topics in Obstetrics and Gynecology to relevant learning objectives. To assess this, a survey was developed by cross-referencing OBGYN-specific learning objectives on the MCCQE. Medical students will then be surveyed prior to the beginning of clerkship in order to ascertain whether didactic teaching appropriately covered these topics. The same cohort will then be surveyed prior to graduation to capture the learning that occurs through clinical rotation, but to ensure that variability in clinical exposure is also accounted for. Once data collection is complete, an analysis will be completed to compare learners' perceived preparedness for the MCCQE and supervised practice in a general medicine scope. Anticipated outcomes include completion of an internal review of the Undergraduate Medical Curriculum with implications for medical education at the Schulich School of Medicine, such as targeted development of didactic lectures or simulations.

Funding Source(s): Not applicable

Presenters Name: Suhaima Tunio

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Glucagon-like peptide-1 receptor (GLP-1R) Agonists Use in Pregnancy and Impact on Pregnancy and Neonatal Outcomes

Supervisor: Dr. Barbra de Vrijer

Authors: Suhaima Tunio, Barbra de Vrijer

Abstract: Background: Glucagon-like peptide-1 receptor (GLP-1R) agonists are increasingly prescribed for type 2 diabetes, obesity, and polycystic ovarian syndrome, with emerging evidence supporting their role in fertility. As the use of these medications expands among reproductive-aged women, inadvertent exposure during the preconception period or early pregnancy is becoming more common. Although observational studies and case reports have not demonstrated a significant increase in major congenital malformations with first-trimester exposure, data is limited and guidance regarding discontinuation timing before conception remains variable.

Objective: To describe maternal, pregnancy, and neonatal outcomes following GLP-1R agonist exposure during pregnancy through a case series of five affected pregnancies.

Methods: We will conduct a retrospective chart review of five pregnant patients with documented GLP-1R agonist use during pregnancy. Consenting participants will complete a supplemental interview to clarify exposure timing, indication, and adverse effects. We will evaluate maternal variables, pregnancy outcomes, and neonatal outcomes.

Anticipated Results: We anticipate that most patients will have used GLP-1R agonists for obesity or diabetes management and may demonstrate a high rebound weight gain on stopping the medication during pregnancy. This may result in some impact on fetal growth, but based on previous research, it is unlikely that any specific teratogenic effects will be observed.

Conclusion: This five-case series will contribute detailed clinical data to the limited literature regarding GLP-1R agonist exposure in pregnancy. Findings aim to inform future research on the development of prospective studies, which may then inform clinical guidelines for the use of GLP-1R agonists in reproductive-aged women.

Funding Source(s): Not applicable

Presenters Name: Charlotte Roy

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Come From Away: A Qualitative Study on the Impact of Relocation for Antepartum Admission in Canada

Supervisor: Dr. Harrison Banner

Authors: Charlotte Roy, Lauren Columbus, Taryn Taylor, Alice Schoffel, Laura McMurphy, Jennifer Ryder, Harrison Banner

Abstract: Despite efforts across Canada to support delivery of maternity care close to home, many birthing persons require travel to a higher-level birthing centre. Even prior to delivery, some birthing persons will require antepartum admission. Antepartum admissions are associated with psychosocial challenges and can impact both emotional and mental health. Existing literature has explored the impact of labour and delivery away from home however little exists that explores the impact of relocation specific to the antepartum. Antepartum admissions may involve a more prolonged duration than labour, and present different challenges and stressors. This study examines the effect of relocation for antepartum admission, painted against the unique geography of Canada. Using semi-structured face-to-face interviews, participants who are admitted to the antenatal unit of Victoria Hospital will be invited to share their experiences with antepartum relocation, with sequential interviews across the duration of their admission. Using a reflexive approach, thematic analysis will be carried out to interpret and assign meaning to the data collected. To further support an experiential orientation in this phenomenological research, photo-elicitation will be used as a tool to capture the experience, driven by participant-selected photographs true to participants' lived experience. Findings of this research will allow for a better understanding of the challenges faced in antepartum admission, and may contribute to improved supports and a deeper understanding of the patient experience, while the role of photo elicitation is poised to contribute to the contemporary qualitative research landscape.

Funding Source(s): Not applicable

Presenters Name: Audrey Shakespeare

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: The Impact of Call Model Type on the Severity of Fatigue Experienced by Obstetrics and Gynecology Residents at London Health Sciences Centre (LHSC)

Supervisor: Dr. Taryn Taylor

Authors: Audrey Shakespeare, Taryn Taylor

Abstract: Despite that fatigue is a well-documented risk to both patient and resident safety, sleep deprivation and extended duty hours have long been considered a necessity in medical training. The "necessity" argument positions fatigue as something that can be overcome with knowledge, experience and training. Others have justified extended call shifts based on the assumption that such shifts provide superior, unique learning opportunities in quick succession, without accounting for the detrimental effects of fatigue on learning. There is limited evidence regarding how different call models impact the severity of fatigue experienced by residents. Using two validated scales of fatigue severity, we will measure the level of fatigue experienced by Obstetrics and Gynecology residents at London Health Sciences Centre (LHSC) during two different call shift models, comparing extended call shifts of 26 hours to night float call shifts lasting approximately 15 to 16 hours for 4 nights in a row. Residents will be surveyed at the beginning and end of each call shift using the Epworth Sleepiness Scale (ESS) and the end of their shifts using the Brief Fatigue Inventory (BFI). The ESS is a method of quantifying how fatigue changes over the course of a shift. The BFI will be used to measure the severity of fatigue experienced in the past 24hrs. The anticipated outcome from this study is to inform further changes to the current residency call model at the Obstetrics and Gynecology residency program at LHSC.

Funding Source(s): Not applicable

Presenters Name: Mary Tammo

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Digital Work-in-Progress

Title: Non-invasive Detection of Placental Abnormalities in Trisomy 21 Using Human Trophoblast Stem Cell Models

Supervisor: Dr. Dean Betts and Dr. Stephen Renaud

Authors: Mary Tammo, Dean Betts, Stephen Renaud

Abstract: A healthy pregnancy depends on the proper formation of a placenta, a temporary organ formed early in development to deliver nutrients and oxygen to the growing fetus. In gene dosage disorders like Down syndrome (trisomy 21), problems with placental development are common and may contribute to miscarriage or long-term health issues in affected children. Unfortunately, abnormalities are difficult to detect early in pregnancy. This research aims to create a reliable cell model using pluripotent stem cells derived from humans with Down syndrome to induce trophoblast cells that resemble those found in the early placenta. These cells secrete small molecules called microRNAs (miRNAs) that help regulate cell function and gene expression. By analyzing specific miRNAs released from these cells, this study can identify unique expression patterns or “miR-prints” that correlate with poor placental development seen in chromosomal disorders like trisomy 21, proposing a novel technique to improve assisted reproduction outcomes. Instead of taking a biopsy, clinicians can examine the flood surrounding the embryo, reducing invasiveness, and improving embryo selection for in vitro fertilization (IVF). Ultimately, this work may improve IVF outcomes for individuals facing infertility or carrying embryos with chromosomal abnormalities. By reducing the need for invasive testing, it could also lower costs, shorten time to pregnancy, and help ease the emotional and financial burden often experienced during fertility treatment. It may also offer new insights into why symptoms of Down syndrome vary in severity, helping to uncover the underlying biology of extra chromosomal disorders.

Funding Source(s): Not applicable

Presenters Name: Suhaima Tunio

Category: Resident/Clinical Fellow

Presentation Type: Digital Work-in-Progress

Title: Evaluating the Educational Experience at the Early Pregnancy Assessment Unit at the London Health Sciences Centre

Supervisor: Dr. Basim Abu-Rafea

Authors: Suhaima Tunio, Basim Abu-Rafea

Abstract: Background: The Early Pregnancy Assessment Unit (EPAU) tertiary care centre in London, Ontario, provides specialized evaluation and management of early pregnancy complications for patients under 12 weeks' gestation. EPAU also serves as a core educational site for medical students and postgraduate trainees at Western University. Despite its educational value, learner experiences within the EPAU have not been formally evaluated.

Objectives: To assess trainees' perceptions of the educational experience at the EPAU, with specific evaluation of (1) clinical supervision and direction, (2) opportunities for hands-on learning and autonomy, (3) exposure to key competencies including ultrasound, counselling, and clinical decision-making, (4) breadth and diversity of case exposure, and (5) perceived preparedness for future clinical practice. Findings will inform targeted program improvements and the development of key performance indicators (KPIs).

Methods: A mixed-methods study design will be employed over several months. Medical learners who have completed at least one EPAU shift will be asked to complete an anonymous post-rotation survey via a university-approved platform (Qualtrics). The survey will include Likert-scale items alongside open-ended questions exploring expectations, challenges, and suggested improvements. Descriptive statistics will summarize quantitative data along with subgroup comparisons across training levels and specialties. Qualitative responses will undergo thematic analysis by two independent reviewers when enough responses are available, with discrepancies resolved by consensus.

Expected Impact: This study will identify strengths and gaps in the EPAU learning environment, enabling curricular enhancements and quality improvement. Results will be disseminated to residents and the department and will be used to inform broader educational practices in early pregnancy care settings.

Funding Source(s): Not applicable

Presenters Name: Christian Natale

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Digital Work-in-Progress

Title: Investigating the Functional and Metabolic Deficits Resulting from Δ9-Tetrahydrocannabinol Exposure in Differentiating Human Myotubes.

Supervisor: Dr. Daniel Hardy

Authors: Christian Natale, Sebastian Vanin, Daniel B. Hardy

Abstract: Δ9-tetrahydrocannabinol (THC) exposure during pregnancy can lead to fetal growth restriction which is suggested to hinder muscle growth and development. Moreover, Δ9-THC-exposed rat offspring exhibit overall glucose intolerance and insulin resistance within the muscle. While the endocannabinoid system has been implicated in the regulation of myogenic fusion and metabolism in skeletal muscle, little is known about the impact of Δ9-THC exposure during myogenesis on skeletal muscle development or function. Preliminary findings in L6 rat myoblasts have shown that Δ9-THC exposure during myogenesis alters the expression of genes associated with the development of skeletal muscle, metabolic function and cellular response to oxidative stress. To date, the effects on early human myogenesis remain elusive. We hypothesize that during myogenesis, Δ9-THC directly impairs both myogenic fusion and metabolic function. We will use a translatable model of Δ9-THC exposure during myogenesis, using primary human myoblasts. Cells will be exposed to a low or high physiological dose of Δ9-THC with or without selective cannabinoid receptor antagonists. Supplementation will occur through growth and differentiation, followed by a treatment free period. Cells will be assessed at the beginning and end of this period for changes in (1) myoblast fusion and myogenic protein abundance; (2) the insulin signaling pathway (Akt/ PI3K cascades); (3) oxidative metabolism and (4) glucose uptake in response to insulin. We aim to characterize the lasting impacts resulting from Δ9-THC exposure during skeletal muscle development, and to better inform our understanding of how gestational THC exposure may impact glucose and insulin homeostasis in postnatal life.

Funding Source(s): Supported by CIHR Project Grant R4228A28.

Schulich
MEDICINE & DENTISTRY

PROPOSALS

Western

Presenters Name: Jennifer Davis

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Impact of HPV Testing on Sexual Health and Vaccination: A Qualitative Cross-Sectional Survey Study

Supervisor: Dr. Anjali Kulkarni

Authors: Jennifer Davis, Anjali Kulkarni

Abstract: Human papilloma virus (HPV) is the most prevalent sexually transmitted infection among adults worldwide. Over 75% of sexually active Canadians have been exposed to HPV in their lifetime. There are over 40 subtypes of genital HPV which include low-risk subtypes causing warts and high-risk subtypes causing nearly all cases of cervical cancer. Certain types of HPV are preventable with vaccination. HPV vaccination programs have been demonstrated to decrease rates of cervical precancer and cancer. Despite school-based vaccination programs available across Ontario since 2007, only 55% of eligible students were vaccinated in the last school year. In March 2025, HPV-based cervical cancer screening was implemented in Ontario. Benefits include earlier detection of precursor lesions and longer screening intervals. However, it introduces psychological considerations regarding sexual health and function, given this is often the patient's first time hearing about HPV. Previous studies have shown an increase in short-term anxiety, distress, and concerns regarding partner disclosure. This cross-sectional survey study will assess patient perspectives on HPV vaccination, sexual health, and psychological impact of HPV-based cervical cancer screening, when they are seen in colposcopy. Anticipated outcomes include creation of patient-informed resources and information to improve sexual health and HPV vaccine awareness.

Funding Source(s): Not applicable

Presenters Name: Ziyad Hammad

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Outcomes of Expectant, Medical, and Surgical Management of Missed and Incomplete Abortion in an Early Pregnancy Assessment Unit – A Retrospective Study Proposal

Supervisor: Dr. Basim Abu-Rafea

Authors: Ziyad Hammad, Sara Alabed, Basim Abu-Rafea

Abstract: Ziyad Hammad MD[1], Sara Alabed BSc[2], Basim Abu Rafea MD[1]
[1] Obstetrics and Gynecology Department, London Health Sciences Centre, London, ON
[2] Schulich School of Medicine, Western University, London, ON
It is hypothesized that medical management of missed and incomplete abortion with misoprostol will be associated with higher rates of complete uterine evacuation without subsequent surgical intervention compared with expectant management. It is further hypothesized that patients managed medically will experience lower rates of unplanned acute care utilization than those managed expectantly (Coomarasamy et al., 2021; Ghosh et al., 2021).
This study will be a retrospective cohort study of all patients diagnosed with missed or incomplete abortion who presented to the Early Pregnancy Assessment Unit (EPAU) at London Health Sciences Centre (LHSC), London, Ontario, between January 1, 2020, and December 31, 2025. The study aims to evaluate how clinical outcomes differ between expectant, medical (misoprostol), and surgical management strategies. Primary outcomes will include rates of complete uterine evacuation without the need for subsequent surgical intervention and frequency of unplanned acute care utilization, including emergency department visits and hospital admissions. Secondary outcomes will include complication rates such as hemorrhage and infection, the need for repeat misoprostol dosing, and escalation to surgical evacuation following initial expectant or medical management.
By systematically comparing effectiveness, safety, and healthcare utilization across these three approaches, this research aims to inform evidence-based management of early pregnancy loss within a Canadian tertiary-care setting.

Funding Source(s): Not applicable

Presenters Name: Stephanie Jarvi

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Accessibility of Ovarian Tissue Cryopreservation (OTC) and Transplantation (OTT) Services in Canada for Eligible Cancer Patients Seeking Fertility Preservation

Supervisor: Dr. Krista Cameron

Authors: Stephanie Jarvi, Krista Cameron

Abstract: The incidence of cancer among women of reproductive age is on the rise with approximately 700,000 new diagnoses yearly worldwide1. However, the survival rates from cancer are improving due to earlier diagnosis and improved treatments1,2. Cancer treatments can cause long-term side effects, including reduced fertility3. The current fertility preservation options available in Canada include oocyte cryopreservation, embryo cryopreservation, and more recently ovarian tissue cryopreservation and transplantation (OTC and OTT). OTC is the only treatment option available to prepubertal patients, and for patients who cannot delay cancer treatment by 2-3 weeks for a cycle of ovarian stimulation4.

Since 2019, OTC is no longer considered experimental by international societies, and was endorsed by the Canadian Fertility and Andrology Society in 20204,5. However, there is limited data available on the uptake, availability and success of this treatment option across Canada. The goal of our project is to identify centres performing OTC, the number of procedures that have been performed, the techniques being used, and success rates across Canada. Additionally, our goal is to identify barriers to the implementation of this treatment option.

We will perform a cross-sectional survey study using a semi-structured questionnaire administered to all Canadian fertility clinics which provide in-vitro fertilization services. Quantitative and qualitative data analysis will be performed. We anticipate our data will demonstrate the availability of OTC in Canada, outline gaps in care and help inform efforts to improve access to this fertility preservation option. We plan to disseminate this research through publication and presentation.

Funding Source(s): Not applicable

Presenters Name: Yang (Doris) Liu

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Comparing Follitropin-delta Monotherapy with Combined Gonadotropin Therapy among Individuals with Poor Ovarian Response: A Retrospective Single-Centre Study

Supervisor: Dr. Basim Abu-Rafea

Authors: Yang (Doris) Liu, Basim Abu-Rafea

Abstract: Infertility affects approximately 11-16% of Canadian couples trying to conceive. It is often addressed with assisted reproductive technologies, such as in vitro fertilization (IVF) and intracytoplasmic sperm injection (ICSI) that start with controlled ovarian stimulation (COS). Established COS protocols vary in exogenous gonadotrophins, pituitary suppression methods, and trigger agents. However, optimizing COS outcomes in poor responders remains a major challenge, with limited evidence comparing different treatment algorithms among this patient population. Our project aims to assess the efficacy of follitropin-delta monotherapy against alternative protocols in individuals with poor ovarian response, defined using the Bologna criteria. We plan to conduct a single-centre retrospective cohort study on poor responders entering fresh IVF/ICSI cycles between January 1, 2019 and December 31, 2025. Two groups will be identified: the Follitropin-delta Monotherapy Group (where multi-follicular stimulation was done with follitropin-delta alone) and the Combined Gonadotropin Group (where patients used other recombinant gonadotropin preparation or additional urinary menotropin). For individuals with multiple eligible cycles, only the last cycle will be included. We will extract de-identified data from chart review. The primary outcome of interest is the number of mature oocytes retrieved. Secondary outcomes are the number of usable embryos and clinical pregnancy rate. Additional measures such as live birth rate, cycle cancellation rate, and medication cost may also be assessed. Adjusted analyses will be performed where sample size permits. We expect to use an evidence-based approach to provide clinical insight as part of a quality improvement effort, with potential peer-reviewed publications and presentations at national forums.

Funding Source(s): Not applicable

Presenters Name: Lauren Mascarenhas

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Refining Stillbirth Investigations: A Quality Improvement Approach to Evidence-Based, Patient-Centred Care

Supervisor: Dr. Genevieve Eastabrook

Authors: Lauren Mascarenhas, Genevieve Eastabrook

Abstract: Stillbirth, the death of a baby at or after 20 weeks of gestation, occurs approximately 3300 times each year in Canada, representing a significant issue for Obstetrician-Gynecologists and their patients. National rates have not declined over the last several years despite rapid advancements in healthcare. Comprehensive fetal and maternal investigations are performed following stillbirth to identify potential etiologies and guide counselling regarding the risk of recurrence in future pregnancies. However, the uncertain clinical utility of investigations, high associated costs, and inconsistent follow-up of results highlight a need for refining current approaches.

A key gap in practice is the lack of standardized, evidence-based investigations that balance diagnostic yield, cost, and communication of results. Additionally, limited evaluation exists regarding whether ordered investigations alter clinical management or are consistently conveyed to patients at our institution.

The primary objectives of this quality improvement study are to evaluate the literature supporting investigations following stillbirth at London Health Sciences Centre and create a new order set that is evidence-informed. We aim to assess whether this intervention improves appropriateness of testing, reduces unnecessary costs, and enhances follow-up and communication of results.

This project will involve a literature review of recommended fetal and maternal investigations, development and implementation of a revised PowerChart order set, and post-implementation evaluation including provider feedback and follow-up metrics.

Anticipated outcomes include a reduction in redundant testing and enhanced patient-centred care. Findings will inform institutional practice and contribute to broader efforts to optimize and standardize stillbirth evaluation protocols nationally through publication of our findings.

Funding Source(s): Not applicable

Presenters Name: Maegan Miklas

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Delivering More Than Babies: Enhancing Care for Pregnant Adolescents Through a Multidisciplinary Prenatal Model

Supervisor: Dr. Taryn Taylor and Dr. Carol King

Authors: Maegan Miklas, Charis Ng, Taryn Taylor, Carol King

Abstract: National obstetrical guidelines recommended that pregnant adolescents need multidisciplinary, interprofessional, and accessible models of care to address their complex medical and psychosocial needs. Existing literature highlights that various adolescent-focused programs across the nation improve maternal and obstetrical health outcomes. However, there remains a notable gap in the literature regarding the adolescent patient perspective, particularly with respect to whether these programs adequately meet their perceived needs during the prenatal and immediate postpartum periods. Thus, this study aims to identify the perceived usefulness of our multidisciplinary Young Persons Pregnancy Clinic (YPPC) and the barriers that adolescents experience during their prenatal and postnatal periods. In phase one of the study, we developed a patient-reported questionnaire focused on the usefulness of numerous prenatal resources. For phase two of the study, we are focused on conducting semi-structured interviews to gain further insight into the perspectives of these patients. We will explore the perceived strengths and weaknesses of the prenatal program, barriers to attending appointments, potential solutions, and any programmatic improvements to improve antenatal care. For phase three of the study, we are focused on conducting semi-structured interviews in the postnatal period to help identify barriers to preparedness for the postnatal period including resources, unmet needs in the postnatal period, and contraceptive supports. These insights will inform changes to YPPC to better fit the needs of our current and future patients. Findings will also be disseminated at local and national conferences.

Funding Source(s): Dept of Ob/Gyn

Presenters Name: Claudia Turco

Category: Resident/Clinical Fellow

Presentation Type: Proposal

Title: Neuromodulation to Alleviate Chronic Pelvic Pain Associated with Endometriosis

Supervisor: Dr. Krista Cameron and Dr. Aimee Nelson

Authors: Claudia Turco, Stevie Foglia, Karishma Ramdeo, Harsha Shanthanna, Meghan O'Leary, Margaret Fahnestock, Krista Cameron, Aimee Nelson

Abstract: Endometriosis is a common cause of chronic pelvic pain, and many patients continue to experience significant symptoms despite hormonal therapy or surgery. Increasing evidence suggests that, in some individuals, pain becomes amplified by changes in how the central nervous system processes pain signals (central sensitization).

Repetitive transcranial magnetic stimulation (rTMS) is a non-invasive brain stimulation technique already well established for use in other chronic pain conditions. The treatment delivers brief magnetic pulses to specific brain regions to modulate pain pathways. Small preliminary studies in endometriosis are promising but lack rigorous placebo-controlled data.

This double-blind randomized trial will enroll 36 adults with moderate-to-severe endometriosis-associated pain. Participants will receive either active rTMS or sham stimulation over 20 sessions in 30 days. The primary outcome is change in pain scores, with additional measures assessing quality of life, medication use, mood, sleep, and pain coping. Blood biomarkers (BDNF and NGF) will explore potential biologic mechanisms. To explore the longitudinal benefit of the intervention, these outcomes will also be assessed 1-month post-intervention.

We hypothesize that rTMS will provide clinically meaningful pain relief compared with placebo. If effective, this study could introduce a novel, non-hormonal, non-surgical adjunct for patients with refractory endometriosis pain and help address the central pain component that is often undertreated in gynecologic practice. The results will be disseminated through presentations at both neurostimulation and OBGYN conferences to highlight the interdisciplinary nature of this work.

Funding Source(s): Not applicable

Schulich
MEDICINE & DENTISTRY

ORAL ABSTRACTS

Western

Presenters Name: Daniela Keren

Category: (PhD)

Presentation Type: Oral Presentation

Title: "I've Been Here Before, But Never Looked at the Ceiling": Narratives of Medical Trainees Who Took Illness-Based Leaves

Supervisor: Dr. Taryn Taylor

Authors: D. Keren, M. Kelly, L. Lingard, P. Teunissen, T. Taylor

Abstract: Introduction: Medical training is imagined as linear and uninterrupted, yet trainees may become ill and require a leave of absence. Illness-based leaves can be fraught with stigma, opaque processes, and cultures that valorize endurance. Little is known about trainees' experiences of illness-based leaves.

Methods: We conducted a narrative inquiry using Riessman's framework for narrative analysis. Canadian physicians who had taken an illness-based leaves during medical school or residency were recruited nationwide. Semi-structured interviews (Nov 2022–Jul 2023) were recorded and transcribed verbatim. Analysis was inductive and iterative, attending to narrative content and structure to understand meaning-making and shifts in positioning. Rigour was supported through reflexivity and team analysis.

Results: Seven participants described illness-based LOAs for diverse conditions. Narratives shared an arc: (1) identity disruption as illness fractured self-concepts grounded in competence, and shifted identities from clinician to patient; (2) loss of narrative control as administrative and service demands shaped decisions and timelines; (3) isolation and perceived illegitimacy, intensified by cohort separation, stigma, and pressure to justify "visible" and "invisible" illness; (4) misalignment between individual needs and structural expectations, including unclear pathways, limited accommodations, and reliance on informal workarounds or external

advocacy; and (5) meaning-making and renewed purpose, alongside lingering disillusionment when systems remained unchanged.

Conclusion: Illness-based leaves are narrated as disruptions to identity, agency, and belonging, shaped by structural rigidity and expectations of uninterrupted productivity in training. Programs should create transparent, compassionate leave and accommodation processes, normalize vulnerability within professional identity formation, and integrate trainees' voices into policy.

Funding Source(s): Not applicable

Presenters Name: Myriam Harper

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Ovarian Cancer on Tiktok: Analyzing Misinformation, Awareness, and Patient Perceptions

Supervisor: Dr Anjali Kulkarni

Authors: Myriam Harper, Tara Behtashi, Anjali Kulkarni

Abstract: BACKGROUND: In 2025, approximately 3,100 women in Canada were diagnosed with ovarian cancer, with an estimated 2,000 deaths. Because symptoms are often subtle and no effective screening test exists, many individuals seek health information online. TikTok, a short-form video platform organized by searchable hashtags (e.g., #OvarianCancer), is increasingly used for medical information; however, educational content and misinformation coexist. OBJECTIVE: To analyze the most-viewed TikTok videos under #OvarianCancer, evaluating creator type, engagement, thematic content, and alignment with clinical guidelines. METHODS: A cross-sectional content analysis was conducted on the 250 most-viewed videos tagged #OvarianCancer between November 15 and December 3, 2025. Eligible videos were categorized by creator type (patient, healthcare provider, health influencer), tone, engagement metrics, and thematic content. Educational content was evaluated using a modified DISCERN tool and compared with SOGC guidelines. RESULTS: Sixty-eight videos met inclusion criteria. Median engagement per video was 1,228 views, 664 likes, and 89 comments. Most videos were neutral in tone (81.2%), while 10.1% contained misleading information and 7.2% were alarming. Educational content appeared in 66.7% of videos; however, only 13.0% aligned with clinical guidelines. Patient-generated videos comprised the majority (n=48), followed by health influencers (n=9) and healthcare providers (n=8). Although provider-generated content more frequently aligned with guidelines, it represented a small proportion of highly viewed videos and demonstrated comparatively lower engagement. CONCLUSION: Popular ovarian cancer content on TikTok reaches a substantial audience but often lacks guideline-concordant information. Healthcare providers are underrepresented among highly viewed videos, and accuracy alone does not appear to drive engagement, highlighting the need for evidence-based strategies that also optimize reach and visibility.

Funding Source(s): Not applicable

Presenters Name: Ellen He

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Risk Factors for Bladder Injury During Caesarean Delivery

Supervisor: Dr. Yvonne Leong

Authors: Doris Liu, Yvonne Leong

Abstract: The rate of Caesarean deliveries has only increased over the years and is a widely accepted method of delivery. In Canada, the average rate of delivery by Caesarean section approaches 30% of all deliveries. Yet, like all surgeries, Caesarean deliveries come with their own set of risks. One such rare but serious risk is that of bladder injury at the time of surgery. This case-control study aims to identify bladder injuries that occurred during Caesarean deliveries over a ten-year period at a single tertiary referral center through a retrospective chart review, and examine risk factors associated with this including maternal, fetal, and operative factors. Between January 1, 2013 and December 31, 2022, out of 13,809 Cesarean deliveries, there were thirty bladder injuries identified. The incidence is 0.22%. Three controls were then randomly selected for each case, while matching for the number of previous Caesarean sections and planned versus emergency delivery. These represent two of the biggest independent risk factors for bladder injury. The goal is to identify other pertinent risk factors, with emphasis on intraoperative techniques from prior documented Caesarean deliveries where available. By identifying these risk factors associated with bladder injury during surgery, including specific intraoperative factors, we can open the way to reducing morbidity for women undergoing Caesarean delivery.

Funding Source(s): AEF

Presenters Name: Meryl Hodge

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Development of Gynecologic Malignancy Following Endometrial Ablation

Supervisor: Dr. Angelos Vilos

Authors: Meryl Hodge, George Vilos, Andrew McClure, Jacob McGee, Angelos Vilos

Abstract: Objectives:

1. To determine the risk of gynecologic malignancy (endometrial and ovarian) following endometrial ablation, as compared to that of patients undergoing other surgical procedures.

2. To identify patterns of presentation associated with the development of gynecologic malignancy following endometrial ablation.

Methods: This study utilized linked health care databases through the Institute of Clinical Evaluative Sciences in Ontario Canada between 2003-2023. We conducted a matched cohort study of patients who had undergone endometrial ablation. The primary outcome was endometrial or ovarian cancer. The secondary outcomes included mortality, repeat endometrial ablation, tubal ligation, bilateral salpingectomy, hysterectomy, or oophorectomy, and loss to follow-up. For each cancer type, we will report method of diagnosis to assess for patterns of presentation. Exclusion criteria included history of endometrial or ovarian cancer, previous endometrial ablation, previous tubal ligation, bilateral salpingectomy, hysterectomy or oophorectomy and endometrial hyperplasia. Baseline characteristics included: age, income quintile, rurality, Charleston, ASA3+, obesity, diabetes, COPD, CHF, breast CA, non-breast CA, health care utilization, previous abdominal-pelvic surgery, hospital admission, fiscal year of index procedure, hospital LHIN, hospital teaching status, surgeon years of experience, indication for the ablation and use of contraceptives. Matching will be 3:1 laparoscopic cholecystectomy, age, fiscal year of the index procedure, history of breast CA, and the logit of the propensity score (based upon the baseline variables above). Unadjusted logistic regression to compare outcomes between those who underwent endometrial ablation vs cholecystectomy will be reported. Odds ratios with 95% confidence intervals will be calculated. Cox proportional hazard model adjusted for matched pairs will be reported.

Funding Source(s): Not applicable

Presenters Name: Taylor Roebotham

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: The Association Between Smoking and Joint Pain in Women Attending a Specialized Menopause Clinic

Supervisor: Dr. Taylor Roebotham

Authors: Farhad Ghasemi, Wendy Wolfman, Taylor Roebotham

Abstract: Joint pain is a common symptom of menopause, yet its underlying mechanisms remain poorly understood. Smoking has anti-estrogenic effects and has been linked to pain syndromes. This study evaluated whether smoking is independently associated with joint pain in menopausal women. We conducted a cross-sectional analysis of survey data from 371 menopausal women attending a Canadian menopause clinic between 2017-2019. Participants self-reported symptom severity, medical history, and lifestyle factors. Moderate to severe joint pain was defined as a symptom score ≥2 on a 5-point scale. Logistic regression was used to assess the association between smoking and joint pain, adjusting for age, estrogen use, alcohol consumption, obesity, and depression. Moderate to severe joint pain was reported by 52% of participants. Smoking was significantly associated with joint pain in both univariate (OR 2.32, 95% CI 1.15-5.03) and multivariate analyses (OR 2.18, 95% CI 1.05-4.82). Joint pain was also associated with hot flashes, mood symptoms, and fatigue. Age, estrogen use, obesity, depression, alcohol use, and sexual activity were not significantly associated. Smoking is independently associated with joint pain. While the underlying mechanisms remain unclear, this association supports the hypothesis that estrogen-related pathways play a role in menopausal joint symptoms and highlights smoking as a potential modifiable risk factor.

Funding Source(s): This study was supported by an unrestricted grant from Pfizer Inc (grant: 64891849).

Presenters Name: Jack Webb

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Divergent Role of ULK1 To Balance Mitochondrial Homeostasis and Bioenergetics in Ovarian Cancer Spheroids

Supervisor: Dr. Trevor Shepherd

Authors: Jack Webb, Matthew J. Borrelli, Adrian Buensuceso, Yudith Ramos Valdés, Trevor Shepherd

Abstract: Epithelial ovarian cancer (EOC) is the deadliest gynaecologic cancer largely due to late-stage diagnosis and ineffective treatment strategies. We have previously identified that ULK1, a serine/threonine kinase best known for its role in initiating macroautophagy, contributes significantly to EOC disease progression. Thus, we speculated that ULK1 may have additional non-canonical functions in EOC pathogenesis beyond macroautophagy. Indeed, label-free proteomic and bioinformatic analyses revealed significant alterations in pathways and processes related to mitochondria, aligning with recent studies uncovering new ULK1 functions in mitochondrial homeostasis. To investigate this further, we utilized our CRISPR/Cas9-mediated ULK1 knockout models made in EOC cell lines OVCAR8, HEYA8, and ES2. Immunoblotting and fluorescence microscopy identified that ULK1 can promote or protect against mitochondrial degradation, with either process being independent of autophagic machinery. At the proteome level, ULK1 loss broadly reduced OXPHOS complex proteins in EOC spheroids with a consistent drop in the glycolysis enzyme hexokinase 2 (HK2). Seahorse ATP-Rate assays revealed matching bioenergetic rewiring, as OVCAR8 ULK1KO spheroids showed reduced OCR and ATP production, while HEYA8 and ES2 spheroids had increased mitochondrial ATP production due to ULK1 loss. Finally, combination matrices showed potential synergy between the ULK1 inhibitor DCC-3116 and sub-cytotoxic concentrations of metformin, nominating dual ULK1-OXPHOS targeting as a rational strategy in EOC. Together these data position ULK1 as a context-dependent gatekeeper that can act to protect or promote mitochondrial degradation independent of canonical mitophagy mechanisms while reshaping mitochondrial metabolism, highlighting new therapeutic vulnerabilities in advanced EOC.

Funding Source(s): This work was supported by the Verspeeten Family Cancer Centre Catalyst Research Grants

Program with funds provided by the London Run for Ovarian Cancer.

Presenters Name: Faisel Alorf

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Blastocyst Re-Expansion is Associated with Early Pregnancy Outcomes Independent of Morphology

Supervisor: Dr. Krista Cameron

Authors: Mandakini Jain, Faisel Alorf, Krista Cameron

Abstract: Post-warming blastocyst re-expansion has been identified as a marker of embryo viability following vitrification, with prior studies demonstrating correlations between re-expansion and implantation potential. However, whether a simple binary classification of re-expansion status provides independent prognostic value beyond conventional morphology grading in routine clinical practice remains incompletely characterized. We conducted a retrospective cohort study of 448 vitrified-warmed blastocyst transfer cycles at a single academic fertility center (2023–2025) to evaluate whether post-warming re-expansion status offers clinically meaningful prognostic information independent of inner cell mass and trophectoderm grading. Blastocysts were classified as re-expanding (n=280) or collapsed (n=168) following warming, and multivariable logistic regression evaluated the independent association of re-expansion status with pregnancy outcomes after adjustment for patient age, oocyte age, and embryo morphology. Mean patient age was 35.2 ± 4.5 years and mean oocyte age was 32.9 ± 4.3 years. Re-expanding blastocysts demonstrated significantly higher positive beta-hCG rates (53.2% vs. 25.0%) and clinical pregnancy rates (43.2% vs. 20.2%) compared with collapsed embryos. Among cycles achieving positive beta-hCG, re-expanding blastocysts exhibited higher initial beta-hCG levels (869 vs. 571 mIU/mL; p = .029), suggesting more robust early implantation. After multivariable adjustment, re-expansion status remained independently associated with positive beta-hCG (OR 3.00; 95% CI 1.91–4.71; p .001) and clinical pregnancy (OR 2.69; 95% CI 1.67–4.36; p .001). These findings demonstrate that a pragmatic binary assessment of post-warming blastocyst re-expansion independently predicts early pregnancy outcomes beyond conventional morphology, supporting its integration into individualized patient counseling.

Funding Source(s): Not applicable

Presenters Name: Amanda Forsyth-Greig

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Identification of Non-Invasive Protein Biomarkers of Embryo Competence Using the Olink Proximity Extension Assay Platform

Supervisor: Dr. Basim Abu-Rafea

Authors: Amanda Forsyth-Greig, Zuleika Leung, Carlee Bates, Dean Betts, Basim Abu-Rafea

Abstract: Infertility places a considerable physical, social, and economic burden on society. The current practice for selecting embryos during an IVF cycle relies on subjective morphological grading, which only offers a live birth rate of 30-35%. The implementation of preimplantation genetic testing has improved embryo selection, yielding a live birth rate of 60% per single euploid transfer. Yet it is costly, there is risk of harm from the required embryo biopsy, and misinterpretation of genetic mosaicism may result in discarding of embryos with the potential to result in healthy pregnancies. Therefore, a significant need exists for non-invasive screening techniques to accurately evaluate the developmental potential of embryos. Our prospective pilot project proposes a novel, non-invasive method of identifying protein biomarkers in the culture media surrounding embryos. Proteins secreted from developing embryos are a crucial source of key biophysical and molecular information. To date, development of these proteins as biomarkers has been limited by the low volume of media in embryo culture. However, we propose using Olink proximity extension assay (PEA) technology, which combines PEAs with next-generation sequencing to detect over 5,400 proteins in low-volume samples. Spent culture media will be collected from the embryos of subfertile patients undergoing IVF. We aim to define distinct protein patterns indicative of embryo health and implantation potential by correlating them with success of implantation and on-going pregnancy. These findings will improve IVF by providing an objective, non-invasive approach to embryo selection, improving success rates and reducing the physical, emotional, and financial burden on families.

Funding Source(s): Children's Health Research Institute (CHRI)

Presenters Name: Radiah Iskandarani

Category: Fellow

Presentation Type: Oral Presentation

Title: Reproductive, Pregnancy, and Neonatal Outcomes After Exposure to GLP-1 Receptor Agonists: A Narrative Review

Supervisor: Dr. Facundo Garcia-Bournissen

Authors: Radiah Iskandarani, Facundo Garcia-Bournissen, Janine Hutson

Abstract: Background:Glucagon-like peptide-1 receptor agonists (GLP-1RAs), including semaglutide, liraglutide, tirzepatide, dulaglutide, and exenatide, are increasingly prescribed for type 2 diabetes and obesity in individuals of reproductive age. Their expanding use has raised important questions regarding potential effects on fertility, pregnancy, lactation, and fetal and neonatal outcomes, particularly in the setting of unplanned peri-conceptional exposures. While animal studies suggest potential reproductive toxicity at supratherapeutic doses, human evidence remains limited and inconclusive.

Methods: A narrative review was conducted to summarize evidence on the reproductive and perinatal effects of GLP-1 receptor agonists. PubMed, Embase, the Cochrane Library, and ClinicalTrials.gov were searched through May 2025 for studies addressing fertility, periconception exposure, pregnancy, neonatal outcomes, and lactation. Human studies and relevant preclinical data were reviewed and synthesized descriptively, with emphasis on clinical relevance and limitations of the available evidence.

Results: Available evidence includes observational studies, registry data, case reports, and relevant preclinical investigations of GLP-1 receptor agonist exposure before and during pregnancy. Current human data do not demonstrate a consistent increase in major congenital anomalies or miscarriage with early pregnancy exposure, although evidence remains limited and observational. Some studies suggest improved fertility and ovulatory function, particularly in individuals with polycystic ovary syndrome.

Conclusions: Current evidence does not indicate a clear increase in major congenital anomalies with early pregnancy exposure to GLP-1 receptor agonists, although data on continued use during pregnancy and lactation remain limited. Clinicians should emphasize pre-conception counseling, contraception, and planned discontinuation prior to pregnancy, with individualized management of inadvertent exposures. Larger prospective studies are needed to better define reproductive safety and inform clinical guidance.

Funding Source(s): Not applicable

Presenters Name: Megan Lave

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Loss Of Osteopontin Improves Uterine Vascular Function In Hypertensive Pregnancy

Supervisor: Dr. Stephen Renaud

Authors: Lave M, Jones J, Li S, Eastabrook GE, McBride MW, Graham D, Lacefield JC, Renaud SJ.

Abstract: Inadequate maternal cardiovascular adaptation to pregnancy contributes to adverse maternal and fetal outcomes. Uterine arteries (UA) must remodel from small vessels into high-flow, low-resistance conduits to perfuse the placenta and support fetal growth. Those experiencing hypertensive disorders of pregnancy (HDP) are at risk of impaired UA remodelling. Osteopontin (OPN) is a protein that contributes to vascular pathology in hypertension; however, its role in UA remodelling during HDP is unknown. Spontaneously hypertensive stroke-prone rats (SHRSP), a model for chronic hypertension during pregnancy, were compared to OPN-deficient SHRSP. Wistar-Kyoto (WKY) rats served as normotensive controls. Doppler ultrasound was performed at mid-gestation (gestational day [GD]15.5) to assess UA blood flow. UA were collected for molecular and histological analyses (n=6/strain). Fetal weight and length were measured at GD15.5 and late gestation (GD18.5). Compared to WKY, SHRSP exhibited inward hypertrophic remodelling of GD15.5 UA. This was demonstrated by decreased lumen area and increased resistance index and systolic/diastolic ratio ($P<0.05$), an opposite remodelling pattern to healthy UA transformation. Increased OPN transcript was evident in SHRSP UA relative to WKY ($P<0.05$). SHRSP fetuses showed reduced growth from GD15.5 to 18.5 and were smaller in weight and length at GD18.5 compared to WKY ($P<0.05$). OPN-deficient SHRSP had larger GD15.5 lumen areas ($P<0.05$), and decreased resistance index and systolic/diastolic ratio ($P<0.05$) compared to SHRSP. OPN-deficient SHRSP fetuses showed improved growth trajectories compared to SHRSP ($P<0.05$). These findings reveal a novel role for OPN in UA remodelling during chronic hypertension, implicating it in vascular dysfunction and HDP-related obstetric complications.

Funding Source(s): Children's Health Research Institute

Presenters Name: Amy Pietrantonio

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: The Functional and Structural Consequences of Early, Acute Prenatal Alcohol Exposure on the Peripheral Auditory System

Supervisor: Dr. Katherine Willmore and Dr. Brian Allman

Authors: Amy Pietrantonio, Brian Allman, Katherine Willmore

Abstract:

Fifty-seven percent of children with fetal alcohol spectrum disorder (FASD) have hearing loss. While chronic prenatal alcohol exposure (PAE) is known to disrupt the peripheral auditory system (PAS), the effects of early, acute PAE remain poorly understood, and the mechanisms driving these deficits are unknown. Sonic hedgehog (Shh) is critical for PAS development and is vulnerable to PAE in other systems, making it a strong candidate for PAE-related hearing loss. We aim to determine how early, acute PAE disrupts PAS structure and function, and whether these effects are associated with altered Shh signaling. C57BL/6 dams received 25% ethanol on gestational day 7.5. Offspring underwent auditory brainstem response testing to measure hearing thresholds and sound transmission speed, and startle testing to assess sound reactivity. Middle and inner ear morphology will be examined to identify structural defects. Embryonic cohorts were collected to quantify Shh ligand, receptor, and downstream target transcripts within the developing PAS. Early, acute PAE led to high-frequency hearing loss, slowed auditory transmission, and hyporeactivity. These effects were especially pronounced in females, who exhibited persistent hearing deficits across the lifespan, whereas males were comparatively less affected. Based on these functional deficits, we predict that early, acute PAE will disrupt ossicular and cochlear morphology and reduce Shh signaling in the embryonic PAS. A single, binge during early pregnancy is sufficient to elicit life-long, sex-dependent auditory dysfunction. Ongoing analyses will link functional deficits with structural and molecular alterations, advancing our understanding of PAS vulnerability to PAE and informing early intervention strategies.

Funding Source(s): Children's Health Research Institute (CHRI)

Presenters Name: Samuel Ugulini

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Prenatal Phytocannabinoid Exposure Reprograms Pancreatic Alpha and Beta Cell Function in Adult Offspring

Supervisor: Dr. Savita Dhanvantari

Authors: Samuel Ugulini, Daniel B. Hardy

Abstract: Background: There is emerging evidence that prenatal cannabis exposure predisposes offspring to type 2 diabetes (T2D) later in life. Recent work from our group has shown that gestational exposure to Δ^9-tetrahydrocannabinol (Δ^9-THC) may alter glucose tolerance, insulin sensitivity and glucagon trafficking and secretion in adult rat offspring in a sex-specific manner. Therefore, we propose that prenatal cannabis exposure negatively affects pancreatic islet development and function, leading to long-term and sex-specific metabolic consequences in adult offspring.

Methods: Pregnant Wistar rats received daily i.p. injections of vehicle or Δ-9 THC (3 mg/kg) from gestational days 6 – 22 and were sacrificed at 21 days (juvenile) and 5-months of age (adult). Pancreatic tissue was assessed for glucagon, insulin and Lamp2 expression via immuno-fluorescent confocal microscopy. Subcellular localization of fluorescent reporters was analyzed using plot profile analysis.

Results: In juvenile female offspring, Δ^9-THC-exposure resulted in significant increases in α-cell glucagon content and decreases in Lamp2 lysosomal trafficking in ß-cells (n=3, p<0.05). Strikingly, Lamp2 expression was significantly altered between juvenile, and adult female offspring, where Δ^9-THC-exposure caused a complete loss of Lamp2 lysosomal trafficking in both α- and ß-cells (n=3, p<0.05). No changes were observed in the male cohort.

Conclusion: Prenatal Δ^9-THC exposure disrupts the normal endocrine function of the pancreas, altering glucagon, insulin, and lysosomal trafficking in an age- and sex-specific manner. These consequences, which seem to manifest later-in-life alongside metabolic dysfunction, predispose the affected offspring to the development of T2D.

Funding Source(s): Not applicable

Presenters Name: Faisal Idris

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Development and Validation of the Arabic Version of the Bladder Control Self-Assessment Questionnaire (B-SAQ)

Supervisor: Dr. Yvonne Leong

Authors: Faisal Idris, Roaa Alshabanah, Medel Sebastian, Abdulrahman Alfadhel, Yvonne Leong

Abstract: Introduction: The Bladder Control Self-Assessment Questionnaire (B-SAQ) is a simple, self-administered screening tool designed to assess the presence and impact of lower urinary tract symptoms (LUTS). It aims to enhance patient awareness of bladder symptoms and promote timely help-seeking. Although Arabic is spoken by more than 400 million people worldwide, validated urological questionnaires in Arabic remain limited.

Objective: To translate, culturally adapt, and validate the Arabic version of the B-SAQ.

Methods: A cross-sectional validation study was conducted at King Abdulaziz Medical City, Riyadh, Saudi Arabia. Translation and cultural adaptation followed established international guidelines, including forward and backward translation, expert committee review, and evaluation of content and face validity. Psychometric testing was performed in 63 Arabic-speaking female participants.

Results: All 63 participants completed the Arabic B-SAQ (100% response rate), demonstrating excellent acceptability. Content validity was strong (S-CVI/Ave = 0.92), and face validity was confirmed, with all items rated as clear and a mean completion time of 3.2 minutes. Exploratory factor analysis supported the original two-factor structure (symptom severity and discomfort), explaining 68.4% of the variance. Internal consistency was good, with Cronbach's alpha ranging from 0.83 to 0.86.

Conclusion: The Arabic B-SAQ demonstrates strong validity and reliability, supporting its use as a culturally adapted tool for assessing LUTS in Arabic-speaking women.

Funding Source(s): Self funding

Presenters Name: Sara Jones

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Financial Toxicity Among Patients with Gynecologic Malignancy in Southwestern Ontario

Supervisor: Dr. Ji-Hyun Jang

Authors: Sara Jones, Yasaman Javadzadeh,Ji-Hyun Jang

Abstract: Despite the Canadian healthcare system's predominantly publicly-funded design, patients still incur indirect costs. Financial toxicity refers to the strain of these costs, particularly in patients with cancer. We conducted a cross-sectional mixed-methods study of financial toxicity among gynecologic oncology patients in Southwestern Ontario. Data was collected through chart review and participant surveys including the COmprehensive Score for Financial Toxicity tool. Descriptive statistics were conducted. A subset of 20 participants completed semi-structured interviews, and qualitative thematic analyses completed.

Our study included 98 participants with varied stages at diagnosis (31.6% stage 1, 13.3% stage 2, 35.7% stage 3, 8.2% stage 4, and 11.2% other/unknown). Average age at recruitment was 61.8 years. The mean time since diagnosis was 18.4 months and the median income was $35,000. Most participants did not have government coverage above OHIP (78.6%), or private insurance (50%). 64.2% of respondents reported their out-of-pocket medical expenses were more than anticipated. Only 30.5% felt their illness was not a financial burden to themselves or their families. Interviews revealed appreciation for age-related pensions and disability insurance, and a significant proportion of respondents were retired. Many relied upon family supports for transportation and noted the opportunity costs related to travel.

This research highlights patients' lived experiences in a previously understudied area. To our knowledge, this is the first study to investigate financial toxicity in Canadian patients with gynecologic malignancies. Future strategies to support these patients and mitigate financial toxicity should be guided by these accounts.

Funding Source(s): This study is funded by Academic Enrichment Fund provided by the Department of Obstetrics and Gynecology to Dr. Ji-Hyun Jang

Presenters Name: Stephen Magliocchetti

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: The Autonomic Distribution of Pubocervical Fascia Can Predict Iatrogenic Neuropathy During Level-II Cystocele & Paravaginal Defect Repairs

Supervisor: Dr. Queena Chou and Dr. Tyler Beveridge

Authors: Stephen Magliocchetti, Ben Laxer, Jeffrey Chen, Queena Chou, Tyler Beveridge

Abstract: Although it has been established that autonomic nerves travel within pubocervical fascia, there is a paucity of literature examining the morphometric distribution of the plexus. Therefore, it remains unknown whether types of level-II prolapse repair risk iatrogenic neuropathies that may induce sexual dysfunction. Thus, we aimed to describe the anatomical characteristics, average position, and morphometric distribution of pubocervical fascia and its autonomic plexus. Cadaveric dissection of 15 female hemipelvises was performed to isolate pubocervical fascia and its autonomic plexus. A two-step morphometric workflow leveraged a generalized Procrustes analysis and thin-plate spline warping to reveal the average distribution of autonomic nerves in pubocervical fascia. Pubocervical fascia supports the vaginal canal through five distinct attachment points: the urethra, the distal arcus tendinous fascia pelvis, the ischial spine, the junction between the lateral efferences of the inferior hypogastric plexus and ischial spine, and cervicovaginal junction. A fascial support structure between the lateral-most portion of the efferences of the inferior hypogastric plexus and ischial spine provides posterior tension for pubocervical fascia. The morphometric results reveal that the autonomic paravaginal bundle travelling through pubocervical fascia enters the tissue between the fascial support structure and cervicovaginal junction. Thus, the distribution of autonomic nerves is concentrated towards the medial half of the tissue, revealing that the posterolateral and anterior portions of pubocervical fascia are relatively aneural, and likely safer to repair. A more comprehensive understanding of this structure can provide a robust platform for clinicians to make informed decisions regarding nerve-injury risk during level-II cystocele repairs.

Funding Source(s): Natural Sciences and Engineering Research Council of Canada (NSERC). Application Title: Functional Neuro-organization of the Peripheral Abdominopelvic Autonomic Plexuses in Humans; An Immunohistochemical and Radiologic Approach: RGPIN-2022-03896.

Presenters Name: Sarah McArthur

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: NUAK1 Controls Fibronectin Expression in a Spheroid Model of Epithelial Ovarian Cancer Metastasis.

Supervisor: Dr. Trevor Shepherd

Authors: Sarah McArthur, Yudith Ramos Valdés, Trevor G. Shepherd

Abstract: Epithelial ovarian cancer (EOC) is a heterogeneous and lethal gynecologic cancer, usually diagnosed after widespread metastasis. EOC metastasis is unique among most human cancers since it spreads directly into the peritoneal cavity often as multicellular aggregates called spheroids. We have demonstrated that bioenergetic stress upon cell detachment activates Liver kinase B1 (LKB1) and its downstream substrate NUAK1 to promote spheroid integrity and this pathway is required for cell adhesion upon spheroid reattachment. In fact, these key metastatic processes are impacted by fibronectin production controlled by LKB1-NUAK1 pathway expression. Indeed, preliminary bioinformatic Enrichr pathway analysis of transcriptomic data from LKB1 and NUAK1 knockout spheroids revealed overlapping extracellular matrix organization pathways to be most affected. Together these findings are based upon solid genetic analyses; herein, we seek to further investigate LKB1 and NUAK1 activity to directly regulate fibronectin in EOC spheroids through pharmacologic inhibition. We have several distinct small molecule inhibitors with activity directed against both LKB1 and NUAK1. LKB1 and NUAK1 inhibitor treatment of EOC spheroids potently reduced fibronectin expression at both the transcript and protein levels. Treatment of EOC spheroids with LKB1 and NUAK1 inhibitors resulted in loose and disaggregated spheroids and reduced capacity to disperse upon reattachment. The morphology of dispersing cells was altered due to NUAK1 inhibition leading to reduced cell density indicating a negative effect on cell motility, which was confirmed by scratch wound assay. These new findings substantiate LKB1-NUAK1 as a crucial mediator during advanced EOC disease progression due to its direct role in ECM organization of spheroids. Additionally, they provide exciting evidence for the future translational potential of LKB1-NUAK1 inhibitors as novel therapeutics for advanced EOC.

Funding Source(s): Not applicable

Presenters Name: Tracy Pham

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Through Thick and Thin: Findings from a Large Retrospective Study on the Impact of Endometrial Thickness on the Success of IUI

Supervisor: Dr. Basim Abu-Rafea

Authors: Tracy Pham, Abdullah Agabawi, Krista Cameron, Michael Miller, Basim Abu-Rafea

Abstract: Intrauterine insemination (IUI) is a common infertility treatment method that involves the insertion of a catheter filled with concentrated sperm into the uterus often accompanied by ovulation induction. It is a highly monitored process involving urine and blood tests, follicular tracking, as well as endometrial thickness (EMT) to predict the optimal timing to trigger ovulation and subsequently insemination. Previous studies on the impact of EMT on success rate for IUI have varied on its importance. Our study aims to discover if there exists a specific endometrial thickness that corresponds to IUI success i.e. clinical pregnancy rate (CPR). We conducted a retrospective cohort study using data from patients undergoing IUI with letrozole as the ovulation induction agent at Omega Fertility Center between January 1, 2015 – July 31, 2024. Among 600 IUI cycles, 80 resulted in clinical pregnancy. CPR were 5.3% < 5mm, 44.0% between 5 – 7mm, 40.0% between 8 – 10mm, 10.7% >11 mm. Overall, there was no significant effect of endometrial thickness on CPR (area under the ROC, 0.53; 95% confidence interval [CI], 0.460 - 0.604). It is worth noting in analyzing the background characteristics of our patient population that both body mass index and final total motility count were significant factors in predicting CPR. This study helps clarify that endometrial thickness does not play a role in IUI success and will impact clinical practice on modification of future IUI protocols to emphasize more important patient characteristics such as BMI, final TMC etc.

Funding Source(s): Not applicable

Presenters Name: Alice Balluku

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Transfer of Lumacaftor Across the Human Placenta in the Ex Vivo Placental Perfusion Model and Prediction of Safety in Human Pregnancy.

Supervisor: Dr. Janine Hutson and Dr. Facundo Garcia-Bournissen

Authors: Alice Balluku, Eddie Chan, Facundo Garcia-Bournissen, Janine Hutson

Abstract: Pregnancies in patients with cystic fibrosis (CF) are increasing, yet the safety of cystic fibrosis transmembrane conductance regulator modulators (CFTR-Ms) during pregnancy remains unknown, as pregnant individuals were excluded from clinical trials evaluating CFTR-Ms. This study quantifies lumacaftor transfer across term human placentas, using an ex vivo placental perfusion model. Placentas from consenting participants undergoing elective C-sections were perfused with lumacaftor introduced via the maternal circulation at either therapeutic or supratherapeutic concentrations. Eight lobules, ranging from 7.35–32.17 g, from eight placentas were perfused with lumacaftor, four at Cmax (25.0 ug/mL) and four at 10X Cmax (250 ug/mL). hCG secretion confirmed placental viability. Maternal rates of hCG secretion decreased from 232.50 ± 41.61 mIU/G/min during the pre-perfusion stage to 57.69 ± 11.19 mIU/G/min during the perfusion, while fetal levels remained low at 0.025 ± 0.070 mIU/G/min during the pre-perfusion stage and 0.042 ± 0.019 mIU/G/min during the perfusion. Throughout the experimental periods of lumacaftor perfusions, the rate of maternal disappearance of antipyrine, a known reference molecule of passive diffusion across the placenta, was 0.031± 0.002 µmol/g/min and the rate of fetal antipyrine appearance was 0.021± 0.001 µmol/g/min, confirming placental integrity. Perfusate samples were analyzed by LC-MS/MS to determine fetal transfer rates. The transfer of lumacaftor is expressed by two parameters: (1) the fetal-to-maternal concentration ratio at steady state, and (2) the drug clearance from maternal circulation. Findings from this study provide insight into fetal exposure, risks, and therapeutic benefits, contributing to evidence-based guidance on CFTR-M use in pregnancy.

Funding Source(s): Department of Obstetrics and Gynaecology- Western University

Presenters Name: Emily Barlow

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Investigating the Effects Of Early, Acute Ethanol Exposure on Cranial Neural Crest Cell-Mediated Facial Morphogenesis

Supervisor: Dr. Katherine Willmore

Authors: Emily Barlow, Beth Barretto, Andreas Dauter, Benedikt Hallgrimsson, Katherine Willmore

Abstract: Prenatal alcohol exposure (PAE) can lead to fetal alcohol spectrum disorder (FASD), which can commonly be characterized by facial dysmorphologies. Studies have demonstrated that facial features derived from cranial neural crest cells (CNCCs) are particularly vulnerable to PAE. While the effects of PAE on facial development and CNCC processes is well-established, the severity of such dysmorphology is highly variable. This variation poses a major challenge in the study of potential mechanisms targeted by PAE that underlie the resultant facial dysmorphologies. The purpose of this study is to leverage light sheet microscopy to quantify both CNCC processes and face shape in the same individual and to compare these measures between individuals exposed to alcohol in utero and vehicle controls.

We will use an established early acute PAE mouse model. Pregnant, nulliparous dams will receive two IP injections of 25% ethanol (2.9g/kg) at embryonic day (E) 7.5 four hours apart; controls will receive an equivalent dose of lactated ringers. Embryos will be harvested at E10.5, CUBIC-cleared, and immunostained for Sox10, pHH3, cleaved caspase-3 and Hoechst. Embryos will be imaged using light sheet microscopy. CNCC quantification and segmentation will be done using a deep learning model. Surface reconstructions will be made from each scan and 3D geometric morphometrics will be used to analyze face shape. CNCC mechanisms will be correlated with face shape using a two-block partial least squares regression.

We predict that the degree of disruption to CNCC proliferation and apoptosis will correlate with the severity of the facial phenotype following PAE.

Funding Source(s): Not applicable

Presenters Name: Nicholas Hamati

Category: Graduate Student (MSc) / (PhD)/Postdoc

Presentation Type: Oral Presentation

Title: Behavioural Effects of Prenatal THC Exposure are Mitigated by Adolescent N-Acetylcysteine

Supervisor: Dr. Steven Laviolette and Dr. Daniel Hardy

Authors: Nicholas Hamati, Enzo Perez-Valenzuela, Leandro Val Sayson, Marieke Devuono, Matthew John Jones, Amanda Kunst, Madeline Machado, Haseeb Mahmood, Marwa Idrissi, Daniel Hardy, Walter Rushlow, Steven Laviolette

Abstract: Cannabis use during pregnancy is increasing, yet the long-term neurobehavioral consequences of gestational Δ9-tetrahydrocannabinol (THC) exposure and the potential for postnatal intervention remain incompletely understood. During critical windows of brain development, THC is known to increase oxidative stress and neuroinflammation. To address this further, the present study examines whether adolescent supplementation with the antioxidant N-acetylcysteine (NAC) can mitigate the adverse behavioral outcomes induced by prenatal THC exposure. Methods: Pregnant Wistar rats received either edible THC (10mg/kg/day with Nutella™) or vehicle from gestational days 7-21. Offspring were administered NAC in drinking water (0.9 g/L) during adolescence (postnatal days 30-51) and then assessed across behavioral tests measuring anxiety-related behavior, locomotion, cognition, social interaction, and sensorimotor gating from postnatal days 60-90. Results: Male and female THC-exposed offspring exhibited reduced birth weights compared to vehicles (p<0.001 in both sexes). By adulthood, offspring exposed to prenatal THC exposure exhibited persistent, sex-dependent alterations in behavior, including changes in risk assessment, locomotor activity, social recognition (p<0.05 in males), and prepulse inhibition (p<0.05 in both sexes), without evidence of global cognitive impairment. Moreover, adolescent NAC supplementation partially normalized THC-induced behavioral alterations, with stronger effects observed in male offspring. Collectively, these findings indicate that prenatal THC alters long-term neurodevelopmental trajectories in a domain- and sex-specific manner, and that adolescence represents a feasible, clinical window for intervention with antioxidants. Ongoing work will investigate molecular correlates of these effects, focusing on redox balance and neurotransmitter signaling in the mesocorticolimbic system.

Funding Source(s): Not applicable

Presenters Name: Mandakini Jain

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Impact of Long COVID on Fertility Intentions Among Canadian Women: A Cross-Sectional Survey

Supervisor: Dr. Genevieve Eastabrook

Authors: Mandakini Jain, Jennifer Ryder, Genevieve Eastabrook

Abstract: Long COVID is a multisystem condition marked by persistent fatigue, dyspnea, dysautonomia, and neurocognitive complaints persisting three or more months after primary SARS-CoV-2 infection. While pandemic-era studies documented shifts toward postponing childbearing, none have focused on women with Long COVID, quantified fertility delay duration, or examined how symptom clusters shape fertility planning, which is clinically salient given that postponement can lower pregnancy probability as maternal age advances. We conducted a cross-sectional online survey of Canadian women aged 18–45 with self-reported Long COVID to characterize the impact on fertility intentions, including the nature and duration of plan changes and association with symptom clusters and resource needs. Of 110 surveys, 100 were complete (mean age 34.7 ± 5.9 years). Overall, 74% (95% CI 65–82%) reported changing fertility intentions after Long COVID, with 59% (95% CI 48–70%) abandoning fertility plans entirely. Among the 33% who postponed plans, 96% delayed by at least one year and 64% by at least two years. Postural Orthostatic Tachycardia Syndrome (POTS) was strongly associated with longer postponement: 100% of those delaying two or more years reported POTS versus 44% among those delaying less than two years ($p = 0.002$). No other symptom or demographic comparisons reached significance. Participants most requested clinician access and online resources for fertility planning. These findings—the first to report granular fertility intention changes in this population—highlight dysautonomia as a potential driver of extended delay and support fertility counseling addressing symptom control, age-related fecundity, and tailored patient resources.

Funding Source(s): Not applicable

Presenters Name: Charis Ng

Category: Resident/Clinical Fellow

Presentation Type: Oral Presentation

Title: Delivering More Than Babies: Enhancing Care for Pregnant Adolescents Through a Multidisciplinary Prenatal Model

Supervisor: Dr. Carol King and Dr. Taryn Taylor

Authors: Charis Ng, Maegan Miklas, Taryn Taylor, Carol King

Abstract: Adolescent pregnancy has been associated with poorer maternal and infant outcomes. At the same time, the literature has also demonstrated a strong motivation by adolescent mothers for engaging with prenatal resources, thus providing a unique opportunity for partnering with this population. Various centers including the Young Person's Prenatal Clinic in London, Ontario have developed integrative programs with the goal of bridging this gap by integrating a multidisciplinary team model with Obstetricians, Social Workers, and Dietitians. However, the existing body of research related to program outcomes has largely focused on postnatal outcomes including breastfeeding, parental role stress, and rapid repeat pregnancy. There remains a paucity of information regarding how integrative programs meet adolescent parents' needs in the prenatal and immediate postpartum periods. As the first phase of a three-phase qualitative study, we report the initial results of a patient-reported questionnaire collected from 19 patients that looked at resource utilization, experience with allied health professionals, barriers to care, and perceived preparedness for delivery/postpartum. Our study demonstrated that while participants continue to appreciate traditional clinical resources, there is emerging interest in social media-based resources as a source of information and support. Participants also had high rates of involvement with allied health professionals and variable reports of perceived helpfulness. The most popular theme identified as a barrier to care was transportation. The majority of participants reported a high degree of satisfaction with information provision and preparedness for delivery/postpartum. This study confirms the importance of a multidisciplinary care model for antenatal adolescent care.

Funding Source(s): Dept of Ob/Gyn