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Content
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What Does McMaster OB/GYN Bring to Research?

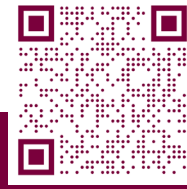
An Overview of Our Research
on Medical Disorders
in Pregnancy and
Patient-Centered Care



Obstetrics &
Gynecology

Our Department

Hamilton, Ontario, Canada



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McMaster University is home to the concept of evidence-based medicine, problem-based learning . We are home to a faculty of prolific researchers allowing us to consistently rank among the highest in all national research metrics. McMaster is ranked **#1 in Canada for graduate student research intensity, #2 for faculty research intensity and #3 in the Medical/doctoral schools Research University of the Year Rankings.**

Field of Study Include:

- Reproductive Biology
- Reproductive Endocrinology & Infertility
- Maternal Fetal Medicine
- Urogynecology
- Gynecologic Oncology
- Obstetric Medicine
- Education
- Quality Improvement
- Endometriosis
- Ultrasound
- Diagnostics

"Our mission is excellence in education, research and evidence-based effective care for women*."

* We recognize that woman/women is not gender inclusive. We respect & treat all individuals equitably regardless of identity.



Obstetrics &
Gynecology

Our People, Projects, and Expertise

Dr. Jon Barrett, Professor and Department Chair

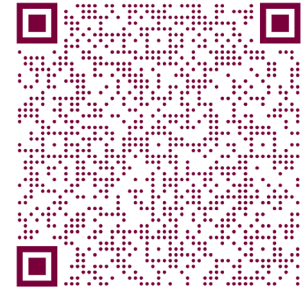


Maternal Fetal Medicine
Specialist

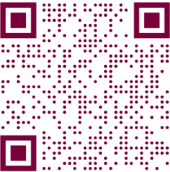
- Principal Investigator of the TWINS Study
- Currently acts as a mentor for all faculty to ensure research success.
- Building Networks for interprovincial collaboration



To Read More About Dr. Barrett's Study, Scan Here



Obstetrics &
Gynecology



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Our People, Projects, and Expertise

The Confidence Project – Dr. Barrett & Dr. D’Souza

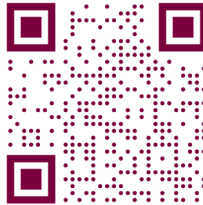
- Supporting Canadian Health Service Users with Decision-Making on COVID-19 Vaccination During Pregnancy and Lactation
- To develop a national patient-centred infographic on Covid vaccine efficacy and safety for pregnant people
- Informed by healthcare providers and under-represented groups in Canada
- Funded by CIHR and NSERC
- In partnership with Health Nexus for community consultation



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What are the barriers and facilitators to Covid vaccine uptake for your pregnant and lactating patients?



Obstetrics &
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Our People, Projects, and Expertise

Dr. Rohan D'Souza, Associate Professor



Maternal Fetal Medicine
Specialist

Current Research:

Principal Investigator of the
CANOSS (Canadian
Obstetric Survey System)
Study



Lead Investigator of the
OROS (Outcome Reporting in
Obstetric Studies) Project

Clinical and Research Focus:

Medical Disorders During
Pregnancy

Incorporation of Patient
Preferences into Obstetric
Decision-Making



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The O R O S Project
Outcome Reporting in Obstetric Studies

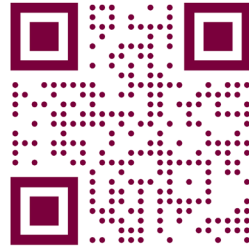


Obstetrics &
Gynecology

Our People, Projects, and Expertise

The Canadian Obstetrics Survey System– Dr. Rohan D’Souza

CanOSS is a group of Canadian investigators representing various disciplines caring for pregnant and postpartum individuals working towards the development and establishment of a Canada-wide survey system for pregnancy-related morbidity.



<https://canoss.ca>

CURRENTLY RECRUITING:

Maternity unit leads from all provinces and territories for a feasibility study



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Funded by:  Canadian Institutes of Health Research
Instituts de recherche en santé du Canada




Obstetrics & Gynecology

Our People, Projects, and Expertise

The OROS Project Outcome Reporting in Obstetrics Studies – Dr. Rohan D’Souza

We are a consortium of healthcare professionals, researchers, and patients creating Core Outcome Sets (COS): standardized and validated minimum sets of outcomes to be reported and measured in obstetric studies.

1. Systematic Reviews
2. Interviews and Focus Groups
3. Electronic Delphi Survey
4. Consensus Meetings
5. Processes for Measuring Outcomes



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RECRUITING SURVEY PARTICIPANTS:

- ***OPEN NOW!* COSCO: Core Outcome Set for studies on Critically ill Obstetric patients**
- **COSSOPP: Core Outcome Set for studies on Obesity in Pregnant Patients**
- **COSCarP: Core Outcome Set for studies on Cardiac disease in Pregnancy**
- **COSPVenTE: Core Outcome Set for studies on Perinatal Venous ThromboEmbolism**



www.oros-project.com



Obstetrics &
Gynecology

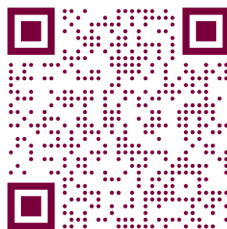
Our People, Projects, and Expertise

Dr. Alison Holloway, Associate Chair of Research, BSc. PhD.

Co-Principal Investigator for:

Land-Based Community Monitoring of Selenium in the Canadian Rockies: Stoney Nakoda Women's Health and Well-Being

Assessing the effects of exposure to contaminants originating from existing coal mining activity in Bighorn Country on reproductive health outcomes, and to create a baseline for areas that are being considered for coal mining in the future.



Learn More
About Dr.
Holloway Here



Reproductive Biology
Specialist



Obstetrics &
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Our People, Projects, and Expertise

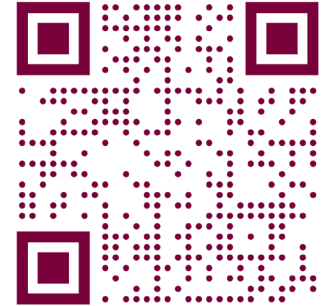
Dr. Deborah Sloboda, Professor



Fetal Physiology Specialist

- Fetal physiologist and expert in the developmental origins of health and disease
- Experimental work focuses on mechanisms governing paternal/maternal-fetal-placental connections and how adversity before and during pregnancy influences offspring health and disease risk
- Community-based research focuses on understanding barriers and enablers to health in pregnant individuals and knowledge translation of the importance of a healthy start to life to the public

Website
www.slobodalab.com



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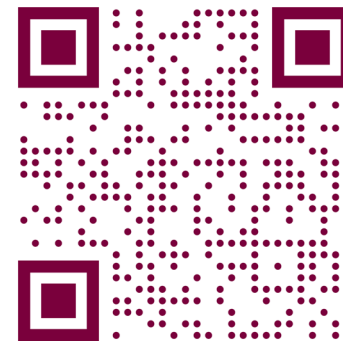
Our People, Projects, and Expertise

The Art of Creation – Dr. Deborah Slaboda



The Art of Creation

An arts-based knowledge translation and intervention study that uses art and cultural institutions to promote and advocate for a healthy start to life



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Our People, Projects, and Expertise

Dr. Sarah McDonald, Professor

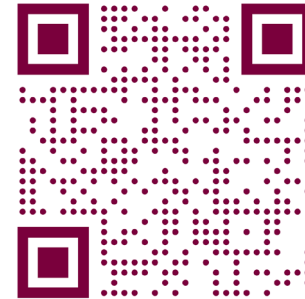


Maternal Fetal Medicine
Specialist

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- Tier II Canada Research Chair in Maternal and Child Disease Prevention and Intervention, Canadian Institutes of Health Research
- Research focuses on prevention of preterm birth, and its sequelae, and to improve the health of infants, women and families


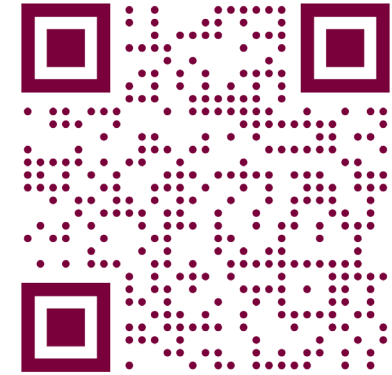
Visit Dr.
McDonalds
Website to
Learn More!



Our People, Projects, and Expertise

Single Dose of Antenatal Corticosteroids – Dr. Sarah McDonald


SNACS is a high-quality research study which will address whether one dose of steroids will give similar effects as the standard double doses of steroids for pregnant people at risk of preterm birth with a singleton or with twins between 22 and 34 weeks and 6 days of pregnancy.




SNACS Study

Single Dose of Antenatal Corticosteroids

Randomized Controlled Trial for Pregnancies at Risk of Preterm Delivery



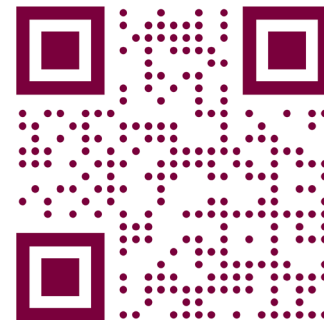
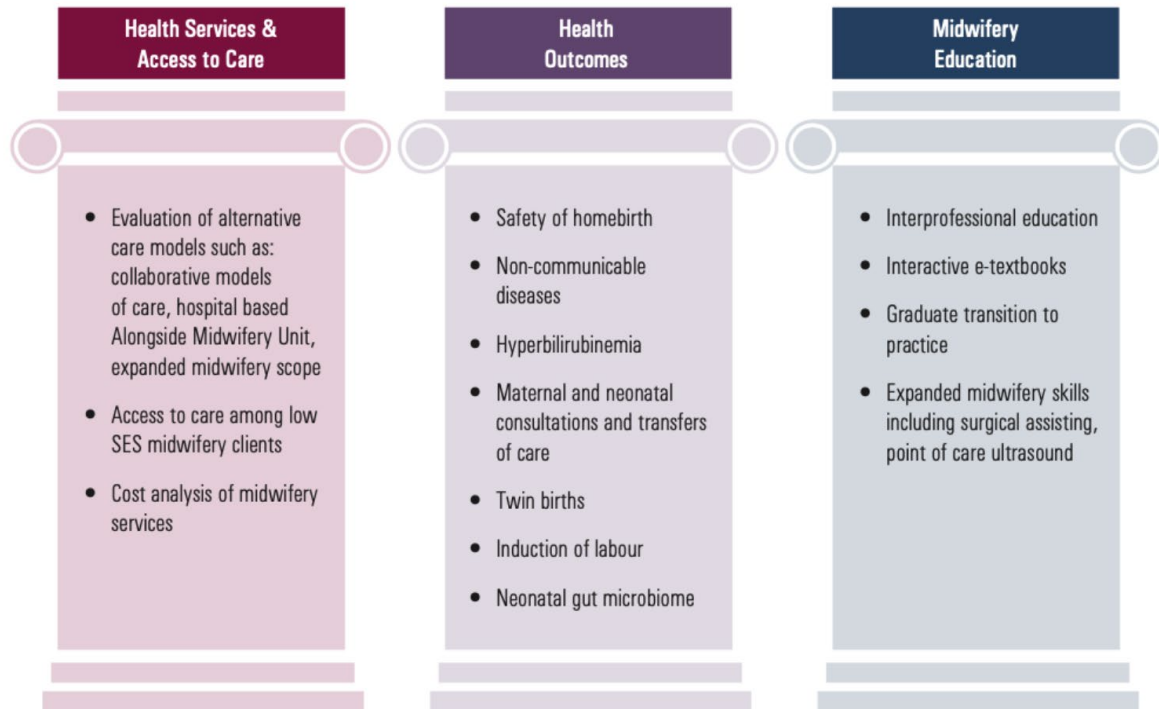
To keep babies and children safe



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Our People, Projects, and Expertise

McMaster Midwifery Research Centre (MMRC)



Established in 2018, the MMRC is Canada's only midwifery research centre.



Obstetrics &
Gynecology

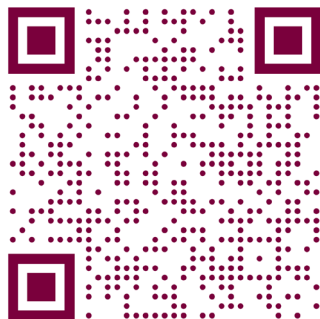
Our People, Projects, and Expertise

Dr. Beth Murray-Davis, Associate Professor



Scientific Director, McMaster
Midwifery Research Centre

Principal Investigator for:
**Developing Gender Inclusive
Language for Reproductive Care
& Research**



Learn More About
Dr. Murray-Davis
HERE!



Find All Our
Exhibit Content
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Developing Gender Inclusive Language for Reproductive Care & Research

What Are We Doing?

Creating evidence-informed and patient-informed Canadian consensus statement regarding gender-inclusive language in reproductive healthcare, education & research.



Who Are We Looking For?

1. Obstetrical and sexual Health practitioners/policymakers; transgender, gender non-binary (TGNB) advocates, policymakers, & researchers;
2. Transgender, non-binary and Two Spirit individuals who have experienced perinatal or sexual health care; transgender and cisgender individuals who have experienced misogyny or gender exclusion in healthcare



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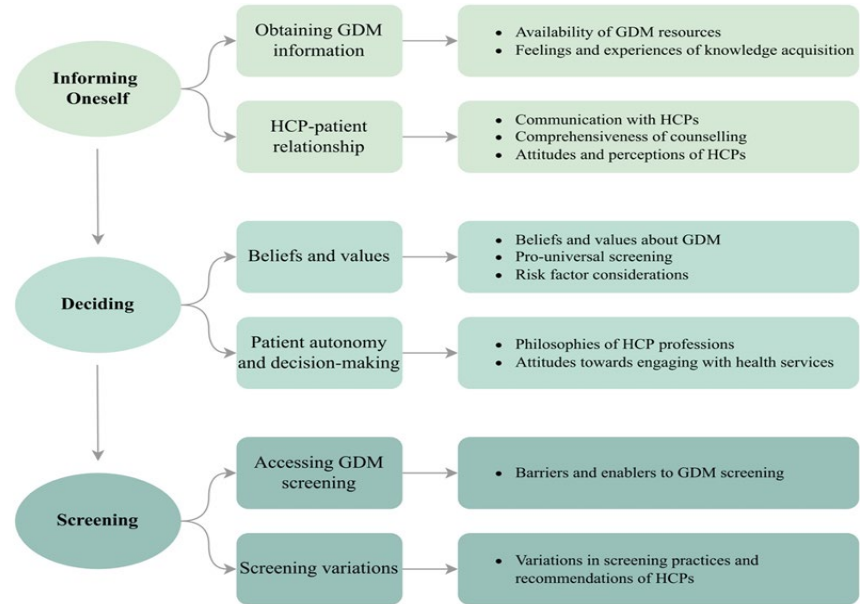
Want to get involved? Reach out to obgynres@mcmaster.ca and we will connect you with the team!



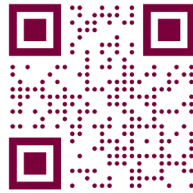
Our People, Projects, and Expertise

Differences in GDM Screening and Counselling by Healthcare Provider

- Interviews with pregnant people and healthcare providers revealed foundational concepts in GDM screening and counselling
- Differences in approaches to counselling between care provider groups - Obstetricians, Midwives and Family Physicians - affected by communication, level of healthcare autonomy, and patient motivation to engage with health services



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Our People, Projects, and Expertise

Dr. Liz Darling, Associate Professor

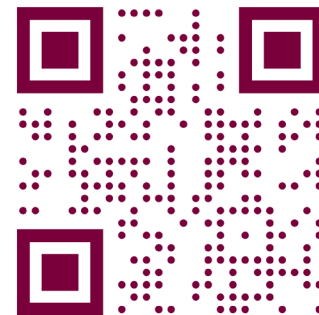


Director/Assistant Dean of the
Midwifery Education Program

Current Research Projects:

Expanding midwifery services in Canada:
Improving equitable access to sexual and
reproductive healthcare through midwifery
contributions

How do perceptions of Covid-19 risk
influence health decisions in pregnancy? A
mixed-methods study



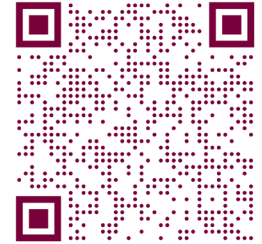
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Our People, Projects, and Expertise

Dr. Eileen Hutton, Professor Emeritus



- Professor Emeritus, midwife, with Doctorate from University of Toronto in Epidemiology
- Former Director, McMaster Midwifery Education Program, and Founder, McMaster Midwifery Research Centre
- Active in epidemiological and cross-disciplinary projects on origins of disease and health systems research in midwifery



More about Dr. Hutton here!



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Obstetrics & Gynecology

Our People, Projects, and Expertise

Baby & Microbiota of the Intestine Project (Baby & Mi, Baby & Pre-Mi)

Early life exposures may impact development of the infant gut, i.e. mode of delivery, place of birth, antibiotics, Caesarean section, breastfeeding, diet, and probiotics



Compares gut microbiota in full term infants in low-risk pregnancies compared with infants exposed to intrapartum antibiotics for GBS prophylaxis

Guitor, A.K., Yousuf, E.I., Raphenya, A.R. et al. Capturing the antibiotic resistome of preterm infants reveals new benefits of probiotic supplementation. *Microbiome* 10, 136 (2022).

Homann CM, Rossel CAJ, Dizzell S, Bervoets L, Simioni J, Li J, Gunn E, Surette MG, de Souza RJ, Mommers M, Hutton EK, Morrison KM, Penders J, van Best N, Stearns JC. Infants' First Solid Foods: Impact on Gut Microbiota Development in Two Intercontinental Cohorts. *Nutrients*. 2021 Jul 30;13(8):2639.



Compares how premature birth and subsequent exposures, i.e. oral feeding at an immature stage, controlled sterile environments, may change how microorganisms develop soon after their birth compared to full term babies



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Obstetrics & Gynecology

Our People, Projects, and Expertise

Dr. Giulia Muraca, Assistant Professor

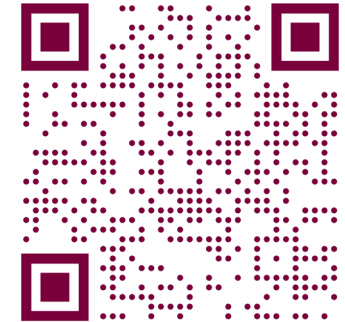


Perinatal Epidemiology
Specialist

Specializing in analysis and linkage of population-based data to characterize maternal and perinatal morbidity and mortality

Expertise & Areas of Study

- Operative delivery (forceps, vacuum, cesarean delivery)
- Obstetric trauma
- Birth (neonatal) trauma
- Vaginal birth after cesarean (VBAC)
- Post-partum hemorrhage
- Intrapartum interventions (e.g., induction, episiotomy)
- Direct and indirect effects of COVID-19 on reproductive, maternal, perinatal well being
- Racial/ethnic disparities in maternal and perinatal morbidity and mortality
- Perinatal outcomes following bariatric surgery
- Variations in pregnancy outcomes by maternity care provider



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Our People, Projects, and Expertise

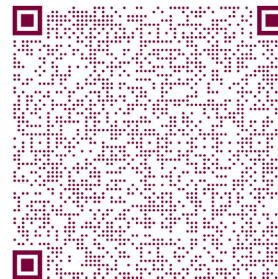
Dr. Giulia Muraca, Assistant Professor

SELECT PUBLICATIONS:

Muraca GM, Joseph KS, Razaz N, Ladfors LV, Lisonkova S, Stephansson O. **Crude and adjusted comparisons of cesarean delivery rates using the Robson classification: A population-based cohort study in Canada and Sweden, 2004 to 2016.**

Muraca GM, Boutin A, Razaz N, Lisonkova S, John S, Ting JY, Scott H, Kramer MS, Joseph KS. **Maternal and neonatal trauma following operative vaginal delivery.**

Watch Dr. Muraca's presentation here!



CURRENTLY FUNDED PROJECT:

Racial/Ethnic Disparities in Postpartum Hemorrhage in Canada



Links to Papers Here Too!

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Our People, Projects, and Expertise

Dr. Serena Gundy, Assistant Professor, Obstetric Medicine



General Internal Medicine/
Obstetric Medicine Specialist

Primary Focus:

The care of medically complex patients who are pregnant or contemplating pregnancy. She participates in the high-risk obstetric clinic seeing pregnant individuals with multi-system illnesses in consort with their high-risk Obstetricians

Special Interests:

- Optimization of Medical Care for women with high risk / pre-existing medical illnesses
- Reduction of complication from pregnancy related health conditions in low recourse areas

CURRENT STUDY:

Hypertensive Disorders of Pregnancy Counselling Practices of Antenatal and Postpartum Health Care Providers in Ontario: A mixed methods study.

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Our People, Projects, and Expertise

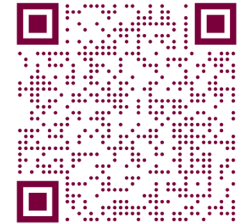
Dr. Samantha Wilson, Assistant Professor



Computational Biologist /
Medical Genetics Specialist

Areas of Research:

- **Bioinformatics**
- **Genomics & Epigenomics and Machine learning**
- **Etiology and Heterogeneity of Placental Dysfunction**
- **Development of Non-Invasive Methods to Assess Placental and Pregnancy Health.**



**Read Dr. Wilson's
Latest Publication!**

Dr. Wilson is passionate about open-access science, research reproducibility, and making source code and data publicly available and accessible



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Obstetrics &
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Our People, Projects, and Expertise

Detangling maternal and placental origins of early and late onset preeclampsia

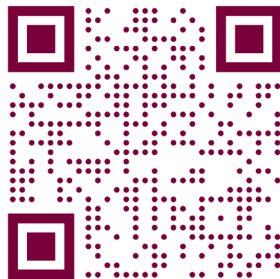
Currently In Progress:

Detangling maternal and placental origins of early and late onset preeclampsia

Developing non-invasive tests utilizing biomarkers for earlier detection / predication of early and late onset preeclampsia.



Wilson
Pregnancy
Lab



If you are a student interested in pursuing further studies in Dr. Wilson's area, please contact: obgynres@mcmaster.ca



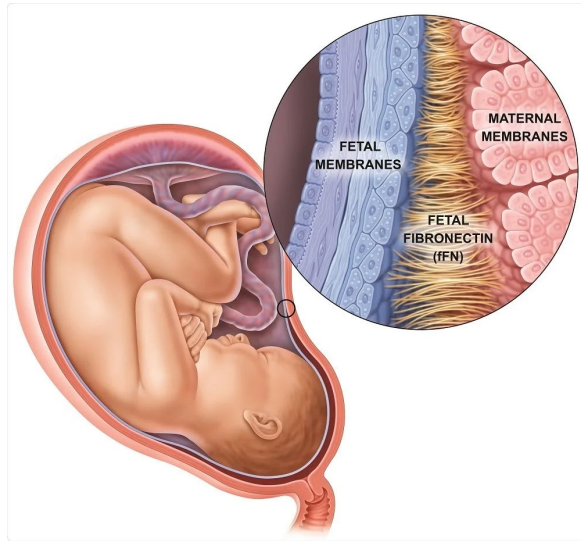
Obstetrics & Gynecology



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Our People, Projects, and Expertise

Pre-Term Birth Clinical Pathway Utilizing Fetal Fibronectin – Dr. Ali Marseu



Implementing a clinical pathway for patients presenting with pre-term birth symptoms utilizing the fetal fibronectin (fFN) test to guide admissions, transfers from primary to tertiary centres & antenatal corticosteroid use.



Obstetrics &
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Our People, Projects, and Expertise

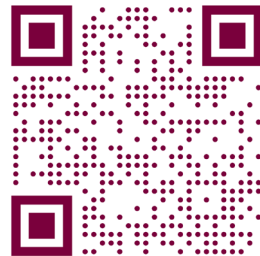
Dr. Kristin Horsley – Post-Doctoral Fellow & Lead Investigator



Clinical Psychologist

The Mental Health After Severe Pregnancy Complications Study

Understanding the mental health impact of severe pregnancy complications, and to provide collaborative mental health care to optimize recovery.



The **MHAP** Study
Putting perinatal mental health on the map

You are eligible to participate if you:

- ✓ Are at least 18 years of age
- ✓ Experienced one or more severe health complication(s) during pregnancy or childbirth
- ✓ Speak English



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Obstetrics & Gynecology

Our People, Projects, and Expertise

A Sample of Our Learners & Their Projects

Dr. Mackenzie Grisdale

Predictors of
cerclage failure in
patients
undergoing
cervical cerclage

Dr. Katrina Hickey

Collapsed blastocyst
impact on pregnancy
rates: a retrospective
study

Dr. Sahra Natho

Assessment of Adverse
Pregnancy and Fertility
Outcomes among
Canadian Female
Physicians



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Dr. Alexandra Davidson

Factors considered in the
selection of a residency or
fellowship placement in
Obstetrics and Gynecology

Dr Jayesh Tigdi

Beat the clock:
Predicting
surgical times for
excision of
endometriosis
using pre-
operative
ultrasound

Dr. Azraa Janmohamed

Management of Early
pregnancy loss at the Early
Pregnancy Assessment
Unit at St. Joseph's
Hospital.