Comprehensive Research Experience for Medical Students (CREMS)

2022 Supervisor and Project Information Form

Please complete and return via email ONLY to crems.programs@utoronto.ca by February 18, 2022.

Supervisor Information

NOTE: CREMS will not support pre-determined pairings of students and supervisors. Supervisors must agree to open their projects to all students and interview all that are interested.

Name: Anne Berndl
Email: Anne.berndl@sunnybrook.ca

Department: Obstetric and Gynecology
Hospital/Research Institution: Sunnybrook Health Sciences Centre

SGS Department(s) (if applicable):
Maternal Fetal Medicine

ORCID ID (see https://orcid.org/ - If you do not have an ORCID ID we encourage you to sign up for one):
https://orcid.org

Location of Work:
Sunnybrook Sciences Centre/ remote

Field of Research (up to 4 keywords):
Disability, pregnancy, urogenic bladder, spinal cord injury

Student contact time (number of hours per week YOU are available to the student for any concerns or to review progress):
5-10
Project Information

NOTE: If this project is selected, this information will be posted on CREMS website for interested student applicants to view research opportunities.

PROJECT TITLE:
The impact of pregnancy on bladder health in people with spinal cord injury

PROJECT DESCRIPTION:
Including background, aim(s), method(s) and significance of the project. Maximum 300 words.

Background: Spinal cord injuries (SCI) often affect bladder function requiring medical intervention to achieve social continence and prevent infections and kidney damage. Women with SCI have specific considerations during pregnancy, especially surrounding bladder health. The effect of pregnancy and birth on long-term urogenital health in women with SCI is unknown; however this information is essential to provide evidence-based prenatal care.

Aim: The aim of this study is to compare the difference in the Neurogenic Bladder Symptom Score (NBSS), a validated scoring system, between people with SCI who have, and have not, had a pregnancy over 20 weeks.

Methods: Data collected from the Spinal cord injury and urogenital health study will be used. Pregnancy history and NBSS score will be assessed using both descriptive and comparative analysis. Possible contributing and confounding variables such as level of spinal cord injury and use of mobility devices will be included in this analysis.

Significance: Little is currently known about SCI and pregnancy, and although people with SCI can successfully have a pregnancy, the impact of pregnancy on their bladder function is unknown. The information gathered from this study is hoped to provide new insights which may inform this key aspect of preconceptual counselling, which may have a significant impact on quality of life for people with SCI, and guide future management.

Is this project remote-capable (in case of new restrictions) or have an alternative remote option?
☒ Yes, remote capable
☐ No
☐ Yes, alternate remote option. Please specify (100 words max): Click or tap here to enter text.

If human subjects are involved, have the appropriate Research Ethics Board approvals been obtained?
☒ Yes
☐ No
☐ Not Applicable

If yes, please list the application submission date:

Do you expect this work will be published?
☒ Yes
☐ No
☐ Uncertain / Other
Research Environment and Student Roles and Responsibilities

Please be specific as possible. Please describe the research environment, including availability of required facilities/equipment/expertise, supervisor’s experience and mentorship plans. Please clearly outline the student role(s) and responsibilities related to the project, potential educational value, and indicate who will serve as the student’s direct report for daily oversight (PI, PHD student, technician, etc.). Maximum 300 words.

The research environment, depending on public health restrictions, will be either be remote or at Sunnybrook. As this study is making use of previously acquired data, computer access is the key piece of equipment.

Dr. Berndl has extensive experience in the field of disability and pregnancy and is the lead author of the SOGC guideline on labour, delivery and post partum care for people with physical disabilities, and has mentored a significant number of students at the undergraduate and post graduate levels resulting a number of publications, oral and poster presentations at national and international conferences.

The student will have the opportunity to work with and analyze a data set consisting of a validated bladder health survey linked to pregnancy status, demographics, and level of spinal cord injury.

The student will have the opportunity to work with spreadsheets, read and summarize background information on spinal cord injury and pregnancy, and will be expected to produce an abstract of their findings with the goal of submitting for presentation at a conference.

They will be working closely with, and report to, Dr. Berndl with frequent meetings, discussion, and mentorship.

They will have the opportunity to attend rounds and journal clubs offered during the research period.

The student may be given the opportunity for ongoing participation in the project to a degree that they will reach criteria for authorship in the final publication if they choose to.