

DATE: February 23, 2024

TO: Senate

FROM: Dr. David Hornsby, Vice-Provost and Associate Vice-President (Academic), and Chair, Senate Quality Assurance and Planning Committee

RE: MSc Clinical Trials and Regulatory Affairs
New Program Approval

SAPC Motion

THAT SQAPC recommends to SENATE the approval of the proposed Graduate Program in Clinical Trials and Regulatory Affairs as presented to commence in Fall 2025.

Senate Motion

THAT Senate approve the proposed Graduate Program in Clinical Trials and Regulatory Affairs as presented to commence in Fall 2025.

Background

The program is an MSc in Clinical Trials and Regulatory Affairs offered through the Department of Health Sciences in the Faculty of Science. This is a full cost recovery program. The program will prepare students to design, carry out, manage and evaluate clinical trials for a wide variety of health products in different settings. This program will provide graduates with the necessary knowledge and skills to be effective practitioners in clinical trials and regulatory affairs.

Attachments

- Discussant Report
- External Reviewers' Report
- Internal Reviewer's Report
- Unit response to the External Reviewers' Report and Implementation plan
- Dean's response to the External Reviewers' Report
- External Reviewer Biographies
- Self-Study with Appendices (Volume I)
- Courseleaf Entries
- Faculty CVs (Volume II)

Quality Assurance Framework and Carleton's Institutional Quality Assurance Process (IQAP)

Upon the above motion being passed by Senate, the required documentation will be submitted to the Quality Council for its review and a decision on whether the Graduate Program in Clinical Trials and Regulatory Affairs will be authorized to commence.

Discussant Report New Program Review

Name: Prashant Waghmare

Program(s) being reviewed: M.Sc. in Clinical Trials

Date of report: December 23rd, 2023

Your discussant report along with the self-study, external reviewers' report, unit response and implementation plan and Dean's response will all be forwarded to SQAPC for review and consideration. This report is circulated only to SQAPC and is not made public however, it can be subject to FIPPA requests.

Review of self-study (Volume I)

It is worth noting that the program is intended for domestic students in their first three years, which warrants using a hybrid approach. However, there are a few aspects that need clarification:

(i) Though this program is vital in meeting the health sector's urgent demands, it's equally essential to discuss and present recruitment strategies for domestic students.

(ii) It's not clear whether the hybrid program will be discontinued after an international cohort enrolls.

After reading the report, I had a question: why wasn't the asynchronous approach presented when the part-time option was available? Additionally, can experiential learning components be interactive and immersive through Virtual and Augmented Reality? It's a critical need of the day and could be an attractive option for students. A plan to retain talent within the province and Canada for international students would add value to the report.

Also, there are concerns about the Department Supervisor's role and availability, as well as their duties and compensation, which are unclear.

Review of External Reviewer's Report

In summary, the external report provides detailed and constructive feedback while also raising a few concerns regarding the following:

- i) The program being primarily a hybrid master's program
- ii) The distinction between candidates with and without prior work experience and how it will be assessed during the admission process
- iii) The addition of a physiology course as a prerequisite
- iv) The involvement of Clinical Instructors (CIs) and the program being centred around the faculty member who will be hired in the future with expertise in clinical trials
- v) Confirmation of the availability of paid internships.

Review of Unit Response and Implementation Plan

Unit and the Dean have thoroughly reviewed all the feedback provided by the externals and presented practical and achievable strategies along with implementation plans.

Unit Response and Implementation Plan: Summary of Recommendations

External Reviewer Recommendation	Discussant's concern	Discussant Recommendation
#2	Lack of clarity in the unit's response.	The number of faculty positions is not clear (only one faculty member?), and the area of expertise.
#6	The unit has missed a potential opportunity for engaging with students.	Worth thinking of AR/VR

Recommendation of program outcome

1) Recommended to commence

Additional comments

I am concerned that having only one Graduate Administrator is not sufficient and that an additional faculty member should be assigned to administrative duties. An example of a successful implementation of this approach can be seen in the Engineering Practice (EP) department, where they appointed an inaugural Director with relevant experience who can also teach some courses. Furthermore, they hired a Manager with academic experience who can teach non-engineering courses as well.

Retaining future employees and interns within the Canadian or provincial job market. For the sustainable growth of the program these strategies must be planned.



External Reviewer Report Template – Cyclical Program Review

The external reviewer’s report serves to inform the Senate Quality Assurance and Planning Committee and Carleton University Senate. Reports can be brief on those criteria that reviewers feel are being met successfully and focus on 1) criteria that give rise to issues, on recommendations for program improvement and on 2) significant strengths, including any clearly innovative and creative aspects of the program. In the sections below you will find bullets, taken directly from the Cyclical Review Terms of Reference and Carleton University IQAP, these are items to consider and can be used as a guide but are not individual questions requiring specific responses. At the end of the document we ask that you summarize your overall recommendations for the program.

Please note that this document will be made public, we would ask that you please refrain from using specific names or identifiers as all comments are to be held anonymous on the report.

Recommendations

The most important part of the report from the point of view of the university will be the recommendations made for program improvement (a minimum of 3 are required). We therefore request that all recommendations be clearly listed under 3 main categories:

- **Weakness:** Remedial action is recommended to strengthen compliance with program quality standards.
- **Concern:** Potential risk to future quality that should be considered.
- **Opportunity:** Recommendation for future enhancements

Program(s) being reviewed:	MSc, Clinical Trials and Regulatory Affairs
Date of review:	June 2023
Names and Emails of External Reviewers:	Srinivas Murthy, srinivas.murthy@cw.bc.ca Ahmad Haider, ahmad.haidar@mcgill.ca
Date of Report:	14 Aug 2023

Considerations for the Review

Note: this document list criteria for both undergraduate and graduate programs, depending on the type of review being conducted not all will need to be considered

Program Objectives

Carleton University is taking a strategic direction to respond to their community’s needs, and the growing Health Sciences Program in the Faculty of Science has put together a Masters in Science in Clinical Trials and Regulatory Affairs. This program will be unique in Ontario, at the Masters level and will aim to train Canadian students in the emerging science of clinical trials

and regulatory affairs. There are training programs for Clinical Research Associates, largely diploma or certificate based, in Ontario, and there are Masters in Clinical Trials at other institutions outside of Ontario, ie McGill, and internationally, ie the United Kingdom. Hence, there appears to be a niche for this program, and the work done thus far has demonstrated a demand across and beyond the Carleton community.

Program Requirements

- Appropriateness of the program's structure and the requirements to meet its objectives and program-level learning outcomes

The structure of the program as a largely hybrid masters, with or without a practicum depending on previous experiences, should meet the needs of graduating students and the program objectives. The coursework, consisting of didactic materials on clinical trials and regulatory components, is largely relevant for the expectations. Of great relevance is the practicum for those students who do not have previous clinical trials experience.

As clinical trials are largely team-based efforts with a large number of stakeholders, it is imperative that graduates have some communications training, both written and verbal, to ensure that messaging is integrated.

- Appropriateness of the program's structure, requirements, and program-level learning outcomes to meet Carleton's own undergraduate or graduate Degree Level Expectations

The variability in the program requirements between those who do not have prior work experience and those who do is substantial. Specifically, the difference in credits required for graduation differs – we defer to Carleton internal Quality assessments to determine the appropriateness of this.

- Appropriateness and effectiveness of the mode(s) of delivery to facilitate students' successful completion of the program-level learning outcomes

The coursework will largely be hybrid in nature, with a number of in-person sessions throughout the year to ensure community building and other benefits of in-person graduate training. The hybrid model is appropriate for the expected student body, who may largely be professionals looking for added training.

- Ways in which the curriculum addresses the current state of the discipline or area of study

The curriculum reflects the dynamic nature of regulatory affairs; however, given the rapidly shifting landscape, will need to frequently update course materials and ensure that instructors are up-to-date with latest changes in regulatory spheres. Through this, any new faculty hires or contract instructors should have appropriate and up-to-date expertise that is broad-based.

We encourage the faculty to consider adding a physiology course as a pre-requisite.

- Identification of any unique curriculum or program innovations or create components, or significant high impact practices

While initial hesitation about the substantial utilization of contract Instructors, this is appropriate, given the professional nature of the program and where expertise lies. It will be important that these contract instructors are supported by the faculty to conduct the courses, and ensure that the curriculum design is easy to implement and meet pedagogical objectives.

Program Requirements for graduate programs only

- Clear rationale for program length that ensures that students can complete the program-level learning outcomes with the time required

The duration of the program is appropriate for the learning objectives.

- Evidence that each graduate student in the program is required to take a minimum of two-thirds of the course requirements from among graduate-level courses

Clear language about course requirements in place.

Assessment of Teaching and Learning

- Appropriateness and effectiveness of the methods for assessing student achievement of the program-level learning outcomes and degree level expectations

Overall, it is hard to make assessments of the curriculum without a syllabus. There remains a substantial amount of work in course design and delivery that is incomplete at this stage. Much work will fall onto the shoulders of a new faculty hire, so implementation of the program is largely contingent on ensuring that this faculty is hired in an expedient fashion. From assessing the course titles, it appears that they are comprehensive.

For the practicum periods, there is a requirement that a Department Supervisor is required; whether the capacity to be that supervisor is present in the current faculty, depending on ultimate enrolment, is unclear.

- Appropriateness and effectiveness of the plans to monitor and assess:
 - The overall quality of the program
 - Whether the program continues to achieve in practice its objectives
 - Whether its students are achieving the program-level learning outcomes
 - How the resulting information will be documented and subsequently used to inform continuous program improvement

The program learning outcomes assessment plan is adequate. The method of assessment would be strengthened if it included alumni tracking and post-graduate job placements. The current method heavily focuses on students' performance in courses. This criterion is appropriate,

but risks that, inadvertently, standards may fall to artificially inflate students' performance over time.

Admission Requirements

- Appropriateness of the program's admissions requirements given the program's objectives and the program-level learning outcomes

The primary concern with the admission requirements is the ability to assess experience to bypass the practicum. Many students may prefer to avoid the practicum, and hence, will likely document some clinical trials experience at baseline; whether this qualifies to bypass a crucial real-world experience will be difficult to assess.

Resources

Consideration of the following points is to be given with consideration to the program's class sizes and cohorts, as well as its program-level learning outcomes:

- Participation of a sufficient number of qualified core faculty who are competent to teach and/or supervise in and achieve the goals of the program and foster the appropriate academic environment

Current core faculty lack skills, and crucial to have new faculty and important to establish contract faculty and new money allocated to hire contract instructors. Much of work is dependent on new hires, which is a concern, dependent on who that individual is, and represents a core risk of this program.

- Provision of supervision of experiential learning opportunities

It is unclear whether the department has the capacity to provide a Department Supervisor for each student during the practicum periods. This will have to be assessed after new faculty are enrolled.

- Adequacy of the administrative unit's utilization of existing human, physical and financial resources

Specific senior-level admin support is mandatory at curriculum development stage. Current administrative staff in the department clearly does not have the capacity to take on an additional program.

- Evidence that there are adequate resources to sustain the quality of scholarship and research activities produced by students, including library support, information technology support, and laboratory access

The program curriculum includes one elective course from a pre-defined list. We note that these courses were not made hybrid yet, which would require nontrivial recourses. We recommend that the elective should not be mandatorily hybrid, so students have more

options to take from campus-wide courses.

Resources for graduate programs only

Given the program's class sizes and cohorts as well as its program-level learning outcomes:

- Evidence that faculty have the recent research or professional/clinical expertise needed to foster an appropriate intellectual climate, sustain the program, and promote innovation

A concern, dependent on new hires.

- Evidence of how supervisory loads are distributed, in light of qualifications and appointment status of the faculty

More details required for supervisory loads of relevant faculty. Plan B for non-placed students for internship (within local faculty) should be documented. Lack of an embedded Clinical Trials Unit, and related expertise, within institution, where students can be automatically placed, makes Carleton not an ideal location for this program, compared with other institutions with more clinical trials infrastructure.

Quality and other indicators

- Evidence of the quality of the faculty (e.g., qualifications, funding, honours, awards, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the program and commitment to student mentoring)

More evidence of clinical trials expertise would be important across the faculty.

Additional Comments:

Tuition might be a threat for recruitment, particularly with likelihood of paid internships being low.

Syllabus mentions faculty support for internship – unclear where expertise lies, or if 1-2 faculty members will supervise all students

Summary of Recommendations/Program Enhancements

Use the chart below to summarize your overall recommendations for the program and suggested program enhancements.

Recommendation	Category (<i>Weakness, Concern, Opportunity</i>)
1) Senior admin support will be required to implement the program.	Concern

2) Devote attention to new faculty hire to ensure alignment with needs, and done expediently if hoping to offer program in 2024.	Concern
3) Given the demands on partners, there needs to be formalized relationships with partner organizations to establish pipeline of recruits and practicums. Current letters of support from organizations not entirely clear if they are relevant or sustainable.	Concern
4) Expand curriculum to integrate communication skills (writing and presentation)	Weakness
5) Lack of clinical trial expertise across current faculty distribution – hiring appropriate people, and will require both short- and long-term planning needs	Weakness
6) Online delivery good opportunity for expansion beyond Ottawa region	Opportunity
7) Involve ethics boards and other clinical trial stakeholders (including patients) in curriculum delivery	Opportunity
8) Create alternative plans for students who fail to place a practicum within program.	Concern
9) Create a realistic plan for Clinical Trials II internship, given likely challenges in placing students for that period, and consider removing internship altogether in this	Concern
10) Involve Health Canada in teaching and practicum placements, which benefits from its physical proximity to Carleton	Opportunity

Internal Reviewer Site Visit Report

Name: _____

Program(s) being reviewed: _____

Date of visit: _____

Please provide brief comments on the site visit and particularly anything you feel should be brought to the attention of the Vice-Provost and Associate Vice-President (Academic):

Clinical Trials
Unit Response to External Reviewers' Report & Implementation Plan
Programs Being Reviewed: Graduate Program

Note: This document is forwarded to Senate, the Quality Council and posted on the Vice- Provost's external website.

Introduction & General Comments

Please include any general comments regarding the External Reviewers' Report.

The Department of Health Sciences was pleased to receive the Reviewers' positive External Reviewers' report on August 24th, 2023. This report was shared with our faculty and staff, and we are committed to the continual improvement of our program to enhance the student, staff, and faculty experience. This document contains our response to the External Reviewers' Report and has been discussed with the Dean of the Faculty of Science, Dr. Maria DeRosa.

For each recommendation, one of the following responses must be selected:

Agreed to unconditionally: used when the unit agrees to and is able to take action on the recommendation without further consultation with any other parties internal or external to the unit.

Agreed to if additional resources permit: used when the unit agrees with the recommendation, however action can only be taken if additional resources are made available. Units must describe the resources needed to implement the recommendation and provide an explanation demonstrating how they plan to obtain those resources. In these cases, discussions with the Deans will normally be required and therefore identified as an action item.

Agreed to in principle: used when the unit agrees with the recommendation, however action is dependent on something other than resources. Units must describe these dependencies and determine what actions, if any, will be taken.

Not agreed to: used when the unit does not agree with the recommendation and therefore will not be taking further action. A rationale must be provided to indicate why the unit does not agree (no action should be associated with this response).

Calendar Changes

If any of the action items you intend to implement will result in calendar changes, please describe what those changes will be. To submit a formal calendar change, please do so using the Courseleaf system.

UNIT RESPONSE AND IMPLEMENTATION PLAN

Programs Being Reviewed:

Prepared by (name/position/unit/date):

External Reviewer Recommendation & Categorization	Unit Response: 1- Agreed to unconditionally 2- Agreed to if additional resources permit (describe resources) 3- Agreed to in principle 4- Not agreed to Rationales are required for categories 2, 3 & 4	Action Item	Owner	Timeline	Will the action described require calendar changes? (Y or N)
1. Senior admin support will be required to implement the program. Concern	1.	<i>On its May 30, 2022, meeting, the PBWG approved the program in principle with the qualification that a request for the new graduate administrator is required prior to recruitment. The 2023-24 budget allocation indicated that staff positions for the program will be considered off-cycle. The Departmental Chair will work with the Dean to hire a graduate administrator for summer 2024.</i>	<i>Departmental Chair, Dean</i>	<i>July 1, 2024</i>	<i>N</i>
2. Devote attention to new faculty hire to ensure alignment with needs, and done <u>expediently</u> if hoping to offer program in 2024. Concern	1.	<i>The advertisement for the new faculty position was posted with the closing date of September 30, 2023. We anticipate concluding the hiring process such that the new faculty will start on July 1, 2024. In addition, in consultation with the Dean, we have elected to postpone the program start to F2024 (first cohort to start Sep 2025) to allow sufficient time for program development and staffing.</i>	<i>Departmental Chair, Hiring Committee, Dean, Entire department</i>	<i>July 1, 2024</i>	<i>N</i>

<p>3. Given the demands on partners, there needs to be formalized relationships with partner organizations to establish pipeline of recruits and practicums. Current letters of support from organizations not entirely clear if they are relevant or sustainable. Concern</p>	<p>1.</p>	<p><i>Practicums: We started the development of practicum documents (guidelines and blueprint) that will be used to formalize relationships with potential partners. Once these documents are developed, we will approach our partners and develop official partnerships and MOUs. In parallel, we will use our partnerships as opportunities for possible recruitment of teaching staff (contract instructors) and to develop a pipeline for student recruitment.</i></p> <p><i>Student recruitment: The development of the program blueprint (see above) will be complemented by the construction of the program website and additional advertisement materials. We will launch the advertisement campaign in August 2024 through social media and our partners. In addition, we will consider hiring an external marketing company to help with student recruitment.</i></p>	<p><i>Department Chair, Program Development Task Force, New Faculty Hire (program coordinator)</i></p>	<p><i>Ongoing</i></p>	<p><i>N</i></p>
<p>4. Expand curriculum to integrate communication skills (writing and presentation). Weakness</p>	<p>1.</p>	<p><i>We agree with this recommendation and will expand the curriculum to integrate communication skills. The Department Chair is in discussion with the School of Journalism and Communications about the possibility of jointly co-developing a course, or a course module, on Health Communications that could be used by both units.</i></p>	<p><i>Graduate Curriculum Committee, Department, Department Chair, Program Development Task Force</i></p>	<p><i>August 2024</i></p>	<p><i>Y</i></p>

<p>5. Lack of clinical trial expertise across current faculty distribution – hiring appropriate people, and will require both short- and long-term planning needs. Weakness</p>	<p>1.</p>	<p><i>We are in the process of hiring a new faculty with expertise in clinical trials and regulatory affairs space (see #2 above). This person will become the Program Coordinator involved in program development and delivery (see also #7-10 below). In addition, we will use our established and new partnerships (see #3 above and #10 below) to recruit experts in appropriate areas of clinical trials and regulatory affairs to be teaching faculty (contract instructors) for the new program.</i></p>	<p><i>Department Chair, Program Development Task Force</i></p>	<p><i>Ongoing</i></p>	<p><i>N</i></p>
<p>6. Online delivery good opportunity for expansion beyond Ottawa region. Opportunity</p>	<p>1.</p>	<p><i>We agree completely. Indeed, the curriculum of the new program was designed to be offered in an innovative way. A hybrid delivery model involving both in-person and online courses will be used. This should make the program more appealing to all students, notably those from outside Ottawa who will not have to move to Ottawa for a prolonged period.</i></p>	<p><i>Department Chair, Program Development Task Force</i></p>	<p><i>Completed</i></p>	<p><i>N</i></p>
<p>7. Involve ethics boards and other clinical trial stakeholders (including patients) in curriculum delivery. Opportunity</p>	<p>1.</p>	<p><i>The hybrid and modular mode of curriculum delivery allows for the integration of different voices, including ethics boards and patient groups. This is, in fact, one of the learning outcomes of the program (LO2). Several courses allow for including external stakeholders (e.g. HLTH 5811, 5814, 5818). The program coordinator and the graduate curriculum committee will work with the teaching faculty to ensure this.</i></p>	<p><i>Department Chair, Program Development Task Force, Faculty Hire (program coordinator), graduate curriculum committee</i></p>	<p><i>Ongoing</i></p>	<p><i>N</i></p>

<p>8. Create alternative plans for students who fail to place a practicum within program. Concern</p>	<p>4.</p>	<p><i>Practicums are an essential component of the new program (practicum stream); therefore, there can be no alternative plans. However, we acknowledge that there may be circumstances where students may not succeed in the practicum, for example, due to lack of maturity or failing to meet the code of conduct etc. The Program Development Taskforce is developing technical standards and guideline documents for the practicums, which will address these possibilities and provide solutions on how to deal with unsuccessful students. These documents will be partly based on the existing documents which were developed for our BHSc field placements and MSc: HSTP practicums. Any specific student issues with completing practicums will be handled on a case-by-case basis.</i></p>	<p><i>Department Chair, Program Development Task Force, Faculty Hire (program coordinator)</i></p>	<p><i>August 2024</i></p>	<p><i>N</i></p>
<p>9. Create a realistic plan for Clinical Trials II internship, given likely challenges in placing students for that period, and consider removing internship altogether in this. Concern</p>	<p>1.</p>	<p><i>We agree that the placement internship component of HLTH 5814 Clinical Trials II is a weak point of the current curriculum design. Therefore, the internship component will be removed from the curriculum.</i></p>	<p><i>Department Chair, Program Development Task Force, Faculty Hire (program coordinator)</i></p>	<p><i>6 months</i></p>	<p><i>Y</i></p>
<p>10. Involve Health Canada in teaching and practicum placements, which benefits from its physical proximity to Carleton. Opportunity</p>	<p>1.</p>	<p><i>We continue to develop our partnerships with Health Canada both for student practicum opportunities and to recruit teaching staff for the program. See also #3 above.</i></p>	<p><i>Department Chair, Program Development Task Force, Faculty Hire (program coordinator)</i></p>	<p><i>Ongoing</i></p>	<p><i>N</i></p>

Clinical Trials
Dean's Response
Programs Being Reviewed: M.Sc. Clinical Trials
Date: November 15th, 2023
Version: 1

Instruction

The table below has been pre-populated with the external reviewer recommendations. Please complete the Dean's Response column by providing a separate response to each of the external reviewers' recommendations, as required by the QAF (5.3.1).

Dean's Response Programs Being Reviewed: Clinical Trials Prepared by: Maria DeRosa	
External Reviewer Recommendation & Categorization	Dean's response A response is required for each recommendation listed.
1. Senior admin support will be required to implement the program. Concern	PBWG approved this program in May 2022 in principle. Hiring a support staff for the program will be reflected in FS 2023-24 budget allocation. I will work together with the Dept to hire the Grad Administrator prior to recruitment.
2. Devote attention to new faculty hire to ensure alignment with needs, and done <u>expediently</u> if hoping to offer program in 2024. Concern	Sept 30, 2023 was the deadline for applications for the new faculty position in Health. It is our goal to conclude the hiring process in the winter term such that the new faculty can start at Carleton on July 1, 2024 before the first cohort (to start in Fall 2025).
3. Given the demands on partners, there needs to be formalized relationships with partner organizations to establish pipeline of recruits and practicums. Current letters of support from organizations not entirely clear if they are relevant or sustainable. Concern	The Dept has already started creation of formal documents for practicum guidelines and blueprint. With these documents, I expect that program partnership will be officially formalized, and student recruitment will be launched in late summer of 2024 (through program website, social media, and program partners). I also encourage the Dept to consider the feasibility of hiring an external marketing company to help with student recruitment.

<p>4. Expand curriculum to integrate communication skills (writing and presentation). Weakness</p>	<p>I support the proposal by the Dept to expand the curriculum to integrate communication skills though a new course, or course a module, co-developed with the School of Journalism and Communications at Carleton.</p>
<p>5. Lack of clinical trial expertise across current faculty distribution – hiring appropriate people, and will require both short- and long-term planning needs. Weakness</p>	<p>The new faculty to be hired (ref to recommendation 2) is expected to have expertise in clinical trials and regulatory affairs. In addition, resources will be allocated to recruit highly qualified contract instructors (Cis) through help of established and new partnerships to teach courses in the required area.</p>
<p>6. Online delivery good opportunity for expansion beyond Ottawa region. Opportunity</p>	<p>I agree with both the external reviewer and the Dept that the hybrid delivery feature of the program does provide opportunities for remote access to the program.</p>
<p>7. Involve ethics boards and other clinical trial stakeholders (including patients) in curriculum delivery. Opportunity</p>	<p>That is a very good recommendation, and I completely agree with the response and action plan from the Dept.</p>
<p>8. Create alternative plans for students who fail to place practicum within program. Concern.</p>	<p>Practicum is essential for the new program. I support the initiative by the Dept to develop technical standards and guideline documents for practicums to address possible issues towards success and provide solutions for being successful.</p>
<p>9. Create a realistic plan for Clinical Trials II internship, given likely challenges in placing students for that period, and consider removing internship altogether in this. Concern.</p>	<p>I noticed that Dept followed the external reviewer recommendation to remove the internship component for Clinical Trials II.</p>

10. Involve Health Canada in teaching and practicum placements, which benefits from its physical proximity to Carleton.
Opportunity.

I support the Dept plan to develop partnerships with Health Canada for both student practicum opportunities and teaching faculty recruitment. Resources and support from FS Infrastructure, Partnerships and Operations will be available.

External Reviewer Biographies

Clinical Trials and Regulatory Affairs Site Visit



Dr. Ahmad Haidar

McGill University

The development of the artificial pancreas is the focus of Dr Haidar's lab. The artificial pancreas is a medical device that automatically regulates glucose levels for patients with type 1 diabetes. The artificial pancreas is composed of a glucose sensor, an infusion portable pump, and an advanced mathematical dosing algorithm that controls hormonal delivery based on the sensor readings.

Dr Haidar's lab uses commercial pumps and sensors, but develop and clinical test novel control algorithms that lie at the heart of the artificial pancreas. Dr Haidar's lab also conducts clinical trials to assess different configurations of the artificial pancreas, the performance of the artificial pancreas during exercise and meals, and the performance of the artificial pancreas in special patient populations and during long term use.

The artificial pancreas is considered the most promising therapy for type 1 diabetes. The work of Dr Haidar has a great potential to improve patients' quality of life.



Dr. Srinivas Murthy

University of British Columbia

Dr. Srinivas Murthy is co-chair of the World Health Organization's clinical research committee on COVID-19. He is an associate professor in the Faculty of Medicine at University of British Columbia, as well as a critical care and infectious diseases physician at B.C. Children's Hospital in Vancouver.

Murthy's research focuses on infectious disease, clinical practice and clinical trials, and global health. Murthy grew up in St. John's, attended Prince of Wales Collegiate, and completed his undergraduate degree at Memorial University. He was awarded the University Medal for Academic Excellence in Biochemistry. Murthy completed his Doctor of Medicine at McGill University in Montreal and his residency at Boston Children's Hospital through Harvard Medical School.

He has also worked on the frontlines for a number of infectious disease outbreaks, including work on Ebola in Liberia, West Africa.

**Carleton
University**



Office of the Vice-Provost and
Associate Vice-President (Academic)

Institutional Quality Assurance Process

**Clinical Trials and Regulatory Affairs
Master of Science**

Volume 1

October 11, 2022

Approvals Table

This table will record that the brief has been approved by: 1) the program lead on behalf of the team; 2) the head of the academic unit or chair of the program committee (in the case of interdisciplinary programs not administered exclusively by one academic unit) on behalf of the unit or program committee; 3) the Faculty Dean(s).

Program Lead **Date**

Chair/Director **Date**

Dean(s): **Date**

Committees Reviews and Approvals

Vice-Presidents' Academic Research Committee (executive summary)	
Provost's Budget Working Group (executive summary)	
Curriculum Committee	
Faculty Board	
Senate Committee on Curriculum, Admissions on Studies Policy	
Senate Quality Assurance and Planning Committee	
Senate	
Quality Council	

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A. The Program

A.1 Program Overview

A.1.1 Introduction

Concept

The Department of Health Sciences at Carleton University seeks to develop a **Master of Science (MSc) Clinical Trials and Regulatory Affairs** program to meet pressing needs in the healthcare research community, government and industry. This one-of-a-kind program will prepare students to design, carry out, manage and evaluate clinical trials for a wide variety of health products in different settings.

At present there is no such graduate program in Ontario, so people enter this field in many ways: on-the-job training, undergraduate degree with a research focus, transfer from a research position, commercial training program, etc. This is far from optimal in terms of academic preparation, as our external consultations have taught us.

Clinical trials are research studies performed on humans that are aimed at evaluating a medical, surgical, or behavioural intervention. They are the primary way that researchers establish if a new treatment, like a new drug or medical device (e.g. pacemaker) is safe and effective for use on people.

According to Health Canada “The intent of a clinical trial is to research and gather information on a drug’s dose, effectiveness and safety in humans. Trials are undertaken with informed and consenting human subjects according to good clinical practices. This provides a controlled environment where the procedures for drug administration and the evaluation of the results are closely monitored.”

Overall Goal

This program will provide graduates with the necessary knowledge and skills to be effective practitioners in clinical trials and regulatory affairs. In keeping with Carleton’s commitment to **experiential learning**, students will have several opportunities to practice what they learn during the program with our partner agencies in the clinical trials and regulatory fields. These include a placement of four to six weeks in the HLTH 5813 Clinical Trials 2 course and a four-month practicum in HLTH 5820 Clinical Trials Practicum, the program’s capstone course.

Program Structure

To respond to the needs of students and employers, this MSc program will have **two streams**:

- **Degree with practicum** for students with an undergraduate or graduate degree in health sciences or a related field (including engineering), who may or may not have work experience in clinical trials. Its practicum at a partner organization includes hands-on involvement in clinical trials and a project supervised by a preceptor from that organization.
- **Degree without practicum** for professionals with an undergraduate or graduate degree in health sciences or a related field, who have been working for a minimum of two years in clinical research, with direct exposure to clinical trials or regulatory aspects of such trials. These students are given credit for the practicum, due to their pertinent experience.

Students from these two streams will take their courses together. They will collaborate in groups like members of clinical trials teams.

There will be **full-time and part-time cohorts** in the program, particularly though not exclusively for the Degree with practicum stream. Students in the Degree without practicum stream will be more inclined to be part-timers who continue simultaneously in their jobs. Program cohorts may be phased in at the outset.

This program will be offered in an **innovative** way. A **hybrid delivery** model, involving **both in-person and on-line** courses, will be used. This should make the program more appealing to all students, notably those from outside Ottawa who will not have to move to Ottawa for a prolonged period. This should lead to increased enrolment.

Here is how the hybrid model works:

Components

- 2 components: approximately 4.5 credits online course-learning, 1.5 credits experiential learning

Objectives

- to meet the learning objectives of the new MSc Clinical Trials and Regulatory Affairs program in the Department of Health Sciences at Carleton University
- to satisfy the provincial Degree Learning Objectives for a graduate program

Benefits

- ensures effective and flexible delivery of the program
- allows the advantages of on-line and in-person learning to be included in program delivery
- permits students from Ottawa and beyond to take the program

In-Person Sessions

- 3 mandatory in-person sessions: Session 1 (late August/early September of year 1), middle: Session 2 (May/June of year 1) and end: Session 3 (mid December of year 2) of the program
- each in-person session is 3 to 4 days, including a weekend, for up to 8 hours each day
- Session 1 at the start of the program includes orientation, program learning objectives, and some lessons from HLTH 5812 Clinical Trials 1 and also HLTH 5815 Principles of Data Management and Analysis in Clinical Trials, with the remaining lessons of these courses offered on-line thereafter. Latter parts of the pre/early-program courses may also be completed here.
- Session 2 (May/June of year 1) includes discussion of learning experiences to date, some lessons of HLTH 5813 Clinical Trials 2 and also HLTH 5819 Clinical Trials Protocols, Operations and Management (with the remaining lessons of these courses offered on-line thereafter), along with practicum orientation and preparation for students in the practicum stream..
- Session 3 (mid December of year 2) allows students in the practicum stream to present their clinical trials research projects to first and second-year students from both streams, professors and practicum preceptors. The hybrid format of delivery (in-person with synchronous online option) will ensure participation without geographic restrictions.

On-line learning

- During these times, students will remain at home off-campus in Ottawa or beyond. Students from outside Ottawa could also remain there or elsewhere for their practicums should suitable arrangements with practicum organizations in these locations be made.

For students without relevant clinical trials work experience, a four-month **practicum will** occur at the end of the program at partner agencies such as research institutes, government agencies like Health Canada and the Public Health Agency of Canada, pharmaceutical companies, contract research organizations, or similar organizations involved in clinical trials. **Students and practicum sites will be matched** according to their interests. Practicums will be in-person or remote, depending on the specific needs of practicum preceptors. Sites will be encouraged to pay stipends to students for their practicums to recognize the value of the work they are doing. A **preceptor** at each practicum site will be responsible for the student, while a professor will liaise with the student and the preceptor, particularly regarding the student's clinical trials project. This experience will enhance employment opportunities for graduating students.

Here is how the process of planning and operationalizing practicums will unfold.

During the program’s preparatory phase (year 0) the Department will contact potential host sites to determine their interest in receiving students annually in four-month practicums with hands-on experience. Sites will benefit from having students who have completed most or all of their coursework and can contribute as a team member for existing clinical trials that already have Research Ethics Board approval.

Every year the Department will re-confirm the participation of existing practicum sites and seek out new ones. As mentioned above, one of the activities of the second in-person session in mid-program will be preparation for the practicums. This will require an orientation by the department and a process for determining student interest in specific practicum sites.

Each practicum site will designate a preceptor to whom the student reports during the practicum. Each preceptor will evaluate the student’s performance according to a rubric developed by the Department. Student may be exposed to a number of clinical trials projects, but will have one major project among them, in which she/he plays an identifiable role with specific responsibilities. Each student will request a faculty advisor for the major project. One faculty member, supported by a program administrator, will have responsibility for coordination of the practicum process overall. This approach relieves faculty of the need to ‘create’ research projects for students and allows them to act mostly as advisors, since the preceptors are responsible for supervising students during their practicums.

Two or three weeks prior to the end of the practicums, the Department will hold a session for students to present the results of the major project in the practicum, according to content guidelines developed by the Department. Those attending this session will include first and second-year students, professors, preceptors and others from the practicum sites who are invited by the students. There could also be awards for best presentations at this session.

A.1.2 Innovative Features

The **hybrid delivery model** described above is an innovative feature. It builds upon the expressed needs of students and professors for more in-person learning following two+ pandemic years while recognizing the reality that on-line education will necessarily be part of the future. Our approach will offer the best of both these worlds.

Partnerships both internal and external to Carleton are another innovative feature of the program. Internal partnerships are identified in Section B, while external partnerships are described in Table A.1 below. We have had informal contact with some of these external organizations to date, including requests for letters of support.

Table A.1: External Partnerships (proposed)

Sector	Partner	Activities	Benefits
University	Carleton:		

(beyond Carleton Departments)	<p>Training and Learning Service Information Technology Services Centre for Indigenous Affairs</p> <p>Evidence-Based Synthesis Institute</p> <p>Western University: Clinical Trials Program University of Toronto: Epidemiology & Research</p>	<p>design online courses</p> <p>review course syllabi, support indigenous students in the program</p> <p>do joint clinical trials/systematic reviews projects</p> <p>share courses and experiences</p> <p>share courses and experiences</p>	<p>state-of-art technology in program delivery</p> <p>indigenous inclusion</p> <p>collaboration in common research areas</p> <p>learn from similar experience</p> <p>learn from similar experience</p>
Research Institutes	<p>Ottawa Hospital Research Institute CHEO Research Institute Institut du Savoir Montfort Royal Ottawa Research Institute</p>	<p>do contract instruction, be a practicum and placement site, offer scholarships, offer job opportunities</p> <p>mentor students</p>	<p>hands-on student experience with trials, collegial support for students entering the profession</p>
Government	<p>Health Canada</p> <p>Public Health Agency of Canada</p> <p>Ontario Ministry of Health</p>	<p>collaborate on training, do contract instruction, be a practicum and placement site</p> <p>be a practicum and placement site</p>	<p>access to all regulatory services & expertise</p> <p>access to public health services & expertise</p> <p>access to provincial programs</p>
Associations	<p>Clinical Trials Ontario Clinical Trials Network</p> <p>Canadian Association of Professionals in Regulatory Affairs Clinical Research Association of Canada</p>	<p>promote workforce education, join trial site network, be a practicum and placement site, offer scholarships, offer job opportunities</p> <p>mentor students, be a practicum and placement site, participate in student orientation</p>	<p>hands-on student experience with trials, support for students entering & graduating from the program</p> <p>collegial support for students entering the profession</p>
Industry	<p>Pharmaceutical Companies Contract Research</p>	<p>do contract instruction, be a practicum site, offer job opportunities</p>	<p>hands-on student experience with trials,</p>

	Organizations		student exposure to drug development and approval process
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The inclusion of a **practicum** is yet another innovative feature of the program. It will reinforce knowledge and skills acquired during the program in a structured field experience for all students who do not yet have clinical trials experience. This exemplifies our **experiential learning approach**.

For example, here are some possible sites for a practicum at Health Canada, although none of these have yet been confirmed:

- Therapeutic Products Directorate - Office of Clinical Trials
- Biologics and Radiopharmaceuticals Drug Directorate - Office of Clinical Trials
- Regulatory Operations and Enforcement Branch - Clinical Trial Compliance Program
- Medical Devices Directorate - in their Investigational Testing Application area

Although we have not made provision for it now, another possible option would see the practicum divided into halves of two months each. These halves would occur in each of the clinical trials and regulatory sectors, thus ensuring that students are exposed to both areas and have well-rounded experience when they graduate.

Once all course requirements except for the capstone course are completed, students in the Practicum Pathway will move to their Practicum sites. This allows students to bring to bear the full range of their skills and competencies in the practicum. It also permits them to concentrate their efforts fully on the Practicum, without interference from any other course assignments.

In order to advise the Department of Health Sciences regarding the need for and design of the new program, consultations with a sample of key players in the clinical trials and regulatory affairs fields were conducted by the Department Chair and some members of the Working group. These consultations included:

from clinical research organizations (CRO):

- Chief Executive Officer of a CRO who runs trials for different companies in the neuromuscular area.
- Director, Clinical Development for a worldwide CRO who has 20+ years experience in design, management and optimization of clinical trials and other research programs
- Geneticist and full Professor at an R1 institution (>50K citations); has done drug discovery from preclinical to trials. Running clinical trials since 2015 as CEO of a biotech and CRO start-up.
- Senior Project Manager of CRO who oversees international trials for pharmaceuticals
- Director, Project Management Development Programs (PMDP) for a large international CRO

from Ottawa-area research institutes:

- Full Professor and Clinical Research Chair at an Ottawa-area hospital, actively running clinical trials, both local and international
- Representative of Ottawa Hospital Research Institute (OHRI), the largest hospital-based research institute in Ottawa
- Representative of the Children's Hospital Research Institute, the second largest hospital-based research institute in Ottawa

from Health Canada:

- Director General, Health Canada Medical Devices Directorate
- Associate Director, Health Canada Centre for Evaluation of Radiopharmaceuticals and Biotherapeutics
- Medical Devices Director, Health Canada Bureau of Metabolism, Oncology and Reproductive Sciences
- Director General, Health Canada Marketed Health Products Directorate
- Regulatory scientist, Health Canada

A.1.3 International, National and Provincial Programs

International Programs

The **Society for Clinical Trials** is an international interdisciplinary organization that develops and disseminates knowledge about clinical trials and research methods. Their **Clinical Trials Transformation Initiative (CTTI)** seeks to enhance the qualifications of clinical trials investigators in mid to advanced career. This complements very well our proposed program for entry level to early career researchers in clinical trials.

CTTI has the following characteristics for clinical trials:

- quality approach to trial design
- digital health trials
- novel trial designs
- enhanced patient engagement
- support for investigators and sites
- ethics and human research protection

Not surprisingly, the **United States** has a more varied and robust range of education programs in clinical trials. Here is a brief sampling of three of these programs:

- **Johns Hopkins** University Clinical Trials Program, which links together courses in clinical trials, epidemiology, public health, research ethics, biostatistics, data management, pharmacology and regulatory affairs; clinical trials courses include, among others:

- principles of epidemiology
 - epidemiologic inference in public health
 - introduction to clinical trials
 - design of epidemiological studies
 - clinical trials: procedures, design and interpretation of results
 - data management in clinical trials
 - clinical trials management
 - electives: ethics, statistical reasoning in public health, biostatistics in medical product regulation, vaccine development, community clinical trials, cluster randomized trials, Good Clinical Practice, systematic reviews, etc.
- **Harvard** University's Master of Medical Sciences in Clinical Investigation Program which includes a year-long series of courses on how clinical trials are conceived, funded, developed, conducted and closed out; key topics include different trial designs, trials in different settings (e.g.- adaptive, point-of-care, pragmatic designs) statistical monitoring of trials, safety issues, secondary analysis of clinical trial data, committee organization and management, advanced ethics, post-marketing surveillance and write-ups for publication. Practical examples mixed with theory are emphasized.
 - **University of Alabama**, whose Center for Clinical and Translational Science has a series of education programs under the umbrella of a 'Clinical Trials Lifecycle' approach; the Lifecycle has five stages (i.e.- start-up, implementation, reporting/publishing, closeout, education/training) along with clinical activities and educational programs associated with each stage (e.g.- implementation stage: recruitment, retention, monitoring, coordination, data collection, tools)

The **University of Oxford** in the United Kingdom offers a virtual two-year MSc in Clinical Trials. This program includes two short residential periods to allow students to meet teaching staff and to provide face-to-face teaching, discussion time and leadership training. The eight compulsory modules of this program are:

- Introduction to principles of randomised trials
- Design to implementation
- Regulatory and ethical framework
- Data management and analysis
- Big data and new technologies
- Health economics and patient outcome measures
- Different types of trial in particular populations
- Meta-analyses and results reporting

National Programs

In our search of other comparable programs we were more specific in Ontario than elsewhere. However, we did not find other comparable Canadian programs outside of Ontario.

The **Network of Networks (N2)** is a not-for-profit organization and an alliance of Canadian research networks and organizations working to enhance national clinical research capability and capacity. Among its education initiatives is promoting the CITI training programs across Canada.

The regulatory mechanism for approving health care products which have undergone clinical trials is situated at **Health Canada (HC)** in Ottawa near Carleton University. A good relationship between the Carleton's Department of Health Sciences and Health Canada already exists. This will serve as a springboard for an enhanced relationship in the new program, particularly for the regulatory affairs components.

The role of HC is to ensure that health products are safe, effective and of high quality. HC must be satisfied that product benefits outweigh their risks, that evidence supports their health claims and that risks and uncertainties can be managed. HC's role includes approving health products, monitoring safety and quality, creating policies and standards, and promoting and enforcing compliance and collaborating with partners.

Each application for a health product (drug, device or otherwise) is reviewed by HC's Health Products and Food Branch to assess the safety, efficacy and quality of that product. The clinical trials application presents information on the drug's dose, effectiveness and safety in humans. The hope is that the drug has therapeutic value that outweighs the risks associated with its use.

In keeping with its Strategic Plan for 2019-2022, the mission of HC's Regulatory Operations and Enforcement Branch is to protect the population at large from health risks associated with products, substances and the environment. This is accomplished through delivering and conducting compliance and enforcement activities and complementary scientific programs.

The underpinning of HC's Clinical Trial Inspection Program is the **GUI-0100 Guidance Document-Part C, Division 5 of the Food and Drug Regulations "Drugs for Clinical Trials involving Human Subjects"**. Subject to legislative changes, HC is involved in the modernization of clinical trials in Canada. HC also provides education to organizations involved in clinical trials on topics such as strategies for preparing clinical trials applications, best practices in applications and how to prepare submissions.

Located in Ottawa, the Canada Clinical Trials Coordinating Centre (CCTCC), was created in 2014 to promote Canada as a leading destination for clinical trials. The CCTCC facilitated meetings of provincial clinical trials organizations and issued a strategic plan in 2018. The CCTCC helped establish linkages for its member hospitals, research institutes and government agencies, etc. with research training programs as illustrated in the Sunnybrook Research Institute example that follows in the Ontario Clinical Trials Education section below.

Ontario Clinical Trials Profile

The 2019-20 Annual Report and website of **Clinical Trials Ontario** (CTO) provides a wealth of information regarding the landscape for clinical trials in the province. The following profile for Ontario shows significant growth in clinical trials in recent years:

Prominent Position

- 3,900+ active clinical trials in Ontario
- 65% of all clinical trials in Canada; largest Canadian jurisdiction by far
- 7th largest jurisdiction for clinical trials in North America

Vibrant Clinical Trials Network

- 110 participating hospitals and research sites
- 120+ participating pharmaceutical and medical device companies
- 1,550+ clinical trials studies in CTO stream, including 115 COVID studies

Employment Hub

- 18,000 researchers and staff employed in clinical research
- 2,200+ biotechnology, medical device and digital health companies
- 30,000+ jobs in drugs and pharmaceuticals, 26,000+ jobs in medical devices and 20,000+ employed researchers/staff in Ontario academic hospitals

Industry's Choice

- \$410 million industry investment in Ontario clinical trials (2017)
- 3 times as many industry-sponsored Ontario trials in 2017 vs. 2012
- 49% of Canada's total pharmaceutical and medical device R&D investment in Ontario
- 40% of Ontario's active clinical trials are industry-sponsored

Global Leadership

- in cancer, focused ultrasound, cardiovascular, regenerative medicine, infectious diseases and more

The statistics above clearly show that Ontario has a thriving health and life sciences sector.

Ontario Clinical Trials Education

As stated above, **no Master's level degree program in clinical trials now exists in an Ontario university**. However, there are some Master's level programs and others which offer lectures,

courses, certificates, and in one case a diploma, in clinical trials. The most prominent of these are programs at the University of Toronto, Western University, and the University of Ottawa.

The Dalla Lana School of Public Health at the **University of Toronto** has a **Clinical Epidemiology and Health Care Research (CEHCR) Program** that offers MSc and PhD programs. Students are trained in research methods that enable them to design research programs. One goal of their MSc Program is to “conduct clinical trials and medical decision science and translate this knowledge to the point of care and the health care system”.

The CEHCR MSc program has a thesis stream (18-24 months full-time with 6 half courses and thesis) and a non-thesis stream (12-18 months with 10 half courses and 1 or 2 internships). It includes **three clinical trials courses** (i.e. - Controlled Clinical Trials which includes developing and presenting a trial proposal, Pragmatic Issues in Clinical Trials, Advanced Design and Analysis Issues in Clinical Trials), along with related courses in epidemiology and biostatistics.

Admission requirements for the CEHCR MSc program are a B+ average or better during a four-year undergraduate degree, a letter of intent, two letters of reference, relevant research experience and a minimum release of three days per week. More than 80 % of graduates are offered academic positions upon graduation.

Western University offers a **post-graduate Diploma and a Certificate in Clinical Trials Management** (12 months full-time or 24 months part-time) through its Continuing Studies Department. It is comprised of nine courses, in areas such as introduction to trials, organization and monitoring of trials, regulatory, legal and ethical issues, pharmacology and financial aspects, along with a 400-hour practicum. The Certificate Program is for professionals working in clinical research and does not require the practicum. Learning objectives relate to drug development laws and regulations, different types of clinical trial design, safety data and strategies for successful trials, etc.

These Western programs are a useful point of reference for Carleton’s Department of Health Sciences, particularly the two streams and the curriculum. However, Western does not offer a Master Degree program in clinical trials, and is not located near the regulatory arm of Health Canada, like Carleton is.

In April 2020, the University of Ottawa Faculty of Medicine created a 16-20 months Master of Public Health Program in its School of Epidemiology and Public Health. Its four streams are Global Health, Policy, Practice and Risk Assessment. There are 8 compulsory courses (practicum included) and 4 elective courses. No clinical trials courses exist, but the curriculum includes related courses in biostatistics, epidemiology and public health protection. It is likely that clinical trials are referenced in some courses. This program is partnered with the university’s Graduate School of Public and International Affairs.

The University of Ottawa also has an MSc in Health Systems Program at the Telfer School of Management. This 24-month research program has core courses (9 credits), elective courses (9

credits, a thesis (12 credits) and a research internship. Themes include quality of care, health organizations, health informatics and health systems analysis/optimization. There are no courses solely in clinical trials, but references to them in some courses are likely. A package of scholarships / grants for students, and the support of the Telfer Research Office are attractive assets. Students can take electives at Carleton.

McMaster University has an open enrolment Applied Clinical Research Program among its continuing education offerings. Program duration is 12 to 20 months. Learning objectives relate in part to clinical trials (e.g.- study and site management), but also to research aspects such as good clinical practices, clinical research protocols, ethical issues, leadership, communication and project management. Graduates are equipped to manage or carry out applied research in a wide range of career opportunities.

In addition to these university education programs involving clinical trials, there are university and college-level programs in research which are not highlighted here. These include Clinical Research Graduate certificates at the University of Toronto and York University, along with Humber, Michener and Seneca Colleges. The Academy of Applied Pharmaceutical Sciences (AAPS), a private college in Toronto, offers a Clinical Research, Drug Safety and Pharmacovigilance Program.

The Sunnybrook Research Institute requires training for researchers who participate in its interventional research trials. The target group for this training is largely researchers beyond entry level who are already working in clinical trials or about to do so. This training includes one of the following on-line programs:

- Tutorial for Tri-Canada Policy Statement (TCPS2)
- Basic Biomedical: CITI Canada (recommended by CCTCC (Ottawa))
- Social and Behavioural Research: CITI Canada

The following components are part of these training programs:

- Interventional Clinical Trials for Humans: Good Clinical Practices (ICH-GCP)
- Network of Networks: Standard Operating Procedures (N2-SOPs)
- Health Canada Division 5: Drugs for Clinical Trials involving Human Participants

A.2 Mission and Strategic Directions

The **Strategic Mandate Agreement (SMA)** is a bilateral agreement between the Ministry of Colleges and Universities and Carleton University. The 2020-2025 SMA provides metrics and links Carleton's mission and strategic goals to Ontario's priority areas. These include incentivizing universities to invest in initiatives that result in positive economic outcomes. More

specifically, among Ontario's priorities are skills and job outcomes, employment rates and experiential learning. As described in detail in Section A.1.3 above, these are hallmarks of the rapidly expanding clinical trials sector in Ontario, which awaits our graduates. They will also be key outcomes of the new program, which we will measure regularly.

An Aspiration Statement of the 2020-2025 **Strategic Integrated Plan (SIP)** of Carleton University is "We will work to enhance the wellness of our people and our communities, and to play a leadership role in the wellness of our country and planet." The new program is linked to this statement insofar as wellness is concerned. Clinical trials are a key contributor to advancing health care and dealing with an extensive range of diseases, each of which advances the wellness of the population.

The program will also respect and operationalize Carleton's **Coordinated Accessibility Strategy**. This includes the purpose, vision and values of the strategy, along with the education and training area of focus therein. Already, the program has been positively reviewed for accessibility requirements by the Office of the Vice-Provost and Associate Vice-President (Academic). See Section B.4 in this regard.

Clinical trials of healthcare products have long been in place. They test research hypotheses for drugs and other health care products in the real world in order to improve people's health and well-being. Never has this been as important as in the more than two years of the COVID-19 pandemic. During this time, the development of vaccines via clinical trials at many pharmaceutical companies proceeded efficaciously at lightning speed, to address one of the most serious public health threats to the world in the past century. Government regulators in Canada, the USA and beyond worked around the clock to approve the resultant vaccines for the global population and to help keep the pandemic under control.

This unprecedented situation has taught us many valuable lessons, one of which is the need for a highly trained and innovative workforce to conduct clinical trials. In the future when COVID has dissipated there will be other public health issues requiring clinical trials, not to mention the many other trials for drugs and medical devices under way in modern medicine. Since there are no masters degree program for clinical trials in Ontario, an opportunity exists for Carleton University to develop one in Ottawa where Health Canada and its regulatory services are situated.

Research into the social determinants of health shows that lower health status is linked to lesser socio-demographic conditions. Consistent with Recommendation SA1 of Carleton's Equity, Diversity and Inclusion (EDI) Plan, the curriculum for the new MSC program will include courses that deal with the needs of communities including those with special needs related to race, gender and accessibility. In addition, all courses in the program will need to incorporate EDI philosophy and approaches in their syllabi.

A.3 Relationship to Other Academic Programs at Carleton

We anticipate minimal impact on other programs in terms of overlap in content or target clientele. We expect to see a small, positive impact in graduate course enrolments in Health Sciences and our sister units. Our MSc ClinTrReg students, having a broad background in science, engineering, nursing, community health sciences, or computer science, will contribute a unique perspective to topics covered in classes offered by sister units – this should enrich student experience in general.

Because of the interdisciplinary nature of clinical trials, the new program will benefit from the involvement of other Carleton departments in addition to Health Sciences. How each will participate is being explored by the Chair of the Department of Health Sciences by determining if they have a potential interest and by obtaining their commitment to be involved.

In November 2021, the Chair began to consult selected Carleton departments to determine their potential interest in participating in the new program. To date he has spoken with representatives of Chemistry, Mathematics and Statistics, Biology, Business Administration, Public Policy and Administration and Journalism and Communications. Informally, he has shared a draft of the Executive Summary of the new program with some of these departments.

Each department expressed potential interest in participating. Some identified courses that could be made available as electives to students of the new program, should there be adequate space in these courses.

As proposed, the new program draws on the expertise and interest within Carleton’s academic community. The following Departments expressed interest in participating in the program and provided letters of support:

Faculty	Department / School / Program
Science	Mathematics and Statistics Biology Chemistry
Public Affairs	Public Policy and Administration

However, as the program matures and grows, we envision expanding the academic partners beyond these. Looking more broadly at the potential future **academic partners at Carleton** who might offer courses to the new program yields the following list:

Proposed Academic Partners

Faculty	Department / School / Program
	Neuroscience Earth Sciences Food Sciences
Public Affairs	Journalism and Communications
Engineering and Design	Engineering Information Technology Management
Sprott School of Business	Master of Business Administration Master of Science in Management

Similarly, At the **University of Ottawa**, **future partners** include:

Faculty	Department / School / Program
Medicine	Master of Public Health
Telfer School of Management	Master of Science Health Systems
Health Sciences	various programs

Partners could offer some of their existing courses to the curriculum of the new program (as electives), teach some of our courses, open their courses to our students, encourage some of their students to take our courses and/or supervise practicums. Our new program will reciprocate in kind with the programs of these partners.

We have obtained letters of support from the following units:

- Dr. David Amundsen, Interim Director, School of Mathematics and Statistics
- Dr. Jennifer Stewart, Director, School of Public Policy and Administration
- Dr. Robert Burk, Chair, Department of Chemistry
- Dr. Bruce McKay, Chair, Department of Biology

B. Program Learning Outcomes and Assessment

B.1 Program Learning Outcomes and Degree Level Expectations

The goals of the new program (see Section A.1) provides the framework for developing program learning outcomes. The skills, knowledge, competencies and/or behaviours that students will have upon graduating become the learning goals of the program. Reflecting upon this, the Working Group developed six learning outcomes for the new program overall.

Table B.1 Program Learning Outcomes

By the end of this program, students will be able:

Program Learning Outcomes	
1.	to discuss the purpose and use of clinical trials in the development of drugs and other health products
2.	to recognize and assess ethical issues involved in the design, approval and conduct of clinical trials
3.	to identify and appraise government regulations and legal frameworks for clinical trials in Canada, the USA and beyond
4.	to demonstrate practical understanding of the use and effectiveness of types of clinical trial design to meet the goals of different clinical trials
5.	to describe the data requirements and databases of clinical trials and how findings are analyzed and interpreted
6.	to be able to operationalize clinical trials across different sites and contribute value to their success

The Council of Ontario Universities (COU) has established a framework of Degree Level Expectations (DLEs) that specify what students should know, and be able to do, after successfully completing a degree program.

There are seven DLE for masters-level programs at Carleton University, six of which (DLE 1 to 6) are established by the COU and one (DLE 7 Experiential Learning) by Carleton:

<i>Table B.2 Degree Level Expectations and Requirements</i>	
DLE Category	Key Requirements
1. Depth and Breadth of Knowledge	- systematic understanding inside and outside of field - critical awareness of problems and insights
2. Research and Scholarship	- comprehension of research techniques - critical evaluation of research/scholarship - treatment of complex issues as per principles/techniques - development and support of written argument or

	- originality in application of knowledge
3. Level of Application of Knowledge	- application of existing knowledge to critical analysis of a new question, problem or issue
4. Professional Capacity/Autonomy	- qualities and transferable skills for employment - intellectual independence for continuing professional development - ethical behaviour re academic integrity and conduct of research - appreciation of broader implications of applying knowledge
5. Level of Communication Skills	- ability to communicate ideas, issues and conclusions clearly
6. Awareness of Limits of Knowledge	- cognizance of knowledge complexity and potential contribution of other interpretations, methods and disciplines
7. Experiential Learning (Carleton DLE requirement)	- effective use of experiential learning to explain and critique concepts and theories - ability to reflect and self-evaluate to demonstrate learning growth and development - ability to communicate knowledge, skills and information effectively for a target audience, while connecting between content and methods of communication

In order to determine how well the learning outcomes conform to the provincial DLE for graduate programs, the Working Group conducted the mapping exercise in Table B.3 below. The result is that each learning outcome relates to at least four DLE and that each DLE is associated at least three times as with a learning outcome. This indicates a good fit between what students learn in the program and the provincial requirements for graduate programs.

Table B.3 Learning Outcomes and Degree Level Expectations

Learning Outcomes	Degree Level Expectations Met
1. to discuss the purpose and use of clinical trials in the development of drugs and other health products	1,2,6,7
2. to recognize and assess ethical issues involved in the design, approval and conduct of clinical trials	1,2,4,6,7
3. to identify and appraise government regulations and legal frameworks for clinical trials in Canada, the US and beyond	1,3,4,5,7

4. to demonstrate practical understanding of the use and effectiveness of types of clinical trial design to meet the goals of different clinical trials	1,3,4,5
5. to describe the data requirements and data bases of clinical trials and how findings are analyzed and interpreted	1,2,5,7
6. to be able to operationalize clinical trials across different sites and contribute value to their success	3,5,6,7

B.2 Program Structure and Curriculum Map

The Department of Health Sciences will administer the program and offer all required and some elective courses, through core faculty and contract instructors. Other Carleton departments, such as Mathematics and Statistics, Biology, Chemistry, and Public Affairs Administration, will offer elective courses.

B.2.1 Preliminary Curriculum

The program has five components. Pre/Early-Program Requirements component consists of statistical and clinical trials primer courses, which are non-credit. The Foundation of Clinical Trials and Regulatory Affairs components include courses involve these two key areas of the program. The Organization of Clinical Trials component deals with the management aspects of clinical trials. Finally, the Practicum component is a capstone course where students apply the knowledge and skills from the program in the field in real-world settings.

Here are the courses:

4.0 credits in Required Courses:

- 1. Pre/Early-Program Requirements (0.0 credits, on-line, completed in first 2 weeks of the first semester, possibly started before entry)**

HLTH 5101 [0 credit] Statistical Software and Biostatistics Primer

This is a 0-credit course designed to expose/recall students to elementary biostatistics and some statistical software. Fundamentals of research design and biostatistics will be illustrated. Statistical summaries and concepts commonly used in health-related research will be introduced.

HLTH 5811 [0 credit] Clinical Trials Primer (new course)

This is a 0-credit course designed to expose students to the vast area of clinical trials of drugs and devices, and principles of informed consent, regulatory requirements, rigorous documentation, analysis, and reporting. Students will also work on certificates in biomedical ethics, good clinical practice, and others, e.g., from CITI Canada.

2. Foundation of Clinical Trials (2.0 credits)

HLTH 5812 [0.5 credit]

Clinical Trials 1: Introduction (new course)

Principles and fundamentals of trials of health products (drugs and devices) will be stressed. A discussion of the different phases and types of clinical trials and different regulatory agencies involved will set the stage while differences between investigator and sponsor-initiated trials will also be discussed. The use of randomization, blinding, reporting and registration regulatory requirements, as well as the importance of rigorous documentation, e.g., protocol and investigator's brochure will be introduced. Some common clinical trial designs (ascending dose, single-arm trials, parallel arms, crossover) will be discussed.

HLTH 5813 [0.5 credit]

Clinical Trials 2 (new course)

Other trial designs will be covered including factorial designs, adaptive designs, N of 1 trials, etc. Recruitment of patients, data collection and quality control, interim monitoring, audits, inspections, closeout, reporting and interpreting, and timelines, as well as meta-analysis from a product program will be covered.

Includes a four to six-week placement for experiential learning at a clinical site, regulatory site, CRO, or similar institution involved in clinical trials.

HLTH 5814 [0.5 credit]

Assessment and Patient Safety for Clinical Trials (new course)

The importance of efficacy and safety measurements, and biosamples collected during and after trials will be introduced. Good Clinical practice, good medical practice, and good laboratory practice fundamentals will be discussed. Considerations needed for special populations will be provided (e.g., pediatrics vs adults). The use of pharmacokinetics and pharmacodynamics analysis and measurements will be introduced in the context of patient safety while the concepts of pharmacovigilance, drug mechanism of action, reporting of harm, Data and Safety Monitoring Board, safety monitoring report, and drug dispensation requirements will be discussed.

HLTH 5815 [0.5 credit]

Principles of Data Management and Analysis in Clinical Trials (new course)

This is a 0.5-credit course covering the principles of analysis. Some study designs like superiority and noninferiority trials as well as enrichment trials will be briefly covered.

Randomization, biomarkers, endpoints, objectives, estimands, sample size requirements, and random error and bias, requirements of data analysis, multiple testing correction, intent-to-treat vs per-protocol will be discussed. Equipoise and stopping rules for trials, databases and structures for reporting to regulatory agencies, database development and validation, development of statistical analysis plans, and considerations around missing data will also be reviewed.

3. Regulatory Affairs (1.0 credit)

HLTH 5816 [0.5 credit]

Government Regulatory Processes (new course)

Students will review the differences and commonalities in the emphasis of various regulatory agencies (Health Canada, US Food and Drug Administration, European Medicines Agency, Pharmaceuticals and Medical Devices Agency) when reviewing health products. A discussion of harmonization efforts of national drug approval agencies, and timelines around engagement and deliverables for an Investigational New Drug Application will be explored. Labeling, accelerated approval, breakthrough designation, orphan drugs, and biologics licence application will also be discussed.

HLTH 5817 [0.5 credit]

Government, Research Organizations and Industry (new course)

This is a 0.5-credit course focusing on regulatory requirements of pharmaceutical companies, contracting research organizations, and communication with regulatory agencies. This will cover negotiation and collaboration between sectors, incentives provided by regulatory agencies like FDA priority review vouchers, project management within and between organizations, project plan development, manufacturing and distribution, phase IV post-marketing and continued monitoring, pharmacovigilance, and post-marketing changes.

4. Organization of Clinical Trials (1.0 credit)

HLTH 5818 [0.5 credit]

Ethics, Community and Patient Engagement (new course)

This is a 0.5 credit course covering patient engagement. Equipoise, informed consent, Institutional Review Board/Research Ethics Board, monitoring, reporting/release of data in the literature and return of trial data to patients, compassionate/expanded access, patient liaisons and advocates, as well as engaging with patient foundations will be covered.

Engaging with indigenous communities, special populations and other social considerations of trials will be discussed. Finally, considerations around translational research, generics, biosimilars, and labeling will be reviewed.

HLTH 5819 [0.5 credit]

Clinical Trials Protocols, Operations and Management (new course)

Documentation requirements of clinical trials in the form of clinical protocols, electronic case report forms and guidelines, data management plan, monitoring plan, pharmacy manual, standard operating procedures, and manual of operating procedures will be covered. Delegation of authority logs, training logs, and user access logs will be introduced. Finally, this course will include a module on leadership, communications, logistics, budgeting, contracting, planning and preparation, partnerships, site and inter-site management.

5. End of Program

HLTH 5820 [1.5 credit] Clinical Trials Practicum (new course)

This is a 1.5 capstone credit course required for students **in the Practicum pathway only**. This course involves experiential learning at a clinical site, regulatory site, CRO, or similar institution involved in clinical trials. Students will demonstrate to partners/preceptors the knowledge and skills gained from the graduate program, and on completion, will present on their experience, efforts, and lessons learned.

One Elective Course [0.5 credit] from among:

HLTH 5150 Statistics for Health Sciences

HLTH 5151 Principles of Epidemiology

HLTH 5350 New Health Technologies

HLTH 5700 Special Topics in Biostatistics and Epidemiology

HLTH 5704 Special Topics in the Science of Disease

STAT 5602 Analysis of Categorical Data

STAT 5603 Reliability and Survival Analysis

BIOC 4708 Principles of Toxicology

CHEM 4305 Environmental Chemistry and Toxicology

To graduate from the new program, students must have the following credits:

Course Type	Practicum Pathway	Non-Practicum Pathway
Required		
Number of Courses	9	8
Number of Credits	5.5	4.0

Elective		
Number of Courses	1	1
Number of Credits	0.5	0.5
Total		
Number of Courses	10	9
Number of Credits	6.0	4.5

Full-time students with relevant work experience in **Degree without practicum** pathway will complete the program in 12 months over three terms. Students in **Degree with practicum** pathway who require completion of a practicum will complete the program in 16 months over four terms. ,The practicums will provide students with professional skills and relevant work experience in the field of clinical trials and will create a pathway for employment. The value of the practicum thus outweighs the time and financial burden of an additional term. Part-time students will complete the program in 20 to 24 months over five to six terms. The longer duration of the part-time program is due to its slower pace (2 courses per term vs. 3 for the full-time program) and individualized course scheduling for part-time students, allowing them to balance work and university demands.

B.2.2 Preliminary Course Schedule

A preliminary version of when courses could be offered is presented in the Table B.4 below. The terms in which each of the courses could be taught are also identified. This may change later as more detailed program planning is done.

The following assumptions underlie the Course Schedule:

- early program requirements are completed in the fall of year one, and possibly started in the summer of year zero prior to entry;
- the one entry point into the program is in the fall of each year;
- full-time students usually take three courses of 0.5 credits each in any one term;
- part-time students usually take two courses of 0.5 credits each in any one term, but may increase or decrease this amount depending upon their availability;
- full-time and part-time students take courses together;
- required courses are scheduled under the control of the Department of Health Sciences;
- each required course is offered once each academic year;
- scheduling of elective courses by the Department of Health Sciences requires negotiation with other departments for courses they offer;
- for **full-time students** in the practicum pathway, the program has 4 terms (i.e.- fall, winter and summer of year one, and fall of year two); full-time students in the non-practicum pathway have 3 terms, excluding the practicum in the fall of year two
- for **part-time students** in the practicum pathway, the program has 5 or 6 terms (i.e.- fall, winter and spring of year one, along with fall, winter of year two and possibly fall of year three), depending upon the pace at which each student proceeds;

The following preliminary program schedule is for full-time students only. Schedules for part-time students are attuned to their individual needs and have yet to be prepared.

<i>Table B.4 Preliminary Program Schedule (Full-Time)</i>			
Term 0 (2 non-credit courses): Statistics Primer- 1 course Clinical Trials Primer- 1 course		late Summer / first 2 weeks Fall Yr. 1	HLTH 5101 Statistical Software and Biostatistics Primer HLTH 5811 Clinical Trials Primer
Term 1 (3 x 0.5 credit courses): Foundation- 2 courses Regulatory- 1 course		Fall Yr. 1	HLTH 5812 Clinical Trials 1: Introduction HLTH 5814. Assessment and Patient Safety for Clinical Trials HLTH 5816. Government Regulatory Processes.
Term 2 (3 x 0.5 credit courses): Regulatory- 1 course Organization- 1 course Elective- 1 course		Winter Yr.1	HLTH 5817 Government, Research Organizations and Industry HLTH 5819 Clinical Trials Protocols, Operations and Management 1 Elective (Health Sciences or partner department)
Term 3 (3 x 0.5 credit courses): Foundation- 2 courses Organization- 1 course		Summer Yr. 1	HLTH 5813 Clinical Trials 2 (includes 4-6-week placement) HLTH 5815 Principles of Data Management and Analysis in Clinical Trials HLTH 5818 Ethics, Community, and Patient Engagement
Term 4 (1 x 1.5 credit course): Practicum, if applicable		Fall Yr. 2	HLTH 5820 Clinical Trials Practicum

Table B.5 below examines how the five program components and the required courses contribute to meeting the Learning outcomes of the program. Note the levels of delivery for each course, which are coded as I (Introductory), R (Reinforcement) and M (Mastery) to reflect what students will learn in the courses.

<i>Table B.5 Program Curriculum Map Summary</i>					
Program Components	Pre/Early-Program	Foundation	Regulatory	Organization	Practicum
Learning Outcomes					
1. to discuss the purpose and use of clinical trials in the development of drugs and other health products	5811 I Clinical Trial Primer	5812 I Clinical Trials1	5811 I Clinical Trial Primer		
		5813 R, M Clinical Trials2 5814 I Assess/Safety	5812 I Clin. Trials1 5813 R Clin. Trials 2		
2. to recognize and assess ethical issues involved in the design, approval and conduct of clinical trials		5813 I, R Clinical Trials2		5818 I, R Eth Com Pat	5820 M Practicum
		5814 I Assess/Safety			
3. to identify and appraise government regulations and legal frameworks for clinical trials in Canada, the USA and beyond			5816 I, R Gov Reg Pro 5817 I, R Gov Res Ind		5820 M Practicum
4. to demonstrate practical understanding of the use and effectiveness of types of clinical trial design to meet the goals of different clinical trials		5813 R Clinical Trials2 5814 R Assess/ Safety 5815 I Data Mgt Anal	5816 I Gov Reg Pro 5817 I Gov Res Ind	5818 R Eth Com Pat 5819 I, R Pro Ops Mgt	5820 M Practicum
5. to describe the data requirements and data bases of clinical trials and how	5101 I Statistical Software and Biostatistics Primer	5813 I Clinical Trials2 5814 R Assess/Safety 5815 R Data Mgt Anal	5816 R Gov Reg Pro		5820 M Practicum

findings are analyzed and interpreted					
6. to be able to operationalize clinical trials across different sites and contribute value to their success		5813 I Clinical Trials2 5814 R Assess/Safety	5816 R Gov Reg Pro 5817 I, R Gov Res Ind	5818 R Eth Com Pat 5819 I, R Pro Ops Mgt	5820 M Practicum

Level of delivery of each program component related to the particular learning outcome: I = Introductory; R = Reinforcement; M = Mastery (relevant to the expected outcome at the degree level).

B.3 Program Learning Outcomes Assessment Plan

Because the MSC Clinical Trials and Regulatory Affairs is a new program there needs to be enough time for it to mature, during which time progress is actively monitored regularly. The Graduate Program Committee will be charged with this responsibility, as noted in Section C.3.

We are considering two options for assessment points in the Program Outcomes Assessment Plan. Each option provides for outcomes to be measured at least the required two times during the seven-year period between cyclical reviews of the program as a whole.

- 1. Assess two learning outcomes each year
Assuming the program starts in 2024-25, related learning outcomes will be assessed at the end of the following academic years:

- 2024-25 Learning Outcomes 1 (clinical trials) and 3 (regulatory / legal)
- 2025-26 Learning Outcomes 4 (trial design) and 5 (data)
- 2026-27 Learning Outcomes 2 (ethics) and 6 (operations)
- 2027-28 Learning Outcomes 1 and 3
- 2028-29 Learning Outcomes 4 and 5
- 2029-30 Learning Outcomes 2 and 6
- 2030-31 Cyclical Review

or

- 2. Assess full program at the end of each two-year cycle

- 2025-26 all Learning Outcomes
- 2027-28 all Learning Outcomes
- 2029-30 all Learning Outcomes
- 2030-31 Cyclical Review

Our preference is for the second approach. It allows for assessment of the program as a whole three times during the seven-year period. More importantly it does not involve review of only two outcomes at a time, which is a somewhat artificial distinction and may not yield the most

meaningful results. However, the Office of the Vice-Provost and Associate Vice-President (Academic) expressed a preference for the first approach, based on their experience with the review of learning outcomes by other Carleton programs. Therefore, we will wait until year zero of the program before choosing the final approach.

B.3.2 Approach to Assessment

Our approach is informed by the recent experience of the Health Science Technology and Policy (HSTP) Program. In 2019 the Department held an HSTP-focused retreat with faculty, external partners and stakeholders. The purpose of the retreat was to assess the current status of the program and initiate development of a set of assessment indicators for each learning outcome. These assessment indicators were formulated by consensus of HSTP program members, in consultation with students and the HSTP Coordinator and Graduate Advisor.

For the new program we will hold a retreat in 2023-24, which is year zero (planning and preparation) of the program. It will be done later in that year, after other activities such as faculty recruitment have taken place and when course syllabi are being prepared. Assessment indicators for each learning outcome will be formulated at the retreat and thereafter, prior to the 2024-25 inception of the program.

Evaluation techniques proposed by instructors in specific courses will be reviewed to assess their suitability in meeting the assessment indicators. In some cases, proposed evaluation techniques may be modified to better assess whether a learning outcome was achieved. Consensus between course instructors and program faculty will be required to finalize the assessment methodology.

At the chosen assessment points (see Section B.3.1) meetings will be held in summer. To discuss and communicate the assessment results for a given academic year. In addition, a full day program retreat will be held every five years. All who are essential to the success of the program will be invited to participate in the annual meetings and retreats: faculty, coordinator, contract instructors, department chair, external researchers, stakeholders, and students.

B.3.3 Method of Assessment

The method to be used in the Program Outcomes Assessment Plan will be feature the same capabilities as D2L Brightspace, Carleton University's Learning Management System. One of the architects of the new program has experience with Exam Soft and another faculty member is currently assessing the department's learning management needs, so we want to see the results of this initiative before committing to a particular method.

Here are the assessment features we seek in a learning management system:

- aggregate performance of the student class
- comparison of aggregate performance between student cohorts
- aggregate performance of the class on each learning outcome

- aggregate progression of the class on each learning outcome
- performance of each student
- progression of each student overall
- progression of each student on each learning outcome
- inclusion of individual and group performance measures

B.3.4 Action Plan

When weaknesses in achieving a learning outcome are identified, the curriculum will be reviewed by program members as a group to pinpoint root causes. Modifications to the curriculum or course content may be needed to ensure that the knowledge, skills, and competencies in the learning outcomes are properly integrated into the program.

The results of each assessment of learning outcomes will be summarized in an action plan for the learning outcomes assessed and for the entire program. Then the impact of any resultant changes to courses will be identified. The May-August period each year will be used by faculty and staff to implement program and course improvements in time for the next academic year.

B.4 Program Essential Requirements

PREAMBLE

Program essential requirements are defined by the Ontario Human Rights Commission as “the knowledge and skills that must be acquired or demonstrated in order for a student to successfully meet the learning objectives of that... program.” The program essential requirements are components that contribute to the achievement of the learning outcomes of the program.

Excerpt from the Ontario Human Rights Commission report: The opportunity to succeed: Achieving barrier-free education for students with disabilities - Post-secondary education

Appropriate accommodations should not lead to lowered standards or outcomes: rather, an appropriate accommodation will enable the student to successfully meet the essential requirements of the program, with no alteration in standards or outcomes, although the manner in which the student demonstrates mastery, knowledge and skills may be altered.

The aim of accommodation in a post-secondary educational context is to provide equal opportunities to all students to enjoy the same level of benefits and privileges and meet the requirements for acquiring an education. Based on these principles, an accommodation will be considered appropriate where it will result in equal opportunity to attain the same level of performance, or enjoy the same level of benefits and privileges experienced by others, or if it is proposed or adopted for the purpose of achieving equal opportunity and meets the individual’s disability-related needs. - See more at:

<http://www.ohrc.on.ca/en/opportunity-succeed-achieving-barrier-free-education-students-disabilities>

Paul Menton Centre

The Paul Menton Centre is responsible for assessing requests for academic accommodation of students with disabilities through evaluations that are carried out on an individual basis, in accordance with human rights legislation and University policy, and with the support of relevant, professional/medical

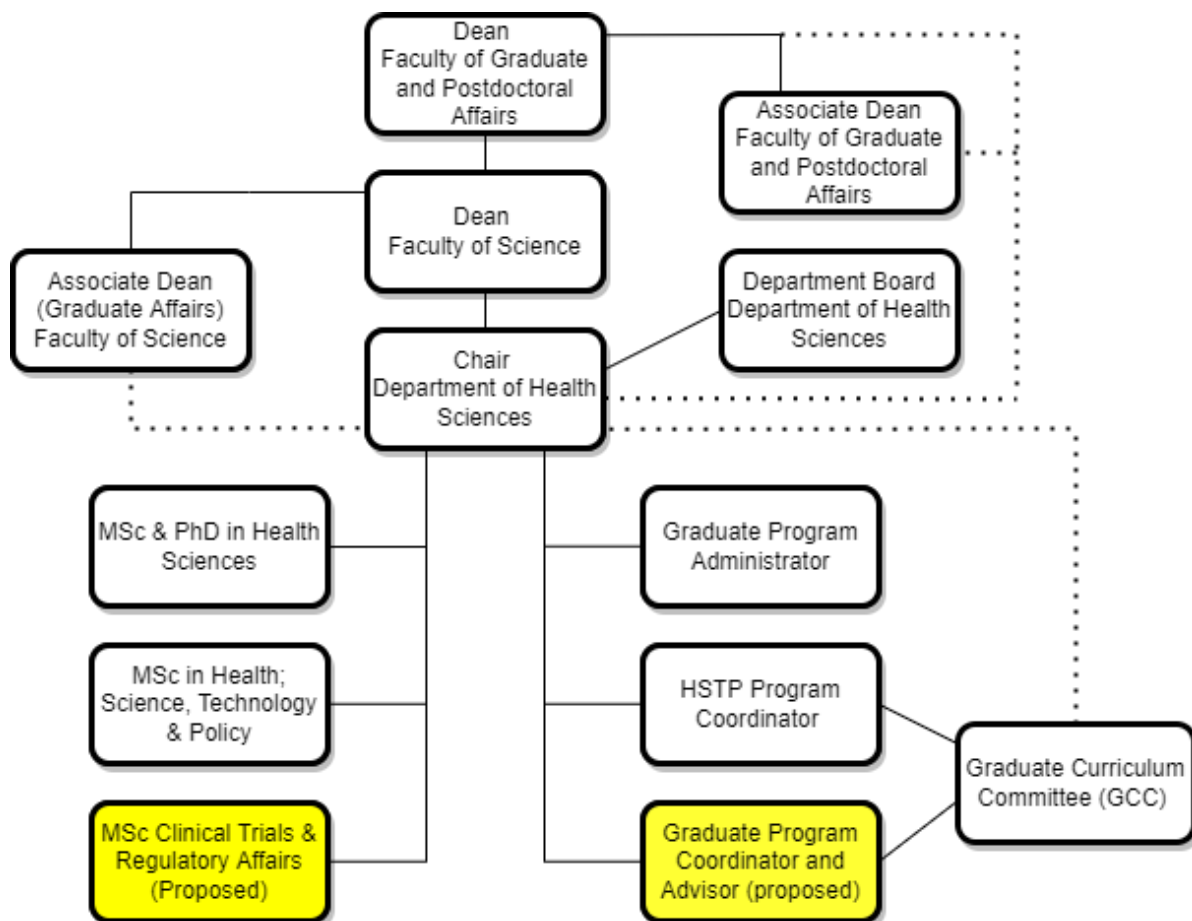
documentation. Students will only receive academic accommodation if the functional limitations of their disability impact directly on their academic performance.

The program essential requirements of the M.Sc Clinical Trials and Affairs program have been reviewed in consultation with the Paul Menton Centre to ensure capacity for reasonable academic accommodation of students with disabilities, in accordance with the Carleton University Academic Accommodation Policy. The learning outcomes can be attained as outlined in the program description with the use of appropriate academic accommodations.

C. Governance and Management

C.1 Governance

The new program will be situated in the Department of Health Sciences, along with three other existing graduate programs- MSc Research, PhD Research and MSc Health: Science, Technology and Policy (see organization chart below).



The Department of Health Sciences is headed by a Chair, who has purview over all graduate programs of the Department. The Chair reports to the Dean, Faculty of Science, who in turn reports to the Dean, Faculty of Graduate and Postdoctoral Affairs (FGPA). The Chair has a functional relationship with the Dean FGPA, along with the Associate Deans of FGPA and the Faculty of Science. The Department Board, consisting of all core faculty of the Department, and a student representative, provides strategic oversight to the Chair on the orientation and direction of the program.

C.2 Management

Reporting to the Chair, Department of Health Sciences are the following positions:

- Graduate Program Administrator
 - administers the operation of the three graduate programs of the Department (see above)
 - oversees the progression of students in the Health Sciences graduate programs
 - reporting to the Chair and Graduate Program Coordinator and Advisor

- Program Coordinator and Advisor (new hire, professor)
 - liaises with external stakeholders to identify, formulate and coordinate practicums for MSc Program students, in collaboration with faculty advisors
 - this position will also be responsible for managing the practicum in the new program (broadened from existing responsibility for HSTP Program)
 - chairs the Graduate Program Committee (see Section C.3 below), develops program guidelines, organizes student orientation and the research practicum presentation event
 - responsible for coordinating elective course offerings, advising students on their academic needs and other related matters

A mechanism for students to participate in management of the program will be developed in year zero (preparatory phase) of the program. Broad-based student feedback will be solicited through formal and informal surveys every year, to be incorporated into ongoing development and improvement of the program.

C.3 Graduate Curriculum Committee

The Graduate Curriculum Committee (GCC) already exist in the Department of Health Sciences and provides oversight and advice to the Chair regarding all graduate programs of the Department, and is governed by the Departmental terms of reference. The composition of the GCC shall reflect the broad areas of research represented within the department as much as possible. Thus, there shall be representation between the Chair, Program Coordinators, and the research faculty from both “wet-lab” and population-based researchers, with at least one

member from each of the two areas It meets regularly at least four times per year. The duties of the GCC are:

- to evaluate and select candidates for admission from among applicants to the program (see section E.1 Admission Requirements)
- to develop and regularly review the program and the curriculum
- to develop and assess achievement of the learning outcomes of the program
- to review the overall performance of the program at regular intervals, particularly in the first three years of its existence
- to oversee the province's cyclical review of the program every seven years
- to propose strategic and operational changes to the program as necessary

Once proposals for program and curriculum changes are developed by the Graduate Curriculum Committee the Chair forwards them to the Programs and Planning Committee of the Faculty of Graduate and Postdoctoral Affairs for their approval. Consultation with the Dean of the Faculty of Science also occurs in this process.

A subcommittee of the GCC, the Graduate Admissions Committee, meets from November to April or May each year to review applications for the new program and to select successful candidates. The three or four members of the Admissions Committee may review admission applications on-line. More details on the admission process are found in Section E.1.

D. Faculty

D.1 Faculty Appointed to the Program

The Faculty of the Department Health Sciences (Table D.1) is composed of 11 tenured and tenure-track professors, 2 instructors, 6 adjunct professors, and 11 cross-appointed professors involved in graduate education. Major fields of study range from the molecular and genetic study of human diseases to population-based research of health care system inequities to biomarkers, health outcomes, and clinical trials. Representation is well balanced across these disciplines to allow the delivery of a high caliber program. The gender profile of the faculty is approximately half female and half male.

A key faculty member is a professor specializing in clinical trials, biostatistics and informatics who joined the Department in 2021. He has clinical trials experience from his previous academic position with the School of Pharmacy and Pharmaceutical Sciences at the State University of New York (Binghamton). An adjunct professor appointed to the Department in 2016 has spent much of his career at Health Canada, where he acquired significant experience in regulatory affairs programs. The Department has a very good relationship overall with Health Canada, which includes the hiring of contract instructors there.

The faculty of the new program will teach the required courses and some elective courses.

Faculty from sister units (Chemistry, Mathematics and Statics) will teach some of the electives. Potential faculty members for many of the required courses of the new program are listed in Table D.2.

Table D.1 Core Faculty Listing

Faculty Name	Rank	Appointment Status	Percentage Appointment	Supervision Privileges*	Areas of Specialization/Field Affiliations
Edana Cassol	Associate	Tenured	100	D	Immunology and Infectious Disease
Kristin Connor	Associate	Tenured	100	D	Developmental Origins of Health and Disease
Utkarsh Dang	Assistant	Preliminary	100	CD	Biostatistics and bioinformatics, clinical trials
Francine Darroch	Assistant	Preliminary	100	CD	Community-Based Participatory Research, Social and Cultural Determinants of Health, Gender and Health
Sonia Gulati	Instructor II	Confirmed	100	CDM	Disability, Global Health, Children & Youth with Disabilities, and Community-Based Rehabilitation (CBR)
Martin Holcik	Professor	Tenured	100	D	Protein synthesis in health and disease, rare genetics diseases
Menno Oudhoff	Assistant	Preliminary	100	CD	Host-pathogen interactions
Joerg Overhage	Associate	Tenured	100	D	Molecular Microbiology and Infectious Disease
Paul Peters	Associate	Tenured	100	D	Population Health; Rural Health; Spatial Data Analysis; Health Geography
Laura Pickell	Instructor I	Preliminary	100	CDM	Life Sciences Education, Genetics and Molecular Biology, Pathophysiology
Renate Ysseldyk	Associate	Tenured	100	D	Social and Health Psychology

*D=full privileges; M=full privileges at master's level only; CD=co-supervision privileges at doctoral level, full privileges at master's level; CDM=co-supervision privileges only at both doctoral and master's level; CM=co-supervision privileges at master's level, no privileges at doctoral level

Table D.2. Faculty

Course	Name	Position / Area	Organization
HLTH 5812 Clinical Trials 1	New Faculty Hire	Health Sciences	Carleton University
HLTH 5813 Clinical Trials 2	Utkarsh Dang Professor	Health Sciences	Carleton University
HLTH 5814 Assessment and Patient Safety for Clinical Trials	New Faculty Hire	Health Sciences	Carleton University
HLTH 5815 Prin. Data Mgt. Anal.	Utkarsh Dang Professor		External
HLTH 5816 Gov. Reg. Processes	Contract Instructor		External
HLTH 5817 Gov. Res. Org. Industry	Contract Instructor		External
HLTH 5818 Ethics, Community Patient Engagement	Contract Instructor		External
HLTH 5819 Protocols, Ops. Mgt.	Contract Instructor		External

D.2 Faculty Research Funding

The faculty members are active researchers in their respective disciplines. As summarized in the Faculty Research Funding table they have been funded across the full spectrum of the Tri-Council (i.e., NSERC, SSHRC, and CIHR), including a previous CIHR Tier II Canada Research Chair, and other (NIH, DoD, etc) funding sources. Many of the core faculty are actively involved in clinical trials research, and are keen to increase this presence through the new program. The involvement in the new program of other departments in the Faculty of Science, as mentioned above, would strengthen this profile since they too participate in clinical trials research.

Our faculty regularly publish their work in high-impact journals and attend national and international conferences, or other community-based forums, to present papers on their ongoing research. This enables them to remain at the cutting edge of health research and integrate their expertise into classroom instruction. Importantly, this also provides an opportunity for direct involvement by students in clinical trials research which also enhances student mentorship. This is evidenced in other Health Sciences programs by student authorships on published peer-reviewed manuscripts, white-papers, conference presentations, and other knowledge mobilization activities. We expect this also to be the case for students in the new program.

Table D.2: Operating Research Funding by Source and Year

Year	Tri-Council	Internal	Canadian	US	International	Other	Grand Total
2018	\$241,041	\$440,681	\$40,000		\$144,883		\$866,605
2019	\$360,098	\$127,800	\$0		\$138,500	\$19,000	\$655,398
2020	\$512,375	\$142,000	\$205,000		\$1,500		\$860,875
2021	\$485,522	\$63,682	\$55,799			\$10,000	\$619,003
2022	\$1,198,780	\$85,000	\$14,000	\$17,573	\$66,067		\$1,959,840
Grand Total	\$2,797,816	\$859,163	\$127,000	\$17,573	\$350,950	\$29,000	\$4,961,721

D.3 Distribution of Thesis Supervision

The new program does not include a thesis. Instead, for Degree students, it features a project practicum in an external organization as a capstone course (see Section 2.2). The practicum includes a major project in which the student assumes a responsible role in an existing clinical trials project of the organization. A senior member of the practicum organization serves as the preceptor for the student and oversees that project. In addition, the faculty member who acts as program coordinator liaises with the student and the organization to ensure that expectations are met by all parties. The result is that the student expends comparable time and effort to that required for a graduate-level thesis.

This ‘triumvirate’ approach was chosen in order to link students, faculty and practicum organizations in experiential clinical trials research having, in many cases, immediate knowledge mobilization impacts. Practicum preceptors may be appointed in the department as adjunct professors. In addition to supervising new program students in practicums, core faculty supervise students in Health Sciences at all levels - Honours thesis, MSc and PhD thesis. Also, some faculty supervise graduate students (MA, MSc and PhD) in other departments.

D.4 Current Teaching Assignments

The vast majority of courses are required and are designed to provide students with necessary knowledge and skills in clinical trials and regulatory affairs. In addition, students take an elective course within or outside the Department of Health Sciences to pursue their individual career interests in more detail. Faculty from sister units (Chemistry, Mathematics and Statics) will teach some of these electives.

Table D.4: Distribution of Teaching Assignments

Name	Courses Taught	Credit Value	2022-23	2021-22	2020-21	Notes
CASSOL, Edana	HLTH 1000 - Fundamentals of Health	0.5	x		x	
Associate Professor	HLTH 3302 - Immunity & Immune-Related Diso	0.5	x			
	Total		1.0		1.0	
CONNOR, Kristin L.	HLTH 3901 - Health Sciences I	0.5		x	x	
Associate Professor	HLTH 3902 - Health Sciences II	0.5			x	
	HLTH 4401 - Maternal & Perinatal Determin	0.5		x	x	
	Total			1.0	1.5	
DANG, Utkarsh Jagmeet	STAT 5900 - Seminar		x			
Assistant Professor	STAT 4504 - Stat Design & Analysis of Exp			x		
	Total		0.5	0.5		
DARROCH, Francine Eileen	HLTH 3403 - Gender and Health			x	x	
Assistant Professor	HLTH 5702 - Special Topics: Social & Behavioural			x	x	
	Total			1.0	1.0	
GULATI, Sonia	HLTH 4909 - Capstone Course Field Placement			xx	xx	
Instructor II	Total			1.0	1.0	
HOLCIK, Martin	HLTH 2002 - Molecular and Cellular Pathology	0.5	xx	xx	x	
Professor	HLTH 3401- Diseases of Childhood	0.5	x	x	x	
	Total		1.5	1.5	1.0	
LOUDHOFF, Menno	HLTH 3404 - Psychosoc and Bio in Hlth	0.5	x			
Assistant Professor	Total		0.5			
OVERHAGE, Joerg	HLTH 2004 Microbiology & Virology	0.5			x	
Associate Professor	HLTH 3903 - Health Sciences III	0.5	x	x	x	

	HLTH 4301 - Pandemics & Infectious Disease	0.5	x	x	x	
	Total		1.0	1.0	1.5	
PETERS, Paul	HLTH 1002 - Health Science Communication			x		
Associate Professor	HLTH 5901 - Advanc Topics in Inter. Hlth.Sc.				x	
	HLTH 5902 - Seminars in Interdisciplinary Health Sciences			x		
	HLTH 6902 - Seminars in Interdisciplinary Health Sciences			x		
	Total			1.5	0.5	
PICKELL, Laura Brooke	HLTH 2001 - Health Research Methods/Skills	0.5	x	x	x	
Instructor 1	HLTH 2004 - Microbiology and Virology	0.5	x	x		
	HLTH 3402 - Diseases of Aging	0.5	x		x	
	HLTH 3404 - Psychsocial Biological Interactions	0.5			x	
	HLTH 4102/5350 - New Health Technologies	0.5	x	x	x	
	HLTH 4502 - Disabil & Disorders Sens.Nerv Sys	0.5			x	
	Total		2.0	1.5	2.0	
YSSELDYK, Renate Lianne	HLTH 2003 - Social Determinants of Health	0.5		x	x	
Associate Professor	HLTH 5100 - Fundamentals Research Methods	0.5		x	x	
	HLTH 5402 - Bio & Social Fund of Hlth	0.5		x	x	
	Total			1.5	1.5	

D.5 Contract Instructors

Because this is a professional program designed to meet market demand for employment, it will benefit from a mix of Health Sciences and other faculty, along with four contract instructors (see Table D.2 for proposed faculty). The Department has had good experience with the quality and availability of contract instructors in its other programs, as borne out by student evaluations. Instructors bring current pertinent experience and a valuable link to the employment market.

For regulatory affairs, the proximity and expertise of Health Canada staff are definite assets. For example, a Health Canada director working in regulatory affairs says “Could you also pitch potential guest lecturers from Health Canada, particularly our Clinical Trials Group and our Regulatory Operations and Enforcement Branch?”

In Section A.1.2 partnerships were identified as an innovative feature of the new program. An important aspect of this feature is the participation of partners as faculty for the program. This provides students with practical exposure to the world of clinical trials practitioners.

E. Program Admission and Enrolment

E.1 Admission Requirements

Entry to the program occurs at one time only in September each year.

The criteria for students to be considered for admission to the new program in both pathways are:

for the practicum pathway:

- 4-year (honours) bachelor degree or equivalent professional degree in a related discipline
- minimum B+ (77%) average over last 2 years of study (or last 20 one-term courses)
- one undergraduate course in statistics or equivalent (desirable)

and, in addition, for the non-practicum pathway:

- two years of experience in clinical trials (broadly defined)

Applicants must submit their transcripts, a professional resume, two or three letters of recommendation, a statement of intent outlining their career goals and their alignment with the learning outcomes and degree level expectations of the program. They also provide information about relevant work experience.

The Graduate Admissions Committee, which is a sub-committee of the Graduate Curriculum Committee (see Section B.2) assesses applications based on:

1. Transcripts

Does the applicant's past education and GPA meet that required for entry to the program?

Are there any issues of concern in the applicant's academic record?

2. Academic Preparation

Is the applicant's academic preparation appropriate to the program?

Will the academic preparation likely permit the applicant to succeed in the courses of the program?

Beyond any Pre-program, non-credit requirements (see section B.1) does the applicant require additional courses to facilitate entry to the program

3. Letters of Recommendation

Do the applicant's personal and professional letters of recommendation demonstrate confidence in her/his qualifications and interest in the program?

Are there any issues of concern that need to be addressed?

4. Statement of Intent

Does the applicant's statement demonstrate that her/his goals and interests are aligned with those of the program?

Is the written quality of the statement of interest reflective of graduate-level work?

5. Work Experience

Is the work experience of the applicant relevant to the program?

Does the work experience provide the applicant with the basic skills to facilitate entry to, and likely success in, the program?

6. Area of Expertise

Will the applicant contribute to the balance of expertise (skills and knowledge) represented by the students of the program?

Does the applicant show potential to work in the clinical trials field upon graduation?

As stated in Section F, most/all students who meet the basic requirements for admission will be interviewed.

E.2 Class Sizes / Course and Program Capacity

Students in both pathways (with or without practicum) will take courses together as a cohort. The enrolment projections are conservative, particularly during the first two years of program operation. This is not due to expectations of limited interest on behalf of students or prospective employers but rather an acknowledgment of the unanticipated challenges (known unknowns) that will be encountered during the establishment phase of a program. In year 1 there will be 13

total intakes, rising in year 5 when the program matures to 26 total intakes. We envision initially taking domestic students only but opening the program to international students once the program is established and develops a reputation in year 3. The enrolment targets for part-time students are modest and reflect the concern that the admission of too many part-time students during the initial years of program establishment would present challenges for the delivery of core courses.

Based on the conservative starting numbers for the establishment phase of the program, it is anticipated that the student-faculty ratios for the core courses will vary between 15 and 25. It is anticipated that there will be considerable demand for some of the core courses from students registered in other graduate programs because of their unique expertise. If demand for these courses exceeds the predicted numbers, this may provide the opportunity to increase the number of sections of these courses.

Based on discussions with sister units, we do not anticipate that the demand for (existing) elective courses offered by sister units or Department of Health Sciences will exceed the course capacity. This is due to the fact that the elective courses aim to provide an additional breadth of expertise to students and are tailored to their specific needs. Therefore, while the overall demand for elective courses will be high, the demand for specific courses would be relatively low (9 elective courses available to the cohort of 26 students). As discussed above, if demand for these courses exceeds the predicted numbers, this may provide the opportunity to increase the number of sections of these courses.

E.3 Projected Enrolment

After a year of preparation (e.g.- assignment of professors, selection of support staff, course development) the program will begin. The table projects growth in the Degree with Practicum and Coursework pathways. In year 1 there will be 13 total intakes, rising in year 5 when the program matures to 26 total intakes. Because the program averages 16 months in length, enrolment numbers are greater than intake numbers. We envision to initially take domestic students only, but opening the program to international students once the program is established and develops reputation in year 3. These enrolment projections attempt to balance the anticipated demand for full-time vs part-time spots and the ability to establish and secure high-quality placements and practicums with external partners.

Year		1	2	3	4	5
MSc Practicum Pathway						
Domestic	FT	5	5	7	9	10
Domestic	PT	3	3	4	4	4
International	FT	0	0	2	2	3

MSc Coursework Pathway						
Domestic	FT	2	2	3	4	5
Domestic	PT	3	3	3	3	3
International	FT	0	0	0	1	1
Total	FT	7	7	12	16	19
	PT	6	6	7	7	7
Total Intake		13	13	19	23	26
Total Enrolment		13	26	32	42	49

F. Student Experience and Satisfaction

It is important that the new program attract applicants who have both the necessary academic credentials and the potential for success in their careers. For this to occur, the following measures to enhance student experience should be put in place by the Department of Health Sciences prior to year 1 of the new program.

- **Scholarships**

To attract the best applicants, several scholarships are essential, both for entrance into the program and for academic performance during the program. Since the program is full-cost recovery and does not have access to scholarships from Carleton, scholarships must be obtained from partners such as industry, government and research institutes. These scholarships will have no strings attached to avoid possible conflict of interest.

- **Expedited Admission**

Successful applicants will be admitted individually or in small batches as soon as the Graduate Admissions Committee determines they meet the criteria for admission. By doing so early before the application deadline, whenever possible, we will show these applicants, often some of the best, that they are important to the program. In time, this will be an incentive for students to apply early to the program.

- **Recruitment Officer/Coach**

The new program will be able to attract higher quality applicants if a contractual part-time recruitment officer/coach liaises with them when they apply for the program. This person will be knowledgeable about the content of the program and the clinical trials and regulatory sectors.

- **In-Person Recruitment Sessions**

We will hold in-person recruitment sessions for potential applicants to be attended by the Chair, professors program staff, community partners, and in time, alumni of the program. A presentation by someone working in the clinical trials and regulatory affairs

field, may also be offered in these sessions > better informed applicants lead to better students.

- **Interviews with Qualified Candidates**

Most/all candidates who meet the basic criteria for admission should be interviewed by one or two members of the selection committee. This will allow for both parties to pose the necessary questions that will guide admission decisions and provide useful feedback to these candidates on their academic aspirations.

- **Stipends for Practicums**

Students who do their practicums will have completed all of their course requirements for their degrees prior to the practicums. Organizations receiving these students for practicums will benefit from the skills and competencies the students apply in the workplace. Paying them stipends recognizes this fact and helps students offset the tuition of the program.

- **Placement during Clinical Trials 2**

To enhance student practical experience further beyond the practicums, a four to six-week placement for them in government or a clinical trials organization is part of the Clinical Trials 2 course. This will allow students the simultaneous opportunity to put into practice skills they are learning.

- **Arrangements with Employers**

To facilitate entry into the new program and to ensure a 'pipeline' of quality applicants for years to come, there could be contractual arrangements with select employer organizations to propose candidates in the future. These would include research institutes /contract research organizations, Health Canada and industry.

- **Access to Research Office Support**

Although the new program does not prepare its graduates to become full-fledged researchers, it does prepare them to work in research environments involving clinical trials. Therefore, students will benefit from access to the services and counsel of a Research office, be that in the Faculty of Science or elsewhere at Carleton.

- **Access to Employment Counselling Office**

The knowledge and skills students acquire through the courses of the program, particularly the capstone practicum, will prepare them for employment thereafter. In addition, they will benefit from access to an employment counselling service, be that in the Faculty of Science or elsewhere at Carleton.

These measures will also enhance student experience once successful applicants enter the new program. In addition, it is important to measure the level of student satisfaction in the program going forward. Similar to the recent approach in the Department's HSTP Program, we will regularly review CGPSS survey data and conduct our own MSc student surveys aimed at identifying strengths and weaknesses of the program, along with opportunities for improvement. The Department Chair, professors and others associated with the new program will also hold periodic feedback sessions with students, follow up as necessary, and communicate the results to students.

F.1 Student Orientation, Advising and Mentoring

During the first in-person Session 1 (see Section B.2) of four to five days, students will participate in orientation, among other things. This will include meeting professors, contract instructors and program staff, an ice-breaker exercise, an introduction to the objectives, content and learning outcomes of the program by the Chair, presentations re the role of each professor / contract instructor and a sampling of practitioners in the field, practical exercises and discussion of how the program will unfold.

These and other initiatives should contribute to better engagement by students and overall satisfaction with the program. Regular measurement of student satisfaction will take place following each term and at the end of the program, with a view to being attuned to student needs and making improvements as soon as possible.

F.2 Career Paths of Graduates

To discuss job opportunities in clinical trials and regulatory affairs, the Working Group met individually with two clinical trials practitioners who have extensive experience in clinical research organizations (CRO), pharmaceutical companies and university environments. One of them advised that most US job opportunities are in the following categories:

- university clinical trial site coordinators
- CRO / pharmaceutical trial coordinators / managers
- CRO / pharmaceutical monitors
- CRO / pharmaceutical data managers

This expert noted that, although employers want to hire people with experience, they often have to settle for people with undergraduate degrees who have few skills in clinical trials. This requires more on-job-training and is often not an optimal situation. He and his colleagues see great value in our proposed Master degree in clinical trials.

The other clinical trials practitioner, who works more in Canada and is heavily involved with 'early talent', echoed many of these points. She felt that our unique program would allow these people to ramp up their careers more quickly and more effectively by bringing more skills to the

table. She emphasized the need for developing project management and leadership competencies in our students, which we have incorporated into the curriculum.

We also consulted job vacancy sites for clinical trials staff. There is a shortage of trained staff for clinical trials and options for obtaining training at the entry and early career levels are limited. With the new Master Degree, graduates will be eligible initially for positions such as:

- Clinical Trials - Research Assistant / Officer/Associate, Methodologist, Trial Start-up Specialist/Design Officer, Trial coordinator/Organizer/project manager, Medical Writer
- Regulatory Affairs - Regulatory Analyst / Officer, Compliance Monitor, Enforcement Officer, Regulatory Affairs Professional

A Health Canada Director currently working in the regulatory field says “I think this type of program would make them more than just effective practitioners, but would be broader in that they could design and seek funding, audit, review/approve from a regulatory standpoint, review approve from a funding standpoint etc.”

Career progression in clinical trials employment will occur into positions like Coordinator, Site Supervisor/Manager, Contracts Manager, Clinical Team Manager/Director, Project Manager/Director, Design Manager Regulatory Affairs Manager/Director, Compliance Manager/ Director etc. Related job opportunities exist in other areas such as biostatistics, policy, quality management, communications, information technology and records management.

G. Resources

The Health Sciences Department has expended considerable effort in advancing its proposal for a MSc Clinical trials and regulatory Affairs to this stage. We appreciate the support of the Faculty of Science and senior administration of Carleton University enroute to where we are now.

To implement this unique program successfully in the fall of 2024 will require adequate resources on a timely basis. This is critical in 2023-24 (year zero) when we are planning and preparing to launch the new program. Here is a summary our requirements for additional human resources in 2023-24, and timeline for recruitment. Justification for these positions is provided in the ensuing Sections G.1 and G.4.

Position	May-October 2023	November 2023- April 2024
Graduate Program Administrator	1	
Assistant Professor	1	

Contract Instructors	2	2
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Enhancing Graduate Program staff will allow for administration of the new program to proceed as necessary. Once hired, the Assistant Professor and Contract Instructors will develop course syllabi and do other preparations to allow the program to begin without delay in September 2024. In addition, the Assistant Professor will act as Program coordinator and will liaise with external partners to develop practicum and placement sites. Clear and timely communication with professors, clinical instructors and prospective students is vital in this regard.

G.1 Support and Technical Staff

The Department of Health Sciences does not have a dedicated graduate administrator. Since the inception of the department in 2011 student enrolment, both undergraduate and graduate, as well as the numbers of staff and faculty has increased significantly, and so did the corresponding administrative burden of our departmental/graduate administrator. Similar to other large departments we therefore wish to separate the departmental administrator and graduate program administrator positions.

We are requesting one graduate administrator position. This person will take over the administration of our two existing growing graduate programs (traditional M.Sc./Ph.D. and the HSTP) as well as the new MSc program. We anticipate that this will positively impact on student experience, student satisfaction, and thus our reputation and ability to increase future enrolment of graduate students.

G.2 Space

Office spaces for additional faculty and administrator are required through the Department of Health Sciences. Classroom space is required, although the hybrid program delivery model, involving in-person and on-line courses, should reduce classroom pressure. Students may require a small number of study carrels, office space for group meeting space and access to common room space for orientation and in-person activities that involve the full cohort of students. Required spaces are available.

G.3 Library Resources

As shown in the library report in Appendix 4, we require no specific support given the Carleton Library has excellent resources already in place.

G.4 Teaching Staff Resources

Although some graduate course offerings already exist in Health Sciences and sister units which will participate in the new program (e.g. HLTH 5151, HLTH 5700) we request a permanent 1 FT

tenure-track faculty position at the Assistant Professor level with the following responsibilities for new courses:

HLTH 5812 (0.5 credit) – Clinical Trials 1

HLTH 5814 (0.5 credit) - Assessment and Patient Safety for Clinical Trials

And a 0.5 credit equivalent for program coordination and advising students, and liaison / networking with outside agencies and companies in the clinical trials / regulatory affairs field (HLTH 5820).

Salaries associated with hiring of Contract Instructors in Health Sciences to offer 3.0 credit course equivalents listed below. The Contract Instructors will be experts in their fields and will be drawn from both government (e.g. Health Canada) and industry (e.g. OHRI, CROs).

HLTH 5815 (0.5 credit) - Principles of Data Management and Analysis in Clinical Trials

HLTH 5816 (0.5 credit) - Government Regulatory Processes

HLTH 5817 (0.5 credit) - Government, Research Organizations and Industry

HLTH 5818 (0.5 credit) - Ethics, Community and Patient Engagement

HLTH 5819 (0.5 credit) - Clinical Trials Protocols, Operations and Management

G.5 Financial Resources

The attached business plan details the financial resources for the new program, based upon its rise to maturity over five years.

Initially, funds for a faculty position, contract instructor and administrator are required. Our goal is that no special support will be required for this program by year 5 at which time all costs will be entirely covered by tuition, as in other professional programs.

H. Development of the Self-Study

The Self-Study allows the Department of Health Sciences to explore in depth the feasibility of offering the MSc Clinical Trials and Regulatory Affairs program and to plan strategically and operationally for its implementation in 2024-25.

A Working Group with internal and external representation from the clinical trials and regulatory fields was appointed by the Director in the fall of 2021. Membership in the Working Group, along with the roles of each member, are presented below:

Martin Holcik, PhD

Chair, Department of Health Science, Carleton University

Chair, Working Group

Role- set agenda for Working Group meetings, chair meetings, communicate with other Carleton departments, Faculty of Science Dean, and Carleton senior administration, arrange external consultations, propose budget/other requirements of new program, review Self Study drafts

Utkarsh Dang, PhD

Assistant Professor, Department of Health Sciences, Carleton University

Assistant Professor, Department of Mathematics and Statistics, Carleton University

Role- advise re approach and content of new program, propose curriculum of new program, provide clinical trials and statistical expertise, develop preliminary subject listing of courses, arrange external consultations, review Self Study drafts

Mohamed Gazarin, PharmD

Chief Research Officer, Winchester District Memorial Hospital

Lecturer, Faculty of Medicine, University of Ottawa

Role- review Self Study drafts, propose approaches and design for the new program based upon US and Canadian experience, assess curriculum needs

Paul Peters, PhD

Associate Professor, Department of Health Sciences, Carleton University

Graduate Advisor, Department of Health Sciences, Carleton University

Role- review Self Study drafts, propose approaches for the new program, assess curriculum needs based upon his Graduate Advisor role

Erling Rud, PhD

Adjunct Professor, Department of Health Sciences, Carleton University

former Researcher, Virology/Infectious Diseases, Health Canada

Role- review Self Study drafts, propose approaches and design for the new program, advise re regulatory processes at Health Canada and in the field based upon his experience in this area

Brian Malcolmson, MHA

Planning Consultant, MSc Clinical Trials and Regulatory Affairs, Carleton University

former Director, Master Health Administration (MHA) Program, University of Ottawa

Role- prepare and revise drafts of the Executive Summary and the Self Study for the Department Chair and the Working Group, based upon his experience as former Director of a Masters program

The first task of the Working Group, was to prepare an Executive Summary of the proposal which was reviewed informally by Carleton administrators prior to being approved by the Vice President's Academic Research Committee in May 2022. In parallel, the Working Group developed the Self Study.

Methods used by the Working Group include:

- literature review on clinical trials education programs and courses
- description of the growth in the clinical trials field in Ontario
- assessment of employment opportunities in clinical trials and regulatory affairs
- consultation with a sampling of external experts in clinical trials and regulatory affairs in Canada and the USA (see section A.1.2)
- development of innovative approaches and design for the new program, particularly in a COVID environment
- curriculum design to address student needs comprehensively and provide maximum experiential learning
- learning outcomes workshop with Carleton officials incorporated into outcomes of the new program

Contributions and advice provided by:

Dr. Dan Siddiqi, Associate Dean (Programs), Faculty of Graduate and Postdoctoral Affairs

Sandra Bauer, Program Officer, Faculty of Graduate and Postdoctoral Affairs

Appendix 1. Proposed Calendar Program Descriptions

M.Sc. in Clinical Trials and Regulatory Affairs, Degree with Practicum (6.0 credits)

Requirements:

1. 0.0 credit in:		0.0
HLTH 5101 [0.0]	Statistical Software and Biostatistics Primer (must be completed within 2 weeks of 1st semester)	
HLTH 5811 [0.0]	Clinical Trials Primer (must be completed within 2 weeks of 1st semester)	
2. 4.0 credits in:		4.0
HLTH 5812 [0.5]	Clinical Trials 1: Introduction	
HLTH 5813 [0.5]	Clinical Trials 2	
HLTH 5814 [0.5]	Assessment and Patient Safety for Clinical Trials	
HLTH 5815 [0.5]	Principles of Data Management and Analysis in Clinical Trials	
HLTH 5816 [0.5]	Government Regulatory Processes	
HLTH 5817 [0.5]	Government, Research Organizations and Industry	
HLTH 5818 [0.5]	Ethics, Community and Patient Engagement	
HLTH 5819 [0.5]	Clinical Trials Protocols, Operations and Management	
3. 0.5 credit from:		0.5
HLTH 5150 [0.5]	Statistics for Health Sciences	
HLTH 5151 [0.5]	Principles of Epidemiology	
HLTH 5350 [0.5]	New Health Technologies	
HLTH 5700 [0.5]	Special Topics in Biostatistics and Epidemiology	
HLTH 5704 [0.5]	Special Topics in the Science of Disease	
STAT 5602 [0.5]	Analysis of Categorical Data	
STAT 5603 [0.5]	Reliability and Survival Analysis	
BIOC 4708 [0.5]	Principles of Toxicology	
CHEM 4305 [0.5]	Environmental Chemistry and Toxicology	
4. 1.5 credit in:		1.5
HLTH 5810 [1.5]	Clinical Trials Practicum	
Total Credits		6.0

M.Sc. in Clinical Trials and Regulatory Affairs, Degree without Practicum (4.5 credits)

Requirements:

1. 0.0 credit in:		0.0
HLTH 5101 [0.0]	Statistical Software and Biostatistics Primer (must be completed within 2 weeks of 1st semester)	
HLTH 5811 [0.0]	Clinical Trials Primer (must be completed within 2 weeks of 1st semester)	
2. 4.0 credits in:		4.0
HLTH 5812 [0.5]	Clinical Trials 1: Introduction	
HLTH 5813 [0.5]	Clinical Trials 2	

HLTH 5814 [0.5]	Assessment and Patient Safety for Clinical Trials	
HLTH 5815 [0.5]	Principles of Data Management and Analysis in Clinical Trials	
HLTH 5816 [0.5]	Government Regulatory Processes	
HLTH 5817 [0.5]	Government, Research Organizations and Industry	
HLTH 5818 [0.5]	Ethics, Community and Patient Engagement	
HLTH 5819 [0.5]	Clinical Trials Protocols, Operations and Management	
3. 0.5 credit from:		0.5
HLTH 5150 [0.5]	Statistics for Health Sciences	
HLTH 5151 [0.5]	Principles of Epidemiology	
HLTH 5350 [0.5]	New Health Technologies	
HLTH 5700 [0.5]	Special Topics in Biostatistics and Epidemiology	
HLTH 5704 [0.5]	Special Topics in the Science of Disease	
STAT 5602 [0.5]	Analysis of Categorical Data	
STAT 5603 [0.5]	Reliability and Survival Analysis	
BIOC 4708 [0.5]	Principles of Toxicology	
CHEM 4305 [0.5]	Environmental Chemistry and Toxicology	
Total Credits		4.5

Appendix 2. Proposed Calendar Course Descriptions

BIOC 4708 [0.5 credit]

Principles of Toxicology

Basic theorems of toxicology with examples of current research problems. Toxic risk is defined as the product of intensive hazard and extensive exposure. Each factor is assessed in scientific and social contexts and illustrated with many types of experimental material.

Also offered at the graduate level, with different requirements, as BIOL 6402, CHEM 5708, for which additional credit is precluded.

Lectures three hours a week.

CHEM 4305 [0.5 credit]

Environmental Chemistry and Toxicology

Overview of environmental chemistry and toxicology principles including chemical sources, fate, and effects in the environment. Examining organic reactions occurring in abiotic environments and biological systems, and studying aspects of toxicant disposition and biotransformation. Emphasis on contemporary problems in human health and the environment.

Also offered at the graduate level, with different requirements, as CHEM 5606, for which additional credit is precluded.

Lectures three hours a week.

HLTH 5101 [0.0 credit]

Statistical Software and its Application to Health Sciences Primer

Introduction to statistical softwares used to analyze health research data. Data management topics include data entry, manipulation, and elementary statistical analyses using SAS, SPSS, Stata and R. Other topics include privacy/maintaining security of health datasets. For students without strong backgrounds in biostatistics/data handling.

Includes: Experiential Learning Activity

HLTH 5150 [0.5 credit]

Statistics for Health Sciences

Statistical methods commonly used in analyses of health data. This applied course covers topics related to descriptive and graphical methods, tests of hypotheses in both paired and independent samples, linear regression, survival analysis, and logistic regression.

Includes: Experiential Learning Activity

Lecture three hours a week, lab/workshop three hours a week.

HLTH 5151 [0.5 credit]

Principles of Epidemiology

Introduction to epidemiologic concepts and methods. Different types of epidemiological study designs. Fundamental concepts of: definitions and measures of disease frequency and effects, causality, bias, sample size, confounding and interaction.

Includes: Experiential Learning Activity

HLTH 5350 [0.5 credit]

New Health Technologies

Overview of new and emerging health technologies, including medical and assistive devices, diagnostics and screening, genetics, reproduction, tissue regeneration, imaging, and health informatics. Health technology assessment methods and issues. Regulatory, ethical and social implications; considerations in the developing world.

Includes: Experiential Learning Activity

Also offered at the undergraduate level, with different requirements, as HLTH 4102, for which additional credit is precluded.

HLTH 5700 [0.5 credit]

Special Topics in Biostatistics and Epidemiology

Selected topics in biostatistics and epidemiology, focusing on areas of specific relevance to the health sector, not available in regular program offerings. These courses are designed to provide depth of expertise and/or specific skills relevant to the workplace.

Includes: Experiential Learning Activity

HLTH 5704 [0.5 credit]

Special Topics in the Science of Disease

Selected topics in the science of disease, focusing on areas of specific relevance to the health sector, not available in regular program offerings. These courses are designed to provide depth of expertise and/or specific skills relevant to the workplace.

*HLTH 5811 [0 credit] (PROPOSED NEW COURSE)

Clinical Trials Primer

Overview of the vast area of clinical trials of drugs and devices, and principles of informed consent, regulatory requirements, rigorous documentation, analysis, and reporting. Students will also work on certificates in biomedical ethics, good clinical practice, and others, e.g., from CITI Canada.

*HLTH 5812 [0.5 credit] (PROPOSED NEW COURSE)

Clinical Trials 1: Introduction

Fundamentals of trials of health products and different phases and types of clinical trials will be stressed. Investigator vs. sponsor-initiated trials, different regulatory agencies, the use of randomization, blinding, registration regulatory requirements, rigorous documentation, and common trial designs will be introduced.

*HLTH 5813 [0.5 credit] (PROPOSED NEW COURSE)

Clinical Trials 2

Other trial designs, recruitment of patients, data collection and quality control, interim monitoring, audits, inspections, timelines, etc. will be covered. Includes a four to six-week placement for experiential learning at a clinical site, regulatory site, CRO, or similar institution involved in clinical trials. Includes a four to six-week placement for experiential learning at a

clinical site, regulatory site, CRO, or similar institution involved in clinical trials.
Includes: Experiential Learning Activity

*HLTH 5814 [0.5 credit] (PROPOSED NEW COURSE)

Assessment and Patient Safety for Clinical Trials

The importance of efficacy and safety measurements, biosamples, pharmacokinetics, pharmacodynamics, drug mechanism of action, reporting of harm, Data and Safety Monitoring Board, pharmacovigilance, and consideration of special populations will be discussed. Good clinical practice, good medical practice, and good laboratory practice fundamentals will be discussed.

*HLTH 5815 [0.5 credit] (PROPOSED NEW COURSE)

Principles of Data Management and Analysis in Clinical Trials

Randomization, biomarkers, endpoints, estimands, sample size requirements, random error and bias, multiple testing correction, intent-to-treat vs per-protocol, equipoise and stopping rules for trials, database development and validation and reporting/transferring, development of statistical analysis plans, and considerations around missing data will be discussed.

*HLTH 5816 [0.5 credit] (PROPOSED NEW COURSE)

Government Regulatory Processes

Various regulatory agencies (Health Canada, US Food and Drug Administration, European Medicines Agency) will be compared. Harmonization efforts of national drug approval agencies, timelines for an Investigational New Drug Application including labeling, accelerated approval, breakthrough designation, orphan drugs, and biologics licence application will be explored.

*HLTH 5817 [0.5 credit] (PROPOSED NEW COURSE)

Government, Research Organizations and Industry

Overview of regulatory requirements of pharmaceutical companies, contracting research organizations, and communication with regulatory agencies. This will cover negotiation and collaboration between sectors, incentives like FDA priority review vouchers, project management, manufacturing and distribution, phase IV post-marketing and continued monitoring, pharmacovigilance, and post-marketing changes.

*HLTH 5818 [0.5 credit] (PROPOSED NEW COURSE)

Ethics, Community and Patient Engagement

Patient engagement, equipoise, informed consent, ethics board, monitoring, reporting/release of data in the literature, compassionate/expanded access, and patient foundations, liaisons and advocates, will be covered. Engaging with indigenous communities and special populations and considerations around translational research, generics, biosimilars, and labeling will be discussed.

*HLTH 5819 [0.5 credit] (PROPOSED NEW COURSE)

Clinical Trials Protocols, Operations and Management

Clinical protocols, electronic case report forms and guidelines, data management plan, monitoring plan, pharmacy manual, standard operating procedures, manual of operating procedures, delegation of authority logs, and training logs will be covered. Finally, this course will include a module on leadership, logistics, and budgeting.

*HLTH 5820 [1.5 credit] (PROPOSED NEW COURSE)

Clinical Trials Practicum

Capstone credit course required for students in the Practicum pathway. Involves experiential learning at a clinical site, regulatory site, CRO, or similar institution involved in clinical trials. Students will demonstrate the knowledge and skills gained, and will present on their experience, efforts, and lessons learned.

Includes: Experiential Learning Activity

STAT 5602 [0.5 credit] (MAT 5317)

Analysis of Categorical Data

Analysis of one-way and two-way tables of nominal data; multi-dimensional contingency tables, log-linear models; tests of symmetry, marginal homogeneity in square tables; incomplete tables; tables with ordered categories; fixed margins, logistic models with binary response; measures of association and agreement.

STAT 5603 [0.5 credit] (MAT 5318)

Reliability and Survival Analysis

Types of censored data; nonparametric estimation of survival function; graphical procedures for model identification; parametric models and maximum likelihood estimation; exponential and Weibull regression models; nonparametric hazard function models and associated statistical inference; rank tests with censored data applications.

Appendix 3. Proposed Calendar Admission Requirements

Admission

Entry to the program occurs at one time only in September each year.

The criteria for students to be considered for admission to the new program in both pathways are:

for the practicum pathway:

- 4-year (honours) bachelor degree or equivalent professional degree in a related discipline
- minimum B+ (77%) average over last 2 years of study (or last 20 one-term courses)
- one undergraduate course in statistics or equivalent (desirable)

and, in addition, for the non-practicum pathway:

- two years of experience in clinical trials

Applicants must submit their transcripts, a professional resume, two or three letters of recommendation, a statement of intent outlining their career goals and their alignment with the learning outcomes and degree level expectations of the program. They also provide information about relevant work experience.

Appendix 4. Library Report



Institutional Quality Assurance Process

Library Report for Master of Science (MSc) Clinical Trials and Regulatory Affairs

New Program

Date: August 25th, 2022

Compiled by: George Duimovich, Collections Librarian, Science, Engineering & Design

Submitted to: Sandra Bauer, Program Officer, Faculty of Graduate & Postdoctoral Affairs

cc Amber Lannon, University Librarian
Laura Newton Miller, Head of Collections & Assessment
Sally Sax, Head of Electronic Resources & Acquisitions
Patti Harper, Head of Research Support Services

Overview and Recommendations

An analysis of Carleton University Library's information resources and services in support of the program demonstrates that the Library does not require additional funds to support it.

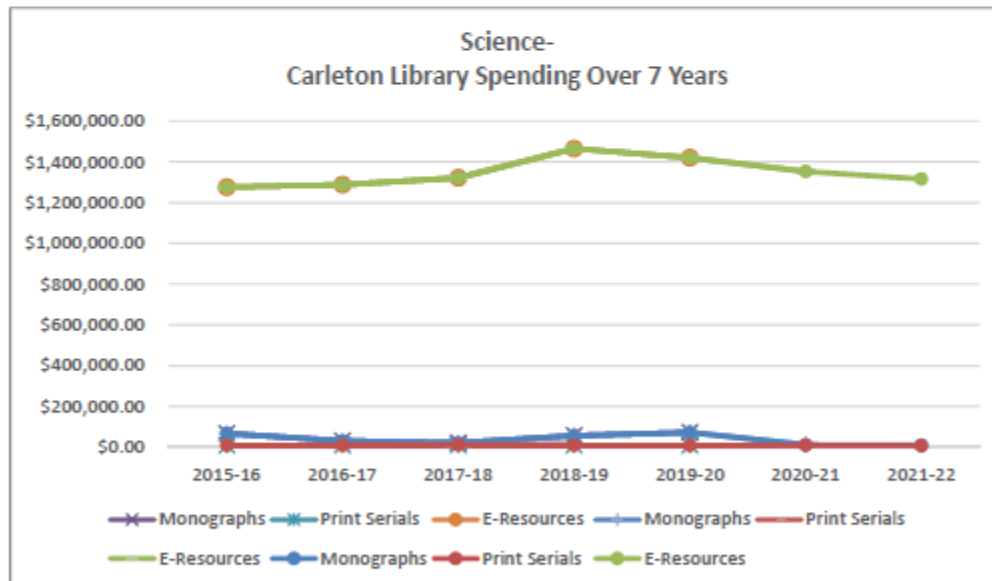
Library Collections

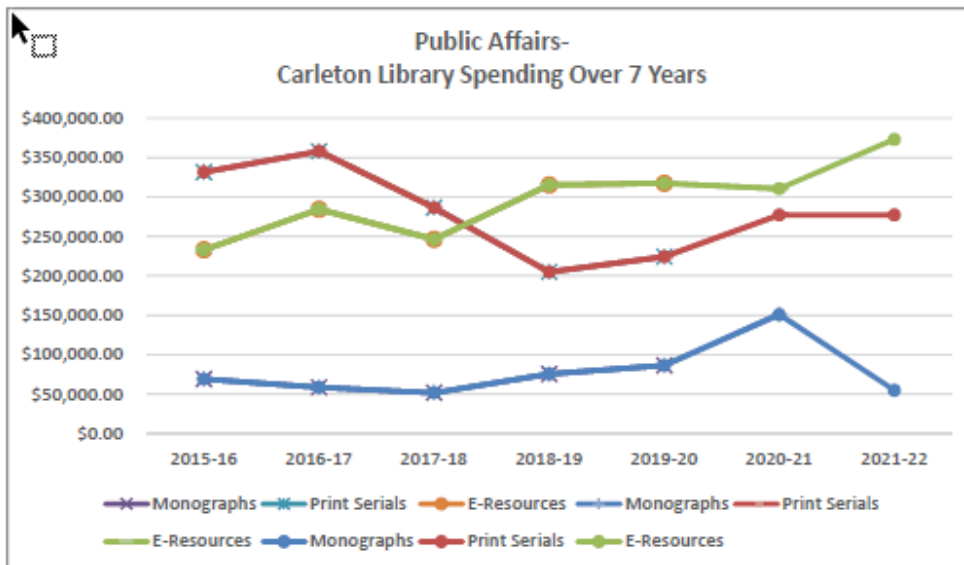
Subject Specific

The Library's collection includes specific resources to support the Master of Science (MSc) Clinical Trials and Regulatory Affairs. These include 19 of the top-ranked 20 journals in Google Scholar rankings as well as 20 of 20 of the top ranked journals in SCIMago, classified under the subject categories: Health and Medical Sciences, and Health Policy respectively. In addition, the Library's collections of journals in related programs are also strong in general sciences, public policy, law and governance.

During the 2021-2022 academic year, the Library's spending for collection in all areas was about \$6.3 million. 88% of the entire collections budget is spent on electronic resources. Over \$5.5 million was spent on general electronic resources which benefit all subject areas.

In addition to that amount, the following shows the amounts spent on electronic resources (databases, journals, ebook packages, indexes), print journals, and monographs (individual orders) related to Faculty of Science and Faculty of Public Affairs for the past seven years:





The policy for materials that the Library collects for Health Sciences may be found at <https://library.carleton.ca/about/policies/collection-profile-health-sciences>

Teaching, Learning, and Research

The information-literate student is one who is able to access information efficiently, critically assess it, assimilate and synthesize it effectively. The Library's programs and services are grounded in Ontario's Quality Assurance Framework.

The Librarian works collaboratively with faculty to address students' information competencies through a number of methods, including the following.

Instruction, Teaching, and Practicums

A total of 426 in-class instruction sessions were provided by Library staff in all subject areas during 2021-22, and a total of 10,294 students attended those sessions. This was also supplemented by over 200 videos created with over 10,000 views. The Librarian designs classes and practicum opportunities to meet the needs of specific assignments and course requirements while addressing broad learning objectives. This has included support for Systematic Reviews and other Knowledge Syntheses important to health studies and related disciplines.

Learning Support – Provided Online

The Library website (library.carleton.ca) is designed to support each step of the research process: identifying, accessing, borrowing, evaluating, and citing resources. Google Analytics recorded almost 1 million visits to the Library website during 2021-22. Library users can conduct a comprehensive search of the entire collection using the Omni search interface. New improvements to Omni mean that Carleton users can now easily request to borrow items from university libraries across Canada, the United States, and other countries.

Highlights of the Library website include:

- [Health Subject Guide](#)
- [Health Care: Public Policy and Statistics Subject Guide](#)
- [Public Policy Collection Profile](#)
- Support for [Systematic Reviews](#)

Research Partnerships

Active research is the foundation of a strong academic program, and an increasingly important part of student learning and development. The Library provides resources, services, and expertise to facilitate the Carleton research community at all levels and through all stages of the research process. This research support is provided at key service points, and through consultations and more formal collaborations.

Services

Individual Research Consultations

Library staff provided 3715 individual research consultations in 2021-22 for all faculties. Consultations can be scheduled for quantitative and qualitative research, as well as for GIS support.

Research Help – Desks & CHAT

Onsite research help is provided through two service points: a Research Help desk on the main floor of the Library and a help desk in Archives and Special Collections (ASC). These two service points had a total of 5257 visits in 2019-20. Although the pandemic disrupted visits to these service points between 2020 and 2022, research help continues to be available through email and virtual platforms (over 1400 research help questions answered) and through our extended online Ask a Librarian CHAT service, which answered 2105 Carleton patron questions in 2021-22.

Results from recent user surveys show that the Library performs well in providing off-campus access to resources and services, and that these resources help people to be successful at university. The Library also does well at providing accurate answers to questions and providing course reserves that help both faculty and students.

General Information about the Library

Carleton Library consists of five stories, totaling over 214 thousand square feet. Two floors are dedicated to silent study, while three others allow for quiet conversation. As of the Fall of 2019, the Library had a total of 2400 seats for students. This included 179 public computers and 41 bookable group study rooms. User surveys show the need for more group and silent spaces with outlets for power, and so renovations throughout the Library in the past few years continue to focus on new study space for students.

Thanks to \$1 million in funding from the Government of Ontario's Training Equipment and Renewal Fund and a matching contribution from the university, the fourth floor of Carleton Library is being transformed into a newly designed space called the [Future Learning Lab](#). This multi-purpose space can be adapted to suit a wide range of needs. It is envisioned as both a

physical space and a set of programs designed to foster innovation and incentivize student-centred ways of teaching.

The New Sun Joy Maclaren Adaptive Technology Centre provides Carleton University students with disabilities, who have been referred by centrally on campus, to a pleasant comfortable place to do university work using technology adapted to their needs.

The Library's collection includes approximately 1.2 million print monographs, 2.7 million e-books, and over 260,000 e-journals in a wide range of subjects and disciplines. In addition, the Library has substantial collections of government documents and other resources, maps, data, rare books and other special research collections, printed journals, archives, theses, multimedia resources (audio, DVD, streaming video), musical scores, as well as licensed access to full-text and indexing databases in a broad range of subjects.

Collection librarians work together with the Head of Collections & Assessment to build and maintain the Library's collection by developing collection policies that guide the systematic selection of materials. The Library also provides a request form on its website where a user may suggest a book or other item for purchase.

In order to enhance its purchasing power (particularly for electronic resources), the Library is an active member of two major cooperative partnerships: the Ontario Council of University Libraries (OCUL), a consortium of the 21 academic libraries in the province; and the Canadian Research Knowledge Network (CRKN), a consortium of 75 academic libraries across the country. Carleton Library is also a member of HathiTrust, which gives students, staff, and faculty access to a digital repository of millions of books, serials, and other materials from research institutions and libraries from around the world.

The Library's annual acquisitions budget for the 2022-2023 fiscal year is \$9.1 million, and its staffing and operating budget is \$14.2 million.

The Library acquisitions budget is not protected from inflation, exchange rates, or cuts, which often challenges the Library's ability to provide all the necessary resources in support of teaching, learning, and research at Carleton. Consideration of the funds necessary for the Library's acquisitions budget is part of the academic planning and Quality Assurance processes for new programs. The Library is dedicated to regular assessment of its resources and services. Staff use an assortment of qualitative and quantitative techniques to evaluate collections and services in order to make sound decisions within budget parameters.

The Library strongly supports the principles and practices of open access. The University's institutional repository, CURVE, was established in 2011 and is maintained by the Library. It includes not only a growing archive of the broad intellectual output of the University, but also digitized versions of most of the theses accepted at Carleton since 1955 – and as of 2014 houses all new Carleton theses deposited electronically. The Library contributes to CURIE, the University's program to provide funding for faculty and researchers who are publishing in open access journals, and also hosts 10 OA journals online using the Open Journal Systems management and publishing system.

AT A GLANCE: CARLETON UNIVERSITY LIBRARY

Statistics as of May 1, 2022 except where indicated. Labour disruption*, new system implementation & effects of the pandemic** including an entire year online *** has affected some numbers

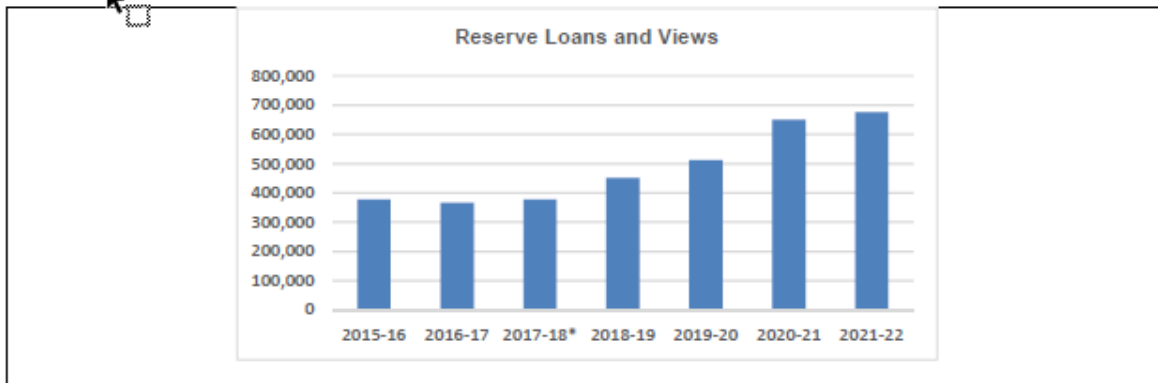
Research Highlights

<ul style="list-style-type: none"> - CURVE- Carleton's Institutional Repository - Open Access- Funding for Faculty, Staff, & Students; Open Access Awards for Graduate Students - Research Data Management Training - Professional Skills Training for Graduate Students 	<p>Collection Spending:</p> <ul style="list-style-type: none"> - \$6.3 million; 88% of the entire collections budget spent on electronic resources - \$5.5 million spent on general electronic resources which benefit all subject areas
<p>Total Material Expenditures- Library</p>	<p><i>*2020-21- purchased a lot of one-time material to support the switch to online learning which did not have to be paid for again. Annual cost increases for subscriptions were lower than usual due to ongoing pandemic, & a favourable exchange rate lowered our overall spend as most of our invoices are paid in USD.</i></p>

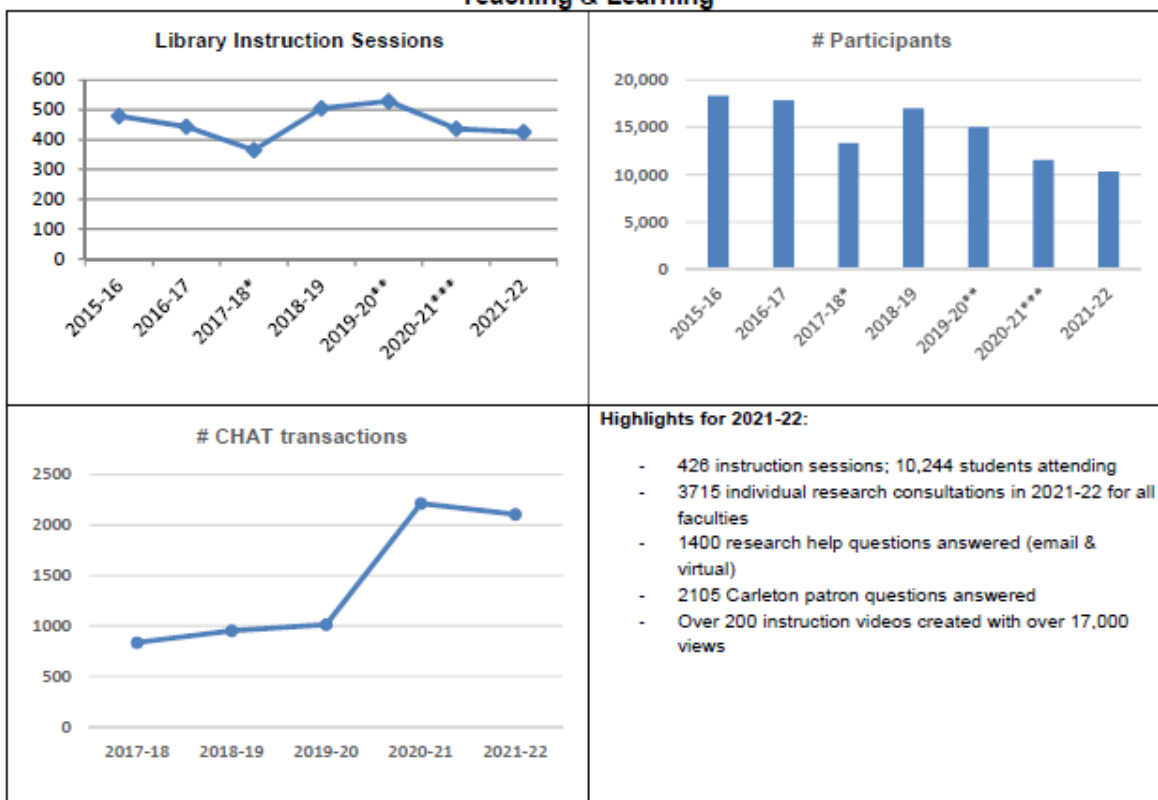
Collections- Usage

COUNTER 5-compliant data from a selection of major e-publishers/vendors (2019 onward only)

<p>E-Journal Total Usage</p>	<p>Database- Regular Searches</p>
<p>E-Book Titles-Total Item Requests</p>	<p>Print Book: Loans & Renewals</p>



Teaching & Learning



Space

Almost 1 million visits to Library website in a year
 Future Learning Lab
 Adaptive Technology Centre
 Innovative Study areas
 Group & graduate study rooms
 Book Arts Lab, an experiential learning space

Appendix 5. Letters of Support



STATEMENT OF SUPPORT FROM SISTER UNIT

The Department of Health Sciences is proposing a new graduate program in Clinical Trials and Regulatory Affairs. This professional program aims to meet pressing needs in the healthcare research community, government, and industry. This one-of-a-kind program will prepare students to design, manage, and carry out clinical trials for a wide variety of healthcare products.

I support this change unconditionally.

I do not support this change.

I support this change, with the following reservations:

We are enthusiastic but care will have to be taken in determining which elective courses are acceptable for our respective programs. As a member of the OCIB, our courses are cross-listed at the University of Ottawa. We will have to ensure that cross-department and -institutional enrollment doesn't exceed our capacity to run specific graduate courses effectively.

While not included in the proposal, we see potential overlap in elective courses given our broad expertise in life sciences. There may be course that students enrolled in the new Master degree would be interested in taking that we offer and our students may be interested in some of the courses offered as part of this degree. We look forward to future collaboration on expanding elective options for graduate students in our respective programs.

Signature:

Name: Bruce McKay

Title: Chair

Academic unit: Biology

Date: September 19, 2022

STATEMENT OF SUPPORT FROM SISTER UNIT

The Department of Health Sciences is proposing a new graduate program in Clinical Trials and Regulatory Affairs. This professional program aims to meet pressing needs in the healthcare research community, government and industry. This one-of-a-kind program will prepare students to design, manage, and carry out clinical trials for a wide variety of health care products. We would like to engage broadly with the Department of Chemistry, initially by including in our program CHEM and BIOC courses as elective options:

**BIOC 4708 Principles of Toxicology,
CHEM 4305 Environmental Chemistry and Toxicology,**

- I support this change unconditionally.
- I do not support this change.
- I support this change, with the following reservations:

Signature:



Name: Robert Burk

Title: Professor and Chair

Academic unit: Chemistry

Date: February 28, 2022

June 15, 2022

STATEMENT OF SUPPORT FROM SISTER UNIT

The Department of Health Sciences is proposing a new graduate program in Clinical Trials and Regulatory Affairs. This professional program aims to meet pressing needs in the healthcare research community, government, and industry. This one-of-a-kind program will prepare students to design, manage, and carry out clinical trials for a wide variety of healthcare products. We would like to engage broadly with the School of Mathematics and Statistics, initially by including the STAT courses as elective options in our program. Given this program's hybrid mode of delivery, the elective courses may need online options and will require extra resources from the Department of Health Sciences.

STAT 5602 Analysis of Categorical Data
STAT 5603 Reliability and Survival Analysis

- I support this change unconditionally.
- I do not support this change.
- I support this change, with the following reservations:



David Amundsen
Interim Director

STATEMENT OF SUPPORT FROM SISTER UNIT

The Department of Health Sciences is proposing a new graduate program in Clinical Trials and Regulatory Affairs. This professional program aims to meet pressing needs in the healthcare research community, government, and industry. This one-of-a-kind program will prepare students to design, manage, and carry out clinical trials for a wide variety of healthcare products.

I support this change unconditionally.



I do not support this change.

I support this change, with the following reservations:

On behalf of the School of Public Policy and Administration, I support the creation of the Master of Science in Clinical Trials and Regulatory Affairs. Our experience with hybrid Master programs has been very successful and we support the creative design that the Department of Health Sciences has proposed.

While not included in the proposal, we see potential overlap in elective courses given our expertise in health policy and government regulation. There may be course that students enrolled in the new Master degree would be interested in taking that we offer and our students may be interested in some of the courses offered as part of this degree. We look forward to future collaboration on expanding elective options for graduate students in our respective programs.

Signature:

Name: Jennifer Stewart

Title: Director

Academic unit: School of Public Policy and Administration

Date: June 16th, 2022

Program Change Request

New Program Proposal

Date Submitted: 11/02/22 5:14 pm

Viewing: **TBD-2167 : M.Sc. Clinical Trials and Regulatory Affairs**

Last edit: 11/02/22 5:14 pm

Last modified by: sandrabauer

Changes proposed by: sandrabauer

In Workflow

1. **HLTH ChairDir GR**
2. **SCI Dean**
3. **GRAD Dean**
4. **PRE GRAD FCC**
5. **GRAD FCC**
6. **GRAD FBoard**
7. **Future Cycle**
8. PRE SCCASP
9. SCCASP
10. SQAPC
11. Senate
12. CalEditor

Approval Path

1. 11/03/22 8:35 am
Martin Holcik
(martinholcik): Approved
for HLTH ChairDir GR
2. 11/07/22 12:04 pm
Yiqiang Zhao
(yiqiangzhao): Approved
for SCI Dean
3. 11/08/22 4:13 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD Dean
4. 11/08/22 4:14 pm
Sandra Bauer
(sandrabauer): Approved
for PRE GRAD FCC
5. 11/08/22 4:16 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD FCC
6. 11/16/22 10:20 am
Sandra Bauer
(sandrabauer): Approved
for GRAD FBoard

Effective Date 2023-24

Workflow majormod

Program Code TBD-2167

Level	Graduate
Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Degree	Master of Science
Title	M.Sc. Clinical Trials and Regulatory Affairs

Program Requirements

M.Sc. Clinical Trials and Regulatory Affairs (4.5 credits)

Requirements:

1. 0.0 credit in:

- [HLTH 5101](#) [0.0] Statistical Software and its Application to Health Sciences Primer (must be completed within two weeks of first semester)
- [HLTH 5811](#) [0.0] Clinical Trials Primer (must be completed within two weeks of first semester)

2. 4.0 credits in:

- [HLTH 5812](#) [0.0] Clinical Trials 1: Introduction
- [HLTH 5813](#) [0.0] Clinical Trials 2
- [HLTH 5814](#) [0.0] Assessment and Patient Safety for Clinical Trials
- [HLTH 5815](#) [0.0] Principles of Data Management and Analysis in Clinical Trials
- [HLTH 5816](#) [0.0] Government Regulatory Processes
- [HLTH 5817](#) [0.0] Government, Research Organizations, and Industry
- [HLTH 5818](#) [0.0] Ethics, Community and Patient Engagement
- [HLTH 5819](#) [0.0] Clinical Trials Protocols, Operations and Management

4.0

3. 0.5 credit from:

- [BIOC 4708](#) [0.5] Principles of Toxicology
- [CHEM 4305](#) [0.5] Environmental Chemistry and Toxicology
- [HLTH 5150](#) [0.5] Statistics for Health Sciences
- [HLTH 5151](#) [0.5] Principles of Epidemiology
- [HLTH 5350](#) [0.5] New Health Technologies
- [HLTH 5700](#) [0.5] Special Topics in Biostatistics and Epidemiology
- [HLTH 5704](#) [0.5] Special Topics in the Science of Disease
- [STAT 5602](#) [0.5] Analysis of Categorical Data
- [STAT 5603](#) [0.5] Reliability and Survival Analysis

0.5

Total Credits

4.5

M.Sc. Clinical Trials and Regulatory Affairs (practicum pathway - 6.0 credits)

Requirements:

1. 0.0 credit in:

HLTH 5101 [0.0]	Statistical Software and its Application to Health Sciences Primer (must be completed within two weeks of first semester)	
HLTH 5811 [0.0]	Clinical Trials Primer (must be completed within two weeks of first semester)	
2. 4.0 credits in:		4.0
HLTH 5812 [0.0]	Clinical Trials 1: Introduction	
HLTH 5813 [0.0]	Clinical Trials 2	
HLTH 5814 [0.0]	Assessment and Patient Safety for Clinical Trials	
HLTH 5815 [0.0]	Principles of Data Management and Analysis in Clinical Trials	
HLTH 5816 [0.0]	Government Regulatory Processes	
HLTH 5817 [0.0]	Government, Research Organizations, and Industry	
HLTH 5818 [0.0]	Ethics, Community and Patient Engagement	
HLTH 5819 [0.0]	Clinical Trials Protocols, Operations and Management	
3. 0.5 credit from:		0.5
BIOC 4708 [0.5]	Principles of Toxicology	
CHEM 4305 [0.5]	Environmental Chemistry and Toxicology	
HLTH 5150 [0.5]	Statistics for Health Sciences	
HLTH 5151 [0.5]	Principles of Epidemiology	
HLTH 5350 [0.5]	New Health Technologies	
HLTH 5700 [0.5]	Special Topics in Biostatistics and Epidemiology	
HLTH 5704 [0.5]	Special Topics in the Science of Disease	
STAT 5602 [0.5]	Analysis of Categorical Data	
STAT 5603 [0.5]	Reliability and Survival Analysis	
4. 1.5 credits in:		1.5
HLTH 5820 [0.0]	Clinical Trials Practicum	
Total Credits		6.0

New Resources

No New Resources

Summary

Add new program

Rationale

The Department of Health Sciences at Carleton University seeks to develop a Master of Science (MSc) Clinical Trials and Regulatory Affairs program to meet pressing needs in the healthcare research community, government and industry. This one-of a kind program will prepare students to design, carry out, manage and evaluate clinical trials for a wide variety of health products in different settings. At present there is no such graduate program in Ontario, so people enter this field in many ways: on-the-job training, undergraduate degree with a research focus, transfer from a research position, commercial training program, etc. This is far from optimal in terms of academic preparation, as our external consultations have taught us. Clinical trials are research studies performed on humans that are aimed at evaluating a medical, surgical, or behavioural intervention. They are the primary way that researchers establish if a new treatment, like a new drug or medical device (e.g. pacemaker) is safe and effective for use on people. According to Health Canada "The intent of a clinical trial is to research and gather information on a drug's dose, effectiveness and safety in humans. Trials are undertaken with informed and consenting human subjects according to good clinical practices. This provides a controlled environment where the procedures for drug administration and the evaluation of the results are closely monitored." Overall Goal This program will provide graduates with the necessary knowledge and skills to be effective practitioners in clinical trials and regulatory affairs. In keeping with Carleton's commitment to experiential learning, students will have several opportunities to practice what they learn

during the program with our partner agencies in the clinical trials and regulatory fields. These include a placement of four to six weeks in the HLTH 5813 Clinical Trials 2 course and a four-month practicum in HLTH 5820 Clinical Trials Practicum, the program's capstone course.

Transition/Implementation new program

Program reviewer
comments

Key: 2167

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:16 pm

Viewing: **HLTH 5811 : Clinical Trials Primer**

Last edit: 11/02/22 5:16 pm

Changes proposed by: sandrabauer

Calendar Pages
referencing this
course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing
this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:30 am
Martin Holcik
(martinholcik): Approved
for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved
for PRE GRAD FCC
3. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved
for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5811
Title	Clinical Trials Primer
Title (short)	Clinical Trials Primer

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.0
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Overview of the vast area of clinical trials of drugs and devices, and principles of informed consent, regulatory requirements, rigorous documentation, analysis, and reporting. Students will also work on certificates in biomedical ethics, good clinical practice, and others, for example from CITI Canada.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program
Course reviewer comments	

Key: 10685

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:18 pm

Viewing: **HLTH 5812 : Clinical Trials 1: Introduction**

Last edit: 11/02/22 5:18 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:30 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5812
Title	Clinical Trials 1: Introduction
Title (short)	Clinical Trials 1

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Fundamentals of trials of health products and different phases and types of clinical trials. Investigator vs. sponsor-initiated trials, different regulatory agencies, the use of randomization, blinding, registration regulatory requirements, rigorous documentation, and common trials.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program
Course reviewer comments	

Key: 10686

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:19 pm

Viewing: **HLTH 5813 : Clinical Trials 2**

Last edit: 11/02/22 5:19 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:30 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5813
Title	Clinical Trials 2
Title (short)	Clinical Trials 2

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	Practica or Placements (including Clinical Placements)
Course Description	Other trial designs, recruitment of patients, data collection and quality control, interim monitoring, audits, inspections, timelines. Includes a four to six-week placement at a clinical or regulatory site, CRO, or similar institution involved in clinical trials.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* Add new course
Rationale for new course	new program
Course reviewer comments	

Key: 10687

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:20 pm

Viewing: **HLTH 5814 : Assessment and Patient Safety for Clinical Trials**

Last edit: 11/02/22 5:20 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:31 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5814
Title	Assessment and Patient Safety for Clinical Trials
Title (short)	Assmt Patient Safety ClinTrial

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	Practica or Placements (including Clinical Placements)
Course Description	The importance of efficacy and safety measurements, biosamples, pharmacokinetics, pharmacodynamics, drug mechanism of action, reporting of harm, Data and Safety Monitoring Board, pharmacovigilance, consideration of special populations. Good clinical practice, good medical practice, and good laboratory practice.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* Add new course
Rationale for new course	new program

Course reviewer comments

Key: 10688

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:20 pm

Viewing: **HLTH 5815 : Principles of Data Management and Analysis in Clinical Trials**

Last edit: 11/02/22 5:20 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:31 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5815
Title	Principles of Data Management and Analysis in Clinical Trials
Title (short)	Data Mgt Analysis Clin Trials

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Randomization, biomarkers, endpoints, estimands, sample size requirements, random error and bias, multiple testing correction, intent-to-treat versus per-protocol, equipoise and stopping rules for trials, database development, validation and reporting/transferring, development of statistical analysis plans, considerations around missing data.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program

Course reviewer comments

Key: 10689

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:21 pm

Viewing: **HLTH 5816 : Government Regulatory Processes**

Last edit: 11/02/22 5:21 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:31 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:08 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5816
Title	Government Regulatory Processes
Title (short)	Govt Reg Proc

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Regulatory agencies (Health Canada, US Food and Drug Administration, European Medicines Agency) will be compared. Harmonization efforts of national drug approval agencies, timelines for an investigational New Drug Application including labeling, accelerated approval, breakthrough designation, orphan drugs, and biologics licence application.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program
Course reviewer comments	

Key: 10690

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:22 pm

Viewing: **HLTH 5817 : Government, Research Organizations, and Industry**

Last edit: 11/02/22 5:22 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:32 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:06 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:08 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5817
Title	Government, Research Organizations, and Industry
Title (short)	Govt, Rsrch Org & Industry

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Overview of regulatory requirements of pharmaceutical companies, contracting research organizations, and communication with regulatory agencies. Negotiation and collaboration between sectors, incentives such as FDA priority review vouchers, project management, manufacturing and distribution, phase IV post-marketing and continued monitoring, pharmacovigilance and post-marketing changes.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program

Course reviewer comments

Key: 10691

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:22 pm

Viewing: **HLTH 5818 : Ethics, Community and Patient Engagement**

Last edit: 11/02/22 5:22 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:32 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:08 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5818
Title	Ethics, Community and Patient Engagement
Title (short)	Ethcs Commun & Patient Engag

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Patient engagement, equipoise, informed consent, ethics board, monitoring, reporting/release of data in the literature, compassionate/expanded access; patient foundations, liaisons and advocates. Engaging with Indigenous communities and special populations. Considerations around translational research, generics, biosimilars, and labeling.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program

Course reviewer comments

Key: 10692

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:23 pm

Viewing: **HLTH 5819 : Clinical Trials Protocols, Operations and Management**

Last edit: 11/02/22 5:23 pm

Changes proposed by: sandrabauer

Calendar Pages referencing this course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:32 am
Martin Holcik
(martinholcik): Approved for HLTH ChairDir GR
2. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved for PRE GRAD FCC
3. 11/04/22 4:08 pm
Sandra Bauer
(sandrabauer): Approved for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5819
Title	Clinical Trials Protocols, Operations and Management
Title (short)	Clin Trials Prot Ops & Mgt

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	None
Course Description	Clinical protocols, electronic case report forms and guidelines, data management plan, monitoring plan, pharmacy manual, standard operating procedures, manual of operating procedures, delegation of authority logs and training logs. Leadership, logistics, budgeting.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	Seminar
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program
Course reviewer comments	

Key: 10693

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 11/02/22 5:17 pm

Viewing: **HLTH 5820 : Clinical Trials Practicum**

Last edit: 11/02/22 5:17 pm

Changes proposed by: sandrabauer

Calendar Pages
referencing this
course [Health Sciences](#)
[Health Sciences \(HLTH\)](#)

Programs referencing
this course [M.Sc. Clinical Trials and Regulatory Affairs](#)

In Workflow

1. **HLTH ChairDir GR**
2. **PRE GRAD FCC**
3. **GRAD FCC**
4. **GRAD FBoard**
5. **Future Cycle**
6. PRE SCCASP
7. SCCASP
8. Banner

Approval Path

1. 11/03/22 8:32 am
Martin Holcik
(martinholcik): Approved
for HLTH ChairDir GR
2. 11/04/22 4:07 pm
Sandra Bauer
(sandrabauer): Approved
for PRE GRAD FCC
3. 11/04/22 4:08 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD FCC
4. 11/16/22 10:19 am
Sandra Bauer
(sandrabauer): Approved
for GRAD FBoard

Effective Date	2023-24
Workflow	minormod
New Resources	
Level	Graduate
Course Code	HLTH
Course Number	5820
Title	Clinical Trials Practicum
Title (short)	Clinical Trials Practicum

Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	Practica or Placements (including Clinical Placements)
Course Description	Capstone credit course required for students in the practicum pathway. Experiential learning at a clinical site, regulatory site, CRO, or similar institution involved in clinical trials. Students will demonstrate the knowledge and skills gained and will present on their experience, efforts and lessons learned.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	*Practicum *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	*associated with NP MSc Clinical Trials and Regulatory Affairs* add new course
Rationale for new course	new program

Course reviewer comments

Key: 10694

[Preview Bridge](#)

Program Change Request

New Program Proposal

Date Submitted: 02/21/24 9:42 am

Viewing: **TBD-2245 : R-GR-ADMRQT M.Sc.
Clinical Trials and Regulatory Affairs**

Last edit: 02/21/24 12:28 pm

Last modified by: sandrabauer

[Changes proposed by: sandrabauer](#)

In Workflow

1. **HLTH ChairDir GR**
2. **SCI Dean**
3. **GRAD Dean**
4. **PRE GRAD FCC**
5. **GRAD FCC**
6. **GRAD FBoard**
7. **PRE SCCASP**
8. **SCCASP**
9. SQAPC
10. Senate
11. CalEditor

Approval Path

1. 02/21/24 10:24 am
Martin Holcik
(martinholcik): Approved
for HLTH ChairDir GR
2. 02/21/24 12:19 pm
Yiqiang Zhao
(yiqiangzhao): Approved
for SCI Dean
3. 02/21/24 12:23 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD Dean
4. 02/21/24 12:28 pm
Sandra Bauer
(sandrabauer): Approved
for PRE GRAD FCC
5. 02/21/24 1:17 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD FCC
6. 02/21/24 1:18 pm
Sandra Bauer
(sandrabauer): Approved
for GRAD FBoard
7. 02/21/24 1:33 pm
Sandra Bauer
(sandrabauer): Approved
for PRE SCCASP

Effective Date	2025-26
Workflow	majormod
Program Code	TBD-2245
Level	Graduate
Faculty	Faculty of Science
Academic Unit	Department of Health Sciences
Degree	
Title	R-GR-ADMRQT M.Sc. Clinical Trials and Regulatory Affairs

Program Requirements

Admission

M.Sc. Clinical Trials and Regulatory Affairs - Practicum pathway:

- 4-year (honours) bachelor degree or equivalent professional degree in a related discipline
- minimum B+ (77%) average over last 2 years of study (or last 20 one-term courses)
- one undergraduate course in statistics or equivalent (desirable)

M.Sc. Clinical Trials and Regulatory Affairs - Non-practicum pathway:

- in addition to the admission requirements listed above, non-practicum pathway applicants must possess two years of experience in clinical trials.

Applicants must submit their transcripts, a professional resume, two or three letters of recommendation, a statement of intent outlining their career goals and their alignment with the learning outcomes and degree level expectations of the program, and provide information about relevant work experience.

New Resources	No New Resources
Summary	Add admission requirements for MSc Clinical Trials and Regulatory Affairs
Rationale	New program
Transition/ Implementation	n/a
Program reviewer comments	<p>sandrabauer (02/21/24 1:17 pm): Approved on behalf of FGPA Programs and Planning, which approved the V1 containing the admission requirements.</p> <p>sandrabauer (02/21/24 1:18 pm): Approved on behalf of GFB, which approved the V1 containing the admission requirements.</p>



New Program Approval Volume II:

Faculty Curricula Vitarum

Clinical Trials and Regulatory Affairs
Master of Science

CURRICULUM VITAE

Edana Cassol

edana.cassol@carleton.ca

www.cassollab.ca

Department of Health Sciences, 3307 Health Sciences Building

Carleton University, Ottawa Ontario, K1S 5B6

(613)-530 2600 ext. 4462

EDUCATION

- 2005-2009 PhD, Cellular and Molecular Biology
Universita Vita-Salute San Raffaele (Italy)/Open University (England)
Dissertation: Mononuclear Phagocyte Activation and Its Role in HIV-1 Pathogenesis
- 2002-2004 MSc, Medical Science
University of Kwa-Zulu Natal (Durban, South Africa)
Dissertation: HIV-1 Replication, Immune Pathogenesis and Response to Therapy in Patients
Dually Infected with HIV Subtype C and HHV-8
- 1998-2002 BScH, Life Sciences
Queen's University (Kingston, Canada)

EMPLOYMENT

- 2022-present Co-Lead
Tissue Engineering and Material (TEAM) Hub, Carleton University, Ottawa ON
- 2022-present Affiliate Investigator
Bruyere Research Institute, Ottawa ON
- 2020-present Associate Professor
Department of Health Sciences, Carleton University, Ottawa ON
- 2020-present Associate Professor (cross appointed)
Department of Neuroscience, Carleton University, Ottawa ON
- 2017-present Principal Investigator,
Centre for Infection, Immunity and Inflammation (CI3), University of Ottawa
- 2015-2020 Extraordinary Instructor
Department of Immunology, University of Pretoria, Pretoria South Africa
- 2015-2020 Assistant Professor (cross appointed)
Department of Neuroscience, Carleton University, Ottawa ON
- 2014-2020 Assistant Professor
Department of Health Sciences, Carleton University, Ottawa ON
- 2010-2014 Postdoctoral Fellow
Dana-Farber Cancer Institute and Harvard Medical School, Boston MA
- 2009 Postdoctoral Fellow
Department of Immunology, University of Pretoria, Pretoria South Africa
- 2002 Research Intern
Enhancing Care Initiative, joint program between Harvard CFAR and
University of Kwa-Zulu Natal, Durban South Africa

AWARDS

CIHR Fellowship Award in the Area of Biomedical/Clinical HIV/AIDS Research
2010-2013

San Raffaele PhD Fellowship Award
2005-2007

Elizabeth Glaser Pediatric AIDS Foundation Summer Studentship Award
1999

CURRENT RESEARCH INTERESTS

Microorganisms manipulate the metabolism of infected cells to support their replication and survival in the host. Conversely, metabolic reprogramming also facilitates cellular activation and contributes to the development of antimicrobial immune responses. My research is focussed on understanding how the mitochondria contributes to the development of pathogen specific immune responses and how microbes subvert these processes to escape recognition.

Ongoing projects

- Characterization of unique features of mitochondrial reprogramming following innate immune recognition.
- Examining how metabolic reprogramming contributes to the fine tuning of antiviral immune responses to HIV and SARS-CoV-2.
- Evaluation of macrophage reprogramming to bacterial biofilms and their potential contribution to delayed wound healing.

PUBLICATIONS

Articles in refereed journals; Authors in bold represent students.

44. **Ahmed D, Al-Daraawi M** and E Cassol. Innate Sensing and Cellular Metabolism: Role in Fine Tuning Antiviral Immune Response. *Journal of Leukocyte Biology* 2022. Submitted.

43. Caballero RE, Dong SXM, Gajanayaka N, Ali H, Cassol E, Cameron WD, Korneluk R, Tremblay MJ, Angel JB, Kumar A. Role of RIPK1 in SMAC mimetics-induced apoptosis in primary human HIV-infected macrophages. *Sci Rep*. 2021 Nov 25;11(1):22901. doi: 10.1038/s41598-021-02146-w.

42. **Ahmed D**, Humphrey A, **Roy D**, **Sheridan M**, Jaworski A, Edwards A, **Donner J**, Abizaid A, Willmore W, Kumar A, Golshani A, and Cassol E. HIF-1 α regulation of pro-inflammatory cytokine production following TLR3 engagement is dependent on viral nucleic acid length and glucose availability. *J Immunol*. 2021 Dec 1;207(11):2813-2827. doi: 10.4049/jimmunol.2001282.

41. da Cruz Nizer W, Inkovskiy V, **Versey Z**, Stempel N, Cassol E and J Overhage. Oxidative stress response in *Pseudomonas aeruginosa*. *Pathogens*. 2021. *Pathogens*. 2021 Sep 14;10(9):1187. doi: 10.3390/pathogens10091187.

40. Ali H, Dong SXM, Gajanayaka N, Cassol E, Angel JB, Kumar A. Selective Induction of Cell Death in Human M1 Macrophages by Smac Mimetics Is Mediated by cIAP-2 and RIPK-1/3 through the Activation of mTORC. *J Immunol*. 2021 Nov 1;207(9):2359-2373. doi: 10.4049/jimmunol.2100108.

39. Gajanayaka N, Dong SXM, Ali H, Iqbal S, Mookerjee A, Lawton DA, Caballero RE, Cassol E, Cameron DW, Angel JB, Crawley AM, Kumar A. TLR-4 agonist induces IFN- γ production selectively in pro-inflammatory human M1 macrophages through the PI3K-mTOR and JNK-MAPK activated p70S6K pathway. *Journal of Immunology*. 2021. *J Immunol*. 2021 Sep 22; ji2001191. doi: 10.4049/jimmunol.2001191.

38. Ali H, Caballero R, Dong SXM, Gajayaka N, Angel JB, Cassol E, Kumar A. Selective induction of cell death in human M1 macrophages by Smac mimetics is mediated by cIAP-2 and RIPK-1/3 through the

activation of mTORC. *Journal of Immunology*. 2021. *J Immunol*. 2021 Sep 24;ji2100108. doi: 10.4049/jimmunol.2100108.

37. Allen, CH, **Ahmed D**, Raiche-Tanner O, Chauhan V, Mostaco-Guidolin L, Cassol E and Murugkar S. Label-free two-photon imaging of mitochondrial activity in murine macrophages stimulated with bacterial and viral ligands. *Scientific Reports* 2021. Jul 7;11(1):14081. doi: 10.1038/s41598-021-93043-9.

36. Dong SXM, Vizeacoumar FS, Bhanumathy KK, Alli N, Gonzalez-Lopez C, Gajanayaka N, Caballero R, Ali H, Freywald A, Cassol E, Angel JB, Vizeacoumar FJ, Kumar A. Identification of novel genes involved in apoptosis of HIV-infected macrophages using unbiased genome-wide screening. *BMC Infect Dis*. 2021 Jul 7;21(1):655. doi: 10.1186/s12879-021-06346-7.

35. **Versey Z**, da Cruz Nizer WS, **Russell E**, Zigic S, DeZeeuw KG, Marek JE, Overhage J and Cassol E. Biofilm-Innate Immune Interface: Contribution to Chronic Wound Formation. *Front. Immunol.*, 09 April 2021. <https://doi.org/10.3389/fimmu.2021.648554>

34. Ali H, Caballero R, Dong SXM, Gajayaka N, Vranjkovic A, Ahmed D, Iqbal S, Crawley AM, Angel JB, Cassol E, and Kumar A. Selective killing of human M1 macrophages by Smac mimetics alone and M2 macrophages by Smac mimetics and caspase inhibition. *J Leukoc Biol*. 2021 Jan 6. doi: 10.1002/JLB.4A0220-114RR.

33. White M, Feucht UD, Duffley E, Molokoane F, Durandt C, Cassol E, Rossouw T, Connor KL. Does in utero HIV exposure and the early nutritional environment influence infant development and immune outcomes? Findings from a pilot study in Pretoria, South Africa. *Pilot Feasibility Stud*. 2020 Dec 11;6(1):192.

32. Dong SXM, Caballero R, Ali H, **Roy DLF**, Cassol E, Kumar A. Transfection of hard-to-transfect primary human macrophages with Bax siRNA to reverse Resveratrol-induced apoptosis. *RNA Biol*. 2020 Jun;17(6):755-764. doi: 10.1080/15476286.2020.1730081.

31. **Ahmed D**, **Roy D**, Jaworski A, Edwards A, Abizaid A, Golshani A and E Cassol. Differential modulation of Complex III expression in Poly(I:C)-stimulated macrophages amplifies interferon signaling and responses. *Sci Rep*. 2019 Dec 11;9(1):18801.

30. **Ahmed D**, **Roy D** and E Cassol. Examining Relationships between Metabolism and Persistent Inflammation in HIV Patients on Antiretroviral Therapy. *Mediators Inflamm*. 2018 Sep 27;2018:6238978.

29. **Volesky KD**, **Maki A**, **Scherf C**, **Watson L**, **Van Ryswyk K**, Fraser B, Weichenthal SA, **Cassol E**, Villeneuve PJ. The influence of three e-cigarette models on indoor fine and ultrafine particulate matter concentrations under real-world conditions. *Environ Pollut*. 2018 Dec;243(Pt B):882-889.

28. **Ahmed D**, Jaworski A, Willmore W, Golshani A and E Cassol. Transcriptional profiling identifies extensive metabolic rewiring of human and mouse macrophages during early type I interferon responses. *Mediators Inflamm*. 2018 Jul 25;2018:5906819.

27. Kazmirchuk T, Dick K, Burnside D, Barnes B, Moteshareie H, Hajikarimlou M, Omidi K, **Ahmed D**, Low A, Lettl C, Hooshyar M, Schoenrock A, Pitre S, Babu M, Cassol E, Samanfar B, Wong A, Dehne K, Green J and A Golshani. Designing Anti-Zika Virus Peptides Derived from Predicted Human-Zika Virus Protein-Protein Interactions. *Journal of Computer-Aided Molecular Design*. 2017. Dec;71:180-187.

26. **Ahmed D** and E Cassol. Role of Immunometabolism in Type I IFN responses. *Cancer Letters*. 2017 Nov 28;409:20-29.

25. **Volesky K**, **Maki A**, **Scherf C**, **Watson L**, Cassol E and P Villeneuve. Characteristics of electronic cigarettes users and their perceptions of benefits, harms, and risks: results from a survey in Ottawa, Canada. *Health Promotion and Chronic Disease Prevention in Canada*. 2016 Jul; 36(7):130-8.

24. Cassol E, Rossouw T, Malfeld S, **Mahasha P**, Slavik T, Seebregts C, Bond R, du Plessis J, Janssen C, Roskams T, Nevens F, Alfano M, Poli G and S van der Merwe. CD14⁺ macrophages that accumulate in the colon of African AIDS patients express pro-inflammatory cytokines and are responsive to lipopolysaccharide. *BMC Infectious Diseases* 2015 Oct 17; 15:430.
23. Cassol E, Misra V, Dutta A, Morgello S, Kirk G, Mehta S, and Gabuzda D. Altered monoamine and acylcarnitine metabolism in HIV-positive and HIV-negative subjects with depression. *J Acquir Immune Defic Syndr*. 2015 May 1; 69(1):18-28.
22. Malherbe G, Steel HC, Cassol S, de Oliveira T, Seebregts CJ, Anderson R, Cassol E, and Rossouw TM. Circulating biomarkers of immune activation distinguish viral suppression from nonsuppression in HAART-treated patients with advanced HIV-1 subtype C infection. *Mediators Inflamm*. 2014:198413
21. Cassol E, Misra V, Dutta A, Morgello S, and Gabuzda D. CSF Metabolomics Reveals Altered Waste Clearance and Accelerated Aging in HIV Patients with Neurocognitive Impairment. *AIDS*. Jul 17, 2014; 28(11): 1579–1591.
20. Cassol E, Misra V, Morgello S, and Gabuzda D. Applications and Limitations of Inflammatory Biomarkers for Studies on Neurocognitive Impairment in HIV Infection. *J Neuroimmune Pharmacol*. 2013 Dec; 8(5):1087-97.
19. Cassol E, Malfeld S, **Mahasha P**, Bond R, Slavik T, Seebregts C, Poli G, Cassol S, van der Merwe S, Rossouw T. Impaired CD4⁺ T cell restoration in the small vs. large intestine of HIV-1+ South Africans receiving combination antiretroviral therapy. *J Infect Dis*. 2013 Oct 1;208(7):1113-22.
18. Cassol E, Misra V, Holman A, Kamat A, Morgello S, and Gabuzda D. Plasma metabolomics identifies lipid abnormalities linked to markers of inflammation, microbial translocation, and hepatic function in HIV patients receiving protease inhibitors. *BMC Infect Dis*. 2013 May 4;13:203.
17. Cassetta L, Kajaste-Rudnitski A, Coradin T, Saba E, Chiara GD, Barbagallo M, Graziano F, Alfano M, Cassol E, Vicenzi E, Poli G. M1 polarization of human monocyte-derived macrophages restricts pre-and post-integration steps of HIV-1 replication. *AIDS*. 2013 Apr 26. (Epub ahead of print).
16. Cassol E, Cassetta L, Rizzi C, Alfano M, Poli G. Dendritic Cell-Specific ICAM-3 Grabbing Nonintegrin mediates HIV-1 infection of and transmission by M2a-polarized macrophages in vitro. *AIDS* 2013; 27(5):707-16.
15. Kamat A, Misra V, Cassol E, Ancuta P, Yan Z, Li C, Morgello S, Gabuzda D. A plasma biomarker signature of immune activation in HIV patients on antiretroviral therapy. *PLoS One* 2012; 7(2):e30881.
14. Cassetta L, Cassol E, Poli G. Macrophage polarization in health and disease. *Scientific World Journal* 2011; 11:2391-402.
13. Cassol E, Rossouw T, Seebregts C, Cassol S. Microbial translocation: A marker of advanced HIV-1 infection and a predictor of treatment failure? *J Infect Dis* 2011;203(5):747-48.
12. Cassol E, Malfeld S, Mahasha P, van der Merwe S, Cassol S, Seebregts C, Alfano M, Poli G, Rossouw T. Persistent microbial translocation and immune activation in HIV-1-infected South Africans on combination antiretroviral therapy (cART). *J Infect Dis* 2010;202(5):722-33.
11. Cassol E, Cassetta L, Alfano M, Poli G. Macrophage polarization and HIV-1 infection. *J Leukoc Biol* 2010;87:599-608.
10. Cassol E, Cassetta L, Rizzi C, Alfano M, Poli G. M1 and M2a polarization of human monocyte-derived macrophages inhibits HIV-1 replication by distinct mechanisms. *J Immunol* 2009; 182:6237-46.
9. Mosam A, Hurkchand HP, Cassol E, Page T, Cassol S, Aboobaker J, Dawood H, Friedland GH, Coovadia HM. Increased prevalence and severity of HIV-1-associated Kaposi's sarcoma among young women in South Africa. *Int J STD AIDS* 2008;19:400-5.

8. Elia C, Cassol E, Sidenius N, Blasi F, Castagna A, Poli G, Alfano M. Inhibition of HIV replication by plasminogen activator is dependent upon vitronectin-mediated cell adhesion. *J Leukoc Biol* 2007; 82(5):1212-20.
7. Mosam A, Sathar MA, Dawood H, Cassol E, Esterhuizen TM, Coovadia HM, Effect of GB virus C co-infection on response to generic HAART in African patients with HIV-1 clade C infection. *AIDS* 2007;21(10):1377-1379.
6. Bihl F, Mosam A, Henry LN, Chrisholm JV, Dollard S, Gumbi P, Cassol E, Page T, Mueller N, Kiepiela P, Martin JN, Coovadia HM, Scadden DT, Brander C. Kaposi's sarcoma-associated herpesvirus-specific immune reconstitution and antiviral effect of combined HAART-chemotherapy in HIV clade C-infected individuals with Kaposi's Sarcoma. *AIDS* 2007;21(10) 1245-1252.
5. Cassol E, Alfano M, Biswas, P, Poli G. Monocyte-derived-macrophages and myeloid cell lines as targets of HIV-1 replication and persistence. *J Leukoc Biol* 2006;80(5):1018-30.
4. Cassol E, Page T, Mosam A, Friedland G, Jack C, Lalloo U, Kopetka J, Patterson B, Esterhuizen T, Coovadia HM. Therapeutic response of HIV-1 subtype C in African patients co-infected with either Mycobacterium Tuberculosis, or HHV-8. *J Infect Dis* 2005; 191(13):324-32.
3. Cassol E, Mosam A, Friedland G, Coovadia HM and the START and HIV-1/KS Study Groups. Therapeutic response of HIV-1 Subtype C in African patients. *J Infect Dis* 2005: 192:187.
2. Mosam A, Goga Y, Thejpal R, Cassol E, Page T, Cassol S, Aboobaker J, Coovadia HM. Lymph-adenopathy, pneumonia and HIV – a common trio, and uncommon outcome. *Lancet* 2005;365: (9455)266.
1. Mosam A, Cassol E, Page T, Bodasing U, Cassol S, Dawood H, Friedland GH, Scadden DT, Aboobaker J, Jordaan JP, Lalloo U, Esterhuizen TM, Coovadia HM. Generic antiretroviral efficacy in AIDS associated Kaposi's sarcoma in sub-Saharan Africa. *AIDS* 2005; 19(4):441-3.

Conference presentations

25. **Versey Z, Ahmed D**, Beaulieu C, **Sheridan M-E**, DeZeeuw K.G, Marek J.E, Overhage J, Cassol E. Exploring interactions between macrophages & bacterial biofilms: Implications for cellular metabolism and wound healing. Life Sciences Day, Carleton University. May 10, 2022. Ottawa, Ontario. Poster Presentation (awarded first prize).
24. **Ahmed D, Roy D**, Jaworski A, Edwards A, Abizaid A, Golshani A and E Cassol. Differential modulation of Complex III expression in Poly(I:C)-stimulated macrophages amplifies interferon signaling and responses. Immunometabolism, Metaflammation and Metabolic Disorders. Keystone Symposia. April 14-18, 2019. Vancouver, British Columbia. Oral presentation.
23. **Ahmed D**, Jaworski A, **Roy D**, Abizaid A, Edwards A, Golshani A, and E Cassol. Antibacterial and antiviral immune responses are associated with differential reprogramming of mitochondrial function in mouse bone marrow derived macrophages. Metabolism of Infectious Diseases Symposium. June 12-15, 2018. Fort Collins, Colorado. Oral Presentation.
22. **Ahmed D, Roy D** and E Cassol. Mitochondrial reprogramming contributes to monocyte activation and inflammatory cytokine production in HIV infection. 27th Annual Canadian Conference on HIV/AIDS Research. April 26-29, 2018. Vancouver, British Columbia.
21. **Ahmed D**, Jaworski A, Willmore W, Golshani A and E Cassol. Transcriptional Profiling Identifies Altered Redox Balance in Interferon-stimulated Human versus Mouse Macrophages. Integrating Metabolism and Immunity, Keystone Symposia on Molecular and Cellular Biology. May 29- June 2, 2017. Dublin Ireland.
20. **Handley V, Koudieh D, Marshall A, Mirza F, Ozzoude C**, Cassol E and I Knezevic. GROWING GREEN: Developing an Institutional Garden for The Ottawa Hospital. Carleton University Life Science Day. May 5 2017. Carleton University, Ottawa Ontario
19. **Ahmed D**, Jaworski A, Willmore W, Golshani A and E Cassol. Transcriptional Profiling Identifies Altered Redox Balance in Interferon-stimulated Human versus Mouse Macrophages. Data Day 4.0. March 29, 2017. Carleton University, Ottawa Ontario.

18. Cassol E, Misra V, Mukerji S., Morgello S, Kirk G, Mehta S, and Gabuzda D. Early markers of renal dysfunction among cocaine users with HIV and HCV infection. 23th Conference on Retroviruses and Opportunistic Infections. February 22-25, 2016. Boston, USA.
17. Cassol E. Unbiased Reconstruction of Metabolic Networks Associated with IFN Responses in Chronic Viral Infections. CIHR Institute of Infection and Immunity New Investigator Forum. May 29-31, 2015. Quebec City, Quebec.
16. **Maki A, Scherf C, Volesky K, Watson L**, Weichenthal S, Cassol E, & Villeneuve P. Characteristics of electronic cigarette users and their perceptions of benefits and harms: results from a survey in Ottawa, Ontario. Canadian Society of Epidemiology and Biostatistics. June 1-4, 2015. Toronto, Ontario.
15. Cassol E, Misra V, Morgello S, Kirk G, Mehta S, and Gabuzda D. Altered Monoamine and Acylcarnitine Metabolites in HIV Patients with Depression. 22th Conference on Retroviruses and Opportunistic Infections. February 23-26, 2015. Seattle, USA.
14. Cassol E, Misra V, Dutta P, Morgello S, and Gabuzda D. CSF Metabolomics Reveals Altered Waste Clearance and Accelerated Aging in HIV Patients with HAND. 21th Conference on Retroviruses and Opportunistic Infections. March 3-6, 2014. Boston, USA. (oral presentation, received Young Investigator Award)
13. Cassol E, Misra V, Morgello S, and Gabuzda D. Augmented IFN Responses and Inflammation Associated with Altered Tryptophan and Adrenal Steroid Metabolism in HIV Patients on ART with Cocaine Use. 20th Conference on Retroviruses and Opportunistic Infections. Mar 3-6, 2013. Atlanta, USA (received Young Investigator Award).
12. Cassol E, Misra V, Holman A, Kamat A, Morgello S, and Gabuzda D. Identification of Hepatic and Mitochondrial Pathways Linked to Lipid Abnormalities in HIV Patients on Suppressive ART through Metabolomic Profiling. 19th Conference on Retroviruses and Opportunistic Infections. Mar 5-8, 2012. Seattle, USA (oral presentation, received Young Investigator Award).
11. Cassol E, Misra V, Holman A, Kamat A, Morgello S, and Gabuzda D. Metabolomic Analysis of Plasma from HIV-infected Individuals on Suppressive ART Reveals Alterations in Lipid and Amino Acid Catabolism Associated with Immune Dysfunction. 18th Conference on Retroviruses and Opportunistic Infections. Feb 27- Mar 2, 2011. Boston, USA (received Young Investigator Award).
10. Cassol E, Cassetta L, Alfano M, Poli G. Selective Up-regulation of DC-SIGN in M2a Polarized Macrophages Facilitates in vitro HIV-1 Infection and Transmission. 18th Conference on Retroviruses and Opportunistic Infections. Feb 27- Mar 2, 2011. Boston, USA.
9. Cassol E, Malfeld S, Rossouw T, Cassol S, van der Merwe S. Activation of intestinal macrophages is associated with increased control of HIV-1 replication and enhanced microbial translocation in African AIDS patients. 14th International Congress of Mucosal Immunology, Boston, Mass. July 5-9, 2009 (oral presentation; abstract published in *Mucosal Immunology* 2009; 2(S1); 80).
8. Cassol E, Alfano M, Poli G. M1 and M2 Monocyte-Derived-Macrophages (MDM) show a decreased capacity to support productive CCR5-dependent HIV-1 infection. *The Macrophage: Homeostasis, Immunoregulation and Disease*, Keystone, Colorado, Apr 11-16th, 2007 (received Keystone Scholarship)
7. Cassol E, Alfano M, Poli G. M1 and M2 activation of macrophages. Results in differential susceptibility to R5 and X4-tropic HIV-1 infection. XVI International AIDS Conference, Toronto, Ontario, Canada, August 13-18, 2006.
6. Cassol E, Alfano M, Poli, Janse van Rensburg E, Cassol S, Mosam A, Coovadia HM. Correlations Between Immunological Parameters and Treatment-Induced Clearance of HIV-1 Intracellular RNA from Monocyte and T-Cell Reservoirs: Implications for Immune-Based Enhancement of Therapeutic Efficacy. Second International Workshop on HIV Persistence during Therapy. West Indies, December 2005 (oral presentation)

5. Cassol E, Alfano M, Poli G, Janse van Rensburg E, Cassol S, Mosam A, Coovadia H. Dynamics of HIV-1 RNA decay in CD14+CD16+ monocytes following combined nucleoside/non-nucleoside therapy of South African patients with advanced subtype C infection: A comparison of residual virus in monocyte vs. T-cell reservoirs. 6th International Workshop on HIV, Cells of Macrophage/Dendritic Lineage and Other Reservoirs, Varenna, Italy, October 5-7, 2005.
4. Cassol E, Alfano M, Poli G, Janse van Rensburg E, Cassol S, Mosam A, Coovadia H. Correlations between immunological parameters and treatment-induced clearance of HIV-1 intracellular RNA from monocyte and T-cell reservoirs: Implications for immune-based enhancement of therapeutic efficacy. 4th National Conference of the Società Italian Immunologia, Immunologia Clinica e Allergologia, Brescia, Italia, July 8-11, 2005.
3. Cassol E, Coutoudis A, Page T, Coovadia HM, Cassol S. Characterization of productive HIV-1 infection in breast milk of African women from KwaZulu-Natal, South Africa. XV International AIDS Conference, Bangkok, Thailand, 2004.
2. Cassol E, Page T, Mosam A, Dwyer E, Friedland G, Cassol S, Coovadia HM. Antiretroviral treatment of African patients infected with HIV-1 subtype C: Suppression of viral replication in CD4+ CD45RO+ and CD14+CD16+ reservoirs is predictive of immunological recovery and clinical outcome. XV International AIDS Conference, Bangkok, Thailand, 2004.
1. Cassol E, Page T, Mosam A, Jack C, Friedland G, Cassol S, Coovadia HM. Therapeutic response of HIV-1 subtype C in African patients co-infected with Mycobacterium tuberculosis of HHV-8. XV International AIDS Conference, Bangkok, Thailand, 2004 (oral presentation).

OTHER PRESENTATIONS

Invited Presentations

Life Sciences Day (May 10, 2022)

Carleton University

Title: Metabolic regulation of antimicrobial immune responses: Implications for novel immunotherapies

The Scientist Webinar Series (May 21, 2019).

Systems Immunology: Understanding Responses to Vaccination and Infection

Title: Using systems immunology to understand innate immune dysfunction in HIV infection

CRCHUM Seminar Series (September 2018)

Centre de recherche du Centre hospitalier de l'Université de Montréal (CRCHUM)

Title: Role of immunometabolism in driving innate immune dysfunction in HIV infection

The Metabolism of Infectious Disease Symposium (June 2018)

Colorado State University

Title: Role of immunometabolism in driving innate immune dysfunction in HIV infection

OHRI Seminar Series (November 2014)

General Campus. 501 Smyth Road. Ottawa, ON.

Title: Metabolic abnormalities linked to chronic inflammation and the development of age-associated comorbidities in HIV patients on ART

EDITORIAL RESPONSIBILITIES

Reviewer

AIDS

AIDS Reviews

BMC Infectious Diseases

British Journal of Pharmacology

eBioMedicine

eLife

Frontiers in Immunology

Journal of the International AIDS Society

PLoS Neglected Tropical Diseases

PLoS ONE
 Mediators of Inflammation
 South African Medical Journal

Editor

Pathogens 2021-2022
 Special Issue Co-Editor
 Topic: Chronic wound infections

Frontiers Immunology 2021-2022
 Special Issue Editor
 Topic: Systems biology approaches to study immunometabolism in macrophages

BioChem 2021
 Editorial Board Member

Grant Review

Canadian Institutes of Health Research 2021
 Team Grant: Team Grants: Preparation to Trial in Inflammation for Chronic Conditions

Health Research Board (Ireland) 2019
 Investigator Led Projects 2019

Medical Research Council (UK) 2018
 UK Research and Innovation Future Leaders Fellowship

Canadian Institutes of Health Research 2017-2018
 Operating Grant: HIV/AIDS Comorbidities Prevention and Healthy Living (2017)

Canada Foundation for Innovation 2018
 John R. Evan Leaders Fund

Medical Research Council (UK) 2017
 Newton Fund UK-Thailand Joint Health Research Call

Canadian Institutes of Health Research 2016-2017
 Planning and Dissemination for Institute for Infection and Immunity

South African National Science Foundation 2014-2016

FUNDING

Organization	Competition	Title	Amount	Dates	Role
SUBMITTED FUNDING					
JP Bickell Foundation	Medical Research Grant	Connecting Inflammation and Fibrosis: Understanding the Effect of Abnormal Microenvironment on Cellular Responses and its Importance for Asthma	\$77,480	1 year (2022-2023)	Co-principal investigator (co-PI: Dr. L. Mostaco-Guidolin)
CIHR	Project Grant	Targeting the mitochondria to improve the therapeutic efficacy of	\$880,000	5 years (2023-2028)	Principal investigator (co-applicants: Dr. L. Mostaco-Guidolin, Dr.

		TLR agonists in aging populations			J. Overhage, Dr. B. Akache, Dr. H. Snyman)
CIHR	Dissemination Grant	Tissue Engineering and Applied Materials (TEAM) Hub: Accelerating translation 3D bioprinted tissue models to therapeutics for age-associated and chronic diseases	\$10,000	1 year (2022-2023)	Principal investigator (co-PI: Dr. L. Mostaco-Guidolin, co-applicants: Dr. J. Overhage, Dr. A. Harris, Dr. S. Murugkar, Dr. W. Willmore)
CURRENT FUNDING					
MITACS	Accelerate	Targeting tumour associated macrophages with vaccinia virus to promote anti-tumour immune responses	\$557,000	4 years (2022-2026)	Principal investigator (Industry Partner: Turnstone Biologics)
NFRF	Exploration	From physics to biology: Connecting cellular-level energy deposition with biological response in radiation medicine	\$250,000	2 years (2022-2024)	Collaborator (PI: Rowan Thomson, Co-applicants: Dr. S. Murugkar, Dr. S. Dang, Dr. A. Jirasek, Dr. J. Andrews)
Bruyère Academic Medical Organization	Innovation Grant	Why won't my wound heal? Targeting immune-microbe interactions to improve outcomes in patients with pressure injuries	\$107,500	2 years (2022-2024)	Co-investigator (co-PI: Dr. J. Marek, Dr. K. DeZeeuw, Dr. J. Overhage)
Bruyère Academic Medical Organization	Incentive Grant	What types of chronic wounds do diabetic patients develop?	\$17,000	1 year (2022-2023)	Co-investigator (co-PI: Dr. J. Marek, Dr. K. DeZeeuw, Dr. J. Overhage)
Natural Sciences and Engineering Research Council of Canada	Discovery Grant	Mitochondrial instruction of antiviral immune responses in macrophages	\$162,500 CAD	5 years (2019-2024)	Principal investigator
Bruyère Academic Medical Organization	Incentive Grant	Targeting Macrophage-Microbiome Interactions to Improve Wound Healing. A Pilot Study.	\$18,250 CAD	1 year (2020-2021)	Co-investigator (co-PI: Dr. J. Marek, Dr. K. DeZeeuw, Dr. J. Overhage)
Carleton University Research Office	Multidisciplinary Research Catalyst Fund	Multidisciplinary Tissue Engineering Cluster	\$40,000 CAD	1 year (2021-2022)	Co-principal investigator (co-PI: Dr. L. Mostaco-Guidolin, Dr. S. Murugka, Dr. W. Willmore)
PAST FUNDING					
Carleton University Research Office	COVID-19 Rapid Research Response Grants	SARS-CoV-2-host interactions: Implications for secondary bacterial co-infections	\$12,000 CAD	2 years (2020-2022)	Co-principal investigator (co-PI: Dr. J. Overhage, Dr. B. Akache)
Carleton University Research Office	International Research Seed Grant	Understanding how host-pathogen interactions contribute to chronic wound formation	\$10,000 CAD	2 years (2020-2022)	Co-principal investigator (co-PI: Dr. J. Overhage, Dr. D. Pletzer)

Canada Foundation for Innovation	Exceptional Opportunities Fund – COVID-19	Infrastructure for Research on the Molecular Biology of SARS-CoV-2	\$250,000 CAD	1 year (2020-2021)	Co-principal investigator (co-PI: Dr. A. Wong, K. Biggar, A. Golshani)
NSERC	RTI	Acquisition of an automated live cell imaging platform.	\$150,000 CAD	1 year (2020)	Co-applicant (PI: Dr. M. Holcik)
Canadian Institutes of Health Research	Planning and Dissemination Grant	Improving our understanding of HIV exposure on the health and well-being of mothers and infants: the Siyakhula collaborative	\$18,148 CAD	1 year (2018-2019)	Co-applicant (PI: Dr. K. Connor)
International AIDS Society	Collaborative Initiative for Paediatric HIV Education and Research (CIPHER) Grant Programme	Assessment of factors impacting on fetal and infant immunity and growth in HIV and antiretroviral-exposed uninfected children	\$149,793 USD	3 years (2017-2020)	Co-investigator (PI: Dr. U. Feucht)
Canadian Institutes of Health Research	CIHR Fellowship Award in the Area of Biomedical/Clinical HIV/AIDS Research	Reconstruction of Regulatory Networks Mediating Persistent Inflammation in HIV Infection	\$150,000 CAD	3 years (2010-2013)	Fellowship
Carleton University Research Office	Development Grant	Understanding how interactions between microbial communities and tissue macrophages contribute to delayed wound healing	\$10,000 CAD	1 years (2019-2020)	Co-principal investigator (co-PI: Dr. J. Overhage)
Carleton University Research Office	Development Grant	Targeting mitochondria to improve immune function on antiretroviral therapy	\$10,000 CAD	1 year (2017-2018)	Principal investigator
Carleton University	International Research Seed Grant	The impact of maternal and infant HIV status and the early life environment on immune system function and development in children.	\$6,000 CAD	1 year (2016-2017)	Co-Principal Investigator (co-PI: Dr. K. Connor)
Carleton University	Development Grant	Reprogramming Lipid Metabolism to Regulate Antiviral Immune Responses	\$10,000 CAD	1 year (2015-2016)	Principal Investigator

OVERVIEW OF STUDENT SUPERVISIONS

Undergraduate students

Type	Student Level	In progress	Completed
Dean Summer Research Internship (DSRI)	First Year	0	8
Health Sciences Summer Research Internship (HSRI)	Second and Third	0	6
NSERC USRA	All years	1	2
Directed Studies	Third or Fourth	0	8

(HTLH4901 or equivalent)			
Research Essay (BIOC 4907 or equivalent)	Fourth	0	1
Science Journalism Independent Project (NSCI 4901)	Fourth	0	1
Thesis (HTLH 4910 or equivalent)	Fourth	1	10

Thesis based graduate students

Type	In progress	Completed
MSc	3	2
PhD	2	1

Graduate Student Committees

Type	In progress	Completed
Thesis Advisory Committee	3	4
Thesis Examination Committee	0	7
Chair, Thesis Examination Committee	0	1

CURRENT SUPERVISIONS

Postdoctoral Fellows

Duale Ahmed

Department of Health Sciences, Carleton University

Started: January 2021 (co-supervised with Dr. Martin Holcik)

PhD Students

Mary-Elizabeth Sheridan

Department of Health Sciences, Carleton University

Enrolled in PhD: May 2021 (transfer from MSc)

Expected date of completion: December 2024

Project: Contribution of mitochondrial in driving inflammation in response to SARS-CoV-2

Robyn Skillings

Department of Health Sciences, Carleton University

Enrolled in PhD: January 2022

Expected date of completion: December 2025

Project: Understanding mechanisms of VACV reprogramming of TAM function

MSc Students

Zoya Versey

Department of Health Sciences, Carleton University

Enrolled in MSc: September 2020 (co-supervised with Dr. Joerg Overhage)

Expected date of completion: August 2022

Project: Exploring interactions between macrophages and bacterial biofilms: Implications for cellular metabolism and wound healing.

Fahad Kabir

Department of Health Sciences, Carleton University
Enrolled in MSc: January 2021 (co-supervised with Dr. Joerg Overhage)
Expected date of completion: December 2022
Project: Investigation the chronic wound microbiome

Charis McPherson
Department of Health Sciences, Carleton University
Enrolled in MSc: September 2021 (co-supervised with Dr. Bassel Akache)
Expected date of completion: August 2023
Project: Improving efficacy of SLA archaeosome adjuvants for vaccines

Undergraduate Students

Malak Al Daraawi
Thesis Student, Department of Health Sciences, Carleton University
Title: Testing the effects of diverse TLR9 ligands on macrophage metabolic reprogramming

Sara Hassan
NSERC USRA, Department of Neuroscience, Carleton University
Title:

COMPLETED SUPERVISIONS

Thesis Programs

Alex Wiseman
Department of Neuroscience, Carleton University
Enrolled in MSc: September 2018 (co-supervised with Dr. Alfie Abizaid)
Completion: August 2021
Project: Role of gherlin in regulating inflammatory responses in macrophages.

Duale Ahmed
Department of Biology, Carleton University
Started: September 2016 (co-supervised with Dr. Ashkan Golshani)
Completion: January 2021
Project:

David Roy
Department of Health Sciences, Carleton University
Enrolled in MSc: September 2017
Completed Degree: August 2019
Project: Impact of antiretroviral drugs on mitochondrial and immune function in macrophages.

Health: Science Technology and Policy Program

Venika Christophe, Laura Salter, Sarah Singh
HSTP collaborative research project
Started: September 2017
Will be completed: April 2019
Project: Ticks and Lyme disease in Eastern Ontario: assessing public understanding and geographic information system mapping

Vanessa Handley, Dania Koudieh, Alex Marshall, Fatimah Mirza and Charles Ozzoude
HSTP collaborative research project (co-supervised with Dr. Irena Knezevic)
Started: June 2016
Will be completed: April 2017
Project: Creating a Sustainable and Feasible Institutional Garden Program at The Ottawa Hospital

Kyle Dwyer, Maire-Claire Flores-Pajot, Jodie Lawlor, Jillian McGivern and Emma Pagato
HSTP collaborative research project (co-supervised with Dr. Susan Aitken and Irena Knezevic)

Started: June 2015
Completed: April 2016
Project: Harvesting Health: Investigating the Therapeutic Effects of Gardens

Anthony Maki, Christopher Scherf, Karena Volesky and Louis Watson
HSTP collaborative research project (co-supervised with Dr. Paul Villeneuve)
Started: June 2014
Completed: April 2015
Project: Electronic cigarette users and the impact of e-cigarettes on indoor air quality

Ramona Alwis, Simoneta Azoug-Boneault, Kevin Ho, Mandip Maheru and Alex Maisonneuve
HSTP collaborative research project (co-supervised with Dr. Paul Villeneuve)
Started: June 2014
Completed: April 2015
Project: Developing an influenza vaccine hesitant profile and examining a novel multimedia, social based intervention on influenza vaccine uptake.

ADMINISTRATION

Department of Health Sciences

- Undergraduate Advisor (2016-2021)
- Chair, Health Science Undergraduate Committee (2016-2021)
- Hiring committee for Public Health tenure-track Assistant Professor Position (2018)
- Chair, Hiring committee for Global Health and Environmental Health tenure-track Associated/Full Professor Position (2017)
- Hiring committee for Big Data tenure-track Associated/Full Professor Position (2017)
- Hiring committee for Life course tenure-track Associated/Full Professor Position (2017)
- Health Science New Graduate Program Development Committee (2016-2017)
- Hiring committee for Health Sciences Instructor (2016)
- Chair, Hiring committee for Health Sciences Laboratory and Research Coordinator (2015)
- Hiring committee for Health Sciences Departmental Administrator (2015)
- Hiring Committee for Biochemistry tenure-track Assistant Professor Position (2015)
- Hiring Committee for Developmental Biology tenure-track Assistant Professor Position (2015)

Faculty of Science

- Science Committee on Academic Planning (2016-2021)
- Health Sciences Building Committee (2015-2017)

Faculty of Graduate and Postdoctoral Affairs

- Health Science Representative on Graduate Faculty Board (2014-2016)

PROFESSIONAL DEVELOPMENT

Certificate in University Teaching 2015
Educational Development Center, Carleton University

Certification in Applied Biostatistics 2012-2013
The Harvard Clinical and Translational Science Centers,
Harvard Medical School

CURRICULUM VITAE – KRISTIN L CONNOR

Current Position Associate Professor (with Tenure), Developmental Origins of Health and Disease, Department of Health Sciences, Carleton University, Ottawa, Canada
Secondary Affiliation: Visiting Scientist, Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Canada

Degrees

2009 **Doctor of Philosophy Reproductive and Developmental Physiology**
Department of Physiology, Faculty of Medicine, University of Toronto, Toronto, Canada
Supervisor: Prof. JRG Challis, PhD, DSc, FRCOG, FCAHS, FRSC, OC

2003 **Bachelor of Science, Honours Molecular Biology and Genetics (Major); Nutritional Science (Minor)**
University of Guelph, Guelph, Canada
Programme focus: reproduction, development and nutritional sciences.

Professional Activities and Contributions

Teaching (last 5 years)

2020-present Emerging Issues in Health Sciences II (HLTH 3902)
3rd year undergraduate health sciences course
Department of Health Sciences, Carleton University, Ottawa, Canada

Fall 2019-present Interdisciplinary Health Research Project – Individual (HLTH 5505)
Coordination and supervision of HSTP graduate individual research projects

2018 Mar Pathophysiology of Health Problems (HSS 3305)
3rd year undergraduate health sciences course required for all students in BHSc programme
Faculty of Health Sciences, University of Ottawa
Lecturer: Developmental Origins of Health and Disease

2016-present Maternal and Prenatal Determinants of Health (HLTH 4401)
4th year undergraduate health sciences course
Department of Health Sciences, Carleton University, Ottawa, Canada

2016-present Emerging Issues in Biomedical Science (HLTH 3901)
3rd year undergraduate health sciences course
Department of Health Sciences, Carleton University, Ottawa, Canada

2017-2019, 2021, 2022 Biologia Celular (Cellular Biology) (MOF882)
Graduate course required for all MSc and PhD students in the Cellular Biology programme of the Institute of Biological Sciences
Lecturer: Developmental Origins of Health and Disease
MSc and PhD graduate students in the Institute of Biological Sciences
Department of Morphology, Institute of Biological Sciences, Federal University of Minas Gerais, Belo Horizonte, Brazil (3 hour lecture delivered via videoconference)

2016-2020 Interdisciplinary Health Research Project – Group (HLTH 5504, formerly 5502 or 5501)
Coordination and supervision of HSTP graduate group research projects
Department of Health Sciences, Carleton University, Ottawa, Canada

2012-present Pregnancy and Birth: From Implantation to Newborn Life (PSL421)
 Lecturer: Perinatal nutrition and the fetus and adult health
 4th year undergraduate physiology course
 Department of Physiology, University of Toronto, Canada

Service and Committees (last 5 years)

2022 May-present Consultant, CIHR's Knowledge Mobilization Framework and Action Plan
 2022 Mar-2022 Apr Abstract review committee, Developmental Origins of Health and Disease 2022 World Congress
 2022 Dec-2022 Apr Abstract review and poster judging Society for Reproductive Investigation 2022 annual meeting
 2021 Sept-present Member, Institute Advisory Board, CIHR Institute for Human Development Child and Youth Health
 2021 Sept-2022 Apr Co-organiser, Ottawa Life Sciences Research Day 2022
 2020 Oct-present Member, Inspiring Healthy Futures #WeCANforKids Core Strategy Team (strategic initiative by UNICEF, CIHR, Children's Health Care Canada and Paediatric Chairs of Canada)
 2019 Dec-present Member, Society for Reproductive Investigation
 2020 Apr-present Member, CIHR Institute for Human Development Child and Youth Health Early Career Investigator Strategy Team
 2020 Feb-present Member, CIHR Institute for Human Development Child and Youth Health Strategy Core Team
 2020 Jan-present Member, Education, Outreach and Communications Committee, Canadian DOHaD Society
 2020 Jan-present Chair, Communications Committee, DOHaD 2022 World Congress
 2020-2021 Member, Hiring Committee Department of Health Sciences Faculty Search: Immunometabolism
 2020-2021 Member, Hiring Committee Departments of Health Sciences and Food Science joint Instructor Search
 2019 Dec-present Co-organiser Health Sciences Student Ambassador Programme
 2019 Nov-2020 Apr Co-organiser, Ottawa Life Sciences Research Day 2020 (cancelled due to SARS-CoV-2)
 2019 Sep-present Member, Executive Committee, and Congress Organising Committee and Communications Chair, DOHaD 2022 World Congress
 2019 Aug Panel member, Networks of Centres of Excellence (NCE) mock review panel for Kids Brain Health Cycle III NCE renewal
 2019 Apr-2019 June Keynote presenter and inaugural Masterclass Series leader to assist The Developmental Origins of Chronic Diseases in Children (DEVOTION) Network in Manitoba in their efforts to develop a DOHaD curriculum which will be available to all trainees within the Children's Hospital Research Institute of Manitoba (CHRIM)
 2018 Oct-present Guest Editor for the special issue on Early Life Nutrition and Future Health, Nutrients journal
 2018 Mar-2019 Jul Co-Chair, Canadian DOHaD Society Annual Meeting (held Feb 2019)
 2017 Jan-2019 Apr Associate Editor for the special issue on DOHaD research in Canada, Journal of Developmental Origins of Health and Disease
 2017 Sept-present Member, Animal Facility User Group, Carleton University
 2017 May-present Member, CANUE (Canadian Urban Environmental Health Research Consortium), Integrated Research Theme (Maternal-Fetal-Child)
 2017 Mar-2018 Mar Member, Organising Committee, DOHaD Theme, 2018 Canadian National Perinatal Research Meeting
 2017 Mar-present Member, International DOHaD Society

2017 Sep-present	Member, Graduate Committee, Department of Health Sciences
2017 Sep-present	Member, Awards Committee, Department of Health Sciences
2016-2017	Chair, Hiring Committee Department of Health Sciences Faculty Search: Lifecourse Approach to Health
2016-2017	Member, Hiring Committee Department of Health Sciences Faculty Search: Big Data
2016-2017	Member, Hiring Committee Department of Health Sciences Faculty Search: Environmental and Global Health
2016 May	Co-Chair, Early Career Investigator Roundtable with HealthCareCAN, Canadian Institutes of Health Research and the Office of the Minister of Science, Hon. Dr. Kirsty Duncan, Ottawa, Canada
2016 Mar-2020 Apr	National Co-Chair and Founding Member, Association of Canadian Early Career Health Researchers
2016 Jan-2019 Apr	Graduate Chair, Department of Health Sciences, Carleton University
2016 Jan-2020 Jan	Head, Programme Development Committee, Department of Health Sciences, Carleton University
2016 Jan-2019 Apr	Member, Graduate Faculty Board, Carleton University
2016 Jan-present	Member, Canadian DOHaD Society
2015 Oct-present	Associate Editor, Journal of Developmental Origins of Health and Disease
2015 Oct-present	Affiliated Researcher, Canadian Health Adaptations, Innovations, & Mobilisation Centre (CHAIM), Carleton University
2014-present	Investigator, Ontario Birth Study, Mount Sinai Hospital, Toronto, Canada
2014-Sept 2021	Member, Research Committee Department of Obstetrics and Gynaecology, University of Toronto

Scientific Referee for: American Journal of Physiology; American Journal of Physiology, Endocrinology and Metabolism; Journal of Child Psychology and Psychiatry/ Child and Adolescent Mental Health; Journal of Developmental Origins of Health and Disease; Journal of Endocrinology; Journal of Health Promotion and Chronic Disease Prevention in Canada; Journal of Human Nutrition and Dietetics; Journal of Neuroendocrinology; Journal of Oxidative Medicine and Cellular Longevity; Molecular Medicine; Open Physiology Journal; Pediatric Research; Placenta; PLoS One; Reproductive Biology and Endocrinology; Reproduction; Reproductive Sciences

Graduate Student Thesis Defence Committees

Date	Student & Thesis	Role
2021 Dec	Sina Salsabili, PhD Candidate, Electrical and Computer Engineering, Carleton University, Ottawa <i>Automated Segmentation of Complex Biological Structures in Histopathology Images</i> Supervisor: Dr. Adrian Chan	External to department examiner, PhD viva
2021 Aug	Scarlett Puebla Barragan, PhD Candidate, Microbiology and Immunology, Western University, London <i>Metabolic Origins of Urogenital Malodour in Women and Their Relationship With Their Microbiota: Can Probiotics Help?</i> Supervisor: Dr. Gregor Reid	External examiner, PhD viva
2021 May	Esther Munezero, MSc Candidate, Biology Department of Biology, Carleton University <i>Enhancing folic acid dietary intervention research in mouse models</i>	External to department examiner, MSc viva

	Supervisor: Dr. Amanda MacFarlane (Health Canada)	
2020 Nov	Kyung Joo Lee, MSc Candidate, Biology with specialisation in Chemical and Environmental Toxicology Department of Biology, University of Ottawa <i>Development of Reporting Guidelines for Systematic Review for Environmental Epidemiology Studies</i> Supervisor: Dr. Laurie Chan	External examiner, MSc viva
2020 Mar	Evan Turner, MSc Candidate, Health Sciences Department of Health Sciences, Carleton University, Ottawa <i>SUNRISE Pilot Study: Canadian Surveillance Study of Movement Behaviours in the Early Years</i> Supervisor: Dr. Mark Tremblay (CHEO)	Chair, MSc viva
2019 Aug	Myy Mikwar, PhD Candidate, Biology Department of Biology, Carleton University, Ottawa <i>The effect of dietary folic acid supplementation on female germ cell aneuploidy</i> Supervisor: Dr. Amanda MacFarlane (Health Canada)	External to department examiner, PhD viva
2017 Aug	Gareth Rurak, MSc Candidate, Neuroscience Department of Neuroscience, Carleton University, Ottawa <i>Sex differences in cortical astroglia throughout postnatal development</i> Supervisor: Dr. Natalina Salmoso	External examiner, MSc viva
2017 Apr	Marc Beal, PhD Candidate, Biology Department of Biology, Carleton University, Ottawa <i>Harnessing new genomics technologies to assess environmental risk factors that may cause heritable genetic disease</i> Supervisors: Drs. Carole Yauk (Health Canada), Francesco Marchetti (Health Canada), and Iain Lambert (Carleton U)	External to department examiner, PhD viva
2017 Apr	Yanjiang Yu, MSc Candidate, Probability and Statistics School of Mathematics and Statistics, Carleton University, Ottawa <i>Associations between long term exposure to air pollution and the incidence of dementia and cognitive impairment in a Canadian prospective cohort study</i> Supervisors: Drs. Shirley Mills and Paul Villeneuve	External examiner, MSc viva

Thesis Graduate Advisory Committee Member

Date	Student & Thesis	Role
2020 Sept-present	Sandra Patricia Rodil García, PhD Candidate, Molecular Biology Division, Instituto Potosino de Investigación Científica y Tecnológica, San Luis Potosí, S.L.P. México <i>The role of microRNAs throughout the lifecourse on the development of metabolic disorders</i> Supervisor: Prof. Luis A. Salazar-Olivo	External committee member
2020 May-2021 May	Esther Munezero, MSc Candidate, Biology Department of Biology, Carleton University <i>Enhancing folic acid dietary intervention research in mouse models</i> Supervisor: Dr. Amanda MacFarlane (Health Canada)	External committee member

2020 Jan-present	Chinonye Udechukwu, PhD Candidate, Neuroscience Department of Cellular and Molecular Medicine, University of Ottawa <i>Impacts of dietary interventions on the developing microbiota-gut-brain axis: implications for susceptibility versus resilience to later-life mental health disorders</i> Supervisors: Dr. Marie-Claude Audet and Dr. Pierre Blier	External committee member
2019 Jan-2020 Nov	Kyung Joo Lee, MSc Candidate, Biology with specialisation in Chemical and Environmental Toxicology Department of Biology, University of Ottawa <i>A reporting guideline and guidance for meta-analysis methodology for environmental epidemiology studies</i> Supervisor: Dr. Laurie Chan	External committee member

Trainees and staff

Current supervisions

- June 2022-2022 Sep Supervisor: Tiffany Kerdiles (MSc, Polytech Nice Sophia – Université Côte d’Azur in the field of pharmacology and biotechnology; conducting an internship for MSc in my lab in Ottawa)
Graduate internship project: Impact of maternal obesity and viral infection on pregnancy and offspring development.
- 2022 May-present Supervisor: Clara Miller
MSc thesis: Assessing the effect of a mineral-enriched powder on iron deficiency in women of reproductive age: a randomised placebo-controlled trial
- 2022 May-2022 Sept Supervisor: Olivia Wilding-Davies (4th year Thesis, Department of Health Sciences, Carleton University; accelerated timeframe)
Thesis Project: The scope of iron deficiency and iron deficiency anaemia and current interventions to reduce the burden of iron deficiencies in West Africa. A Systematic Review and Meta-analysis
- 2022 May-2022 Aug Supervisor: Jayden Arif-Pardy (Health Sciences Research Internship)
Project: Identification and evaluation of nutrient-interacting transcripts important for early embryo development
- 2022 May-2022 Aug Supervisor: Israa Zareef (Summer Research Assistant)
Project: Programming of the maternal-fetal interface and offspring development by the infected maternal malnourished mother: a pilot study
- 2022 May-present Supervisor: Hailey Scott (Research coordinator)
Project: various projects and roles
- 2021 Sep-2022 Jul Supervisor: Michael Daly (PhD, University of Bristol; Awarded a UKRI-Mitacs Globalink UK-Canada Doctoral Exchange Award to conduct research in my lab in Ottawa)
Project: Co-production of an eHealth application to improve the identification and prediction of early life health risk and resilience

- 2022 Jan-present Supervisor: Dr. Jessie Burns
Project: A randomised placebo-controlled trial for the prevention of iron deficiency in women of reproductive age
- 2022 Jan-present Supervisor: Dr. Samantha Benton (Awarded a CIHR Postdoctoral Fellowship)
Project: Using placental transcriptomics to understand the impact of pregnancy complications on placental function
- 2021 Nov-present Supervisor: Dr. Constance Nana
Project: A randomised placebo-controlled trial for the prevention of iron deficiency in women of reproductive age
- 2021 Sept-present Supervisor: Hauna Sheyholislami
PhD Thesis: The maternal microbiome as a target for the prevention of fetal spina bifida
- 2021 Sept-2022 Apr Supervisor: Clara Miller (Graduate Research Assistant)
Project: Palatability tests on an iron/zinc-enriched powder
- 2021 Sept-present Supervisor: Alyena Akgun (MSc Individual Research Project, MSc in Health: Science, Technology and Policy, Carleton University)
MSc Project: Development of a tool to predict resiliency and risk for chronic diseases due to early life exposures
- 2020 Sept-present Supervisor: Thainá Ferraz Gonçalves da Silva
PhD thesis: Programming of the maternal-fetal interface and offspring development by the infected maternal malnourished mother: interventions to correct adverse developmental trajectories in at- risk pregnancies
- 2018 Sept-present Supervisor: Marina White
PhD thesis: Early life programming of neurodevelopment and growth: understanding the role of maternal nutrition and the placenta

Past supervisions

Graduate

- Jamie Strain, MSc Individual Research Project, MSc in Health: Science, Technology and Policy
- Hauna Sheyholislami, MSc Individual Research Project, MSc in Health: Science, Technology and Policy
- Hailey Scott, MSc Thesis
- Aida Zaza, MSc Thesis (Biomedical and Molecular Sciences, Queen's University [Thesis Advisor])
- Ayah Abdul-Hussein, Ayesha Kareem, Shrankhala Tewari, MSc Group Research Project, MSc in Health: Science, Technology and Policy
- Lilian Martinelli, PhD Thesis (Cell Biology, Federal University of Minas Gerais, Brazil [Thesis Advisor and Canadian Supervisor])
- Lee Clark, Iryna Demchenko, Zoe West, MSc Group Research Project, MSc in Health: Science, Technology and Policy
- Sarah Beanlands, MSc Directed Studies (Awarded an OGS for her research in my lab)
- Morgan Belsek, Queena Chen, Jenna Coles, Makenzie Weekes, Capstone Research Project, MSc in Health: Science, Technology and Policy
- Mehreen Anjum, MSc Directed Studies
- Richard Maganga, PhD, Thesis (University of Western Australia [co-supervisor])
- Amita Bansal, PhD Thesis (University of Auckland [co-supervisor])

Undergraduate

Oluwatomike Aribaloye, 4th year Thesis

Victoria Bonnell, Directed Studies; i-CUREUS undergraduate research experience

Jayden Arif-Pardy, Dean's Summer Research Internship; Directed Studies

Hasan Abdo, Dean's Summer Research Internship; Directed Studies

Christopher Roche, 4th year Thesis; Health Sciences Research Internship; Directed Studies; Dean's Summer Research Internship

Eleanor Duffley, 4th year Thesis; Health Sciences Research Internship; NSERC USRA, Directed Studies; Dean's Summer Research Internship

Israa Zareef, Dean's Summer Research Internship; Directed Studies

Madison Donoghue; Dean's Summer Research Internship; Directed Studies; i-CUREUS undergraduate research experience

Elia Palladino, 4th year Thesis; Health Sciences Research Internship; Directed Studies; Dean's Summer Research Internship

Sebastian Srugo, 4th year Thesis; Health Sciences Research Internship; Directed Studies, i-CUREUS undergraduate research experience

Sara Siddiqi, Dean's Summer Research Internship (co-supervisor)

Marina White, 4th year Independent Study Research Project

James Bilyk, 4th year Research Essay Thesis, Public Affairs and Policy Management

Claudia Sendanyoye, Dean's Summer Research Internship

Solomon Ndudirim, 4th year Research Essay Thesis, Department of Biology

Presentations as Invited Speaker (last 5 years)

- 2022 Mar Society for Reproductive Investigation Mini-symposium on Fetal Sex and the Impact on Placental Biology and Neonatal Outcome, Denver, CO, USA
Sex-dependent fetoplacental adaptations to early environments – contributors to lifecycle health trajectories?
- 2022 Jan Genetics Grand Rounds Children's Hospital of Eastern Ontario (CHEO), Ottawa, Canada
Using translational science to understand early developmental trajectories and optimise lifecycle health. Focus on neural tube defects.
- 2021 June AEProbio Professional Discovery Academy, Webinar.
Microbiota Development & Probiotics in the First 1000 Days
- 2021 April Women's Health Collaborative Seminar Series (virtual)
An integrated & translational science approach to understand developmental trajectories & optimise lifecourse health
- 2020 May Children's Healthcare Canada Spark Live Webinar
Conducting health research during COVID-19: Challenges and solutions for leadership and productivity for early career Principal Investigators
<https://bit.ly/30Zlgxd>
- 2019 June DEVOTION Masterclass Keynote Speaker, Winnipeg, Manitoba, 2019
The Developmental Origins of Health and Disease. What we know and don't know, where we want to be, and how we can get there.
- 2019 May Life Sciences Day 3.0. Ottawa Life Sciences Ecosystem.
Microbes in early life: a diary of past experiences & a window to future health.

- 2019 March Women and Their Microbes 3rd Annual Meeting – Microbiome Management in Pregnancy, Hamilton, ON, 2019. *Maternal health: going beyond the prenatal window and advice on cheese and fish.*
- 2019 March Women and Their Microbes 3rd Annual Meeting – Microbiome Management in Pregnancy, Hamilton, ON, 2019. Clinical session masterclass with co-speakers Hayes RM, Hummelen R. *Probiotics in pregnancy: indications and safety profile.*
- 2018 May 2018 Canada Gairdner Global Health Lecture Series – Planetary health through food and microbes, London, ON, 2018. *Microbes and nutrition for infant development and cognitive function.*

Competitive Funding

Current Funding

- 2021 June Lucky Iron Fish Enterprises, jointly funded with National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) and Natural Products Canada (NPC) Assessing the effect of a mineral-enriched powder on iron deficiency in women of reproductive age: a randomised placebo-controlled trial
\$806157 CAD
Dr. Kristin Connor (PI), Dr. Bénédicte Fontaine-Bisson (Investigator), Dr. Alastair Summerlee (Collaborator)
- 2021 April Canadian Institutes of Health Research
Project Grant
The maternal gut microbiome as a target to prevent fetal spina bifida
\$761175 CAD
Dr. KL Connor (Co-PI), Dr. T Van Mieghem (Co-PI), Dr. Dr. G Gloor, Dr. A MacFarlane, (Applicants)
- 2021 March Carleton University International Research Seed Grant
Uncovering the early life determinants that predict poor outcomes at birth and in the paediatric period to prevent non-communicable diseases
\$10000 CAD
Dr. KL Connor (PI), Dr. C Pennell (International PI)
- 2020 Oct-2021 Oct Faculty of Dentistry, University of Toronto
SEED grant program
The association between maternal oral inflammation and the composition of breastmilk: a cohort study
\$5000 CAD
A Azarpazhooh (PI), Tenenbaum HC, Glogauer M, Lai J, Connor KL, Sgro M (Co-PIs)
My Role: I am Co-PI on this study. The analysis of all the inflammatory markers and cortisol in breastmilk samples are done in my lab. The dietary analyses and other statistical analyses linking data are done in my lab.
- 2019 Dec Canadian Institutes of Health Research
Planning and Dissemination Grant – Institute of Population and Public Health
The THRIVE collaborative: an initiative to improve our understanding of the factors that determine resiliency and risk using a DOHaD framework
\$19875 CAD

Dr. KL Connor (PI), Dr. L Briollais, Dr. S Davidge, Dr. C Delrieux, Dr. D Goldowitz, Dr. P Nepomnaschy, Dr. A Wazana (Co-Applicants)

2018 Jun-Jun 2024 Natural Sciences and Engineering Research Council of Canada
Discovery Grants
The early life environment and the growth-immune conflict. Does the gut-brain axis play a role?
\$132500
Dr. KL Connor

Completed Funding (last 5 years)

2019 Jun Carleton University Health Research Development Grant
The placenta: a diary of *in utero* exposures in pregnancies complicated by HIV infection and a window to future health
\$10000 CAD
Dr. KL Connor

2018 Mar Canadian Institutes of Health Research
Team Grant: Canadian Microbiome Initiative 2: A Focus on Function and Translation Research Teams
Programming the gut microbiome for child growth and development: a multi-national intervention study
\$25000 CAD
Dr. E Comelli (Co-PI), Dr. KL Connor (Co-PI), Dr. R Bandsma, Dr. C Birken, Dr. L Briollais, Dr. W Fraser, Dr. C Gray, Dr. A Kozyrskyj, Dr. K Kumaran, Dr. SJ Lye, Dr. D Sloboda, Dr. W Ward, (Co-Applicants), Dr. L Bouchard, Dr. CL Dennis, Dr O Fengxiu, Dr. H. Jaspán, Dr. SG Matthews, Dr. S Norris, Dr P Sherman, Dr. Y Wu, Dr. C Yajnik, (Collaborators), Dr. D. O'Connor (Knowledge user)

2018 May Canadian Institutes of Health Research
Planning and Dissemination Grant – HIV/AIDS Research Initiative
The Siyakhula collaborative: an initiative to improve our understanding of the impact of HIV exposure on the health and well-being of mothers and infants
\$18148 CAD
Dr. KL Connor (PI), Dr. U Feucht, Dr. E Cassol, Dr. T Rossouw (Collaborators)

2018 May Canadian Institutes of Health Research
Planning and Dissemination Grant – Institute of Neurosciences, Mental Health and Addiction
Better understanding for better intervening; a collaborative approach to address opioid use in pregnancy for improved health and wellness.
\$19666 CAD
Dr. B Fontaine-Bisson (Co-PI), Dr. A Dumas (Co-PI), Dr. D. Grynspan (Co-PI), Dr. S Bainbridge, C. Beauline, Dr. A. Black, Dr. KL Connor, J. Danforth, Dr. K Corace, Dr. A. Lafreniere, Dr. A. McGee, K. McNally, (Co-Applicants)
My Role: Bring expertise on nutrition and developmental origins of disease; contribute to workshop; contribute to developing research project and writing of grant proposal outline.

2017 July-2019 July Molly Towell Perinatal Research Foundation

Uncovering the mechanisms that contribute to neurodevelopmental impairment and preterm birth in malnourished pregnancies.
\$40000 CAD (with additional \$40000 matching funds from host institution)
Dr. KL Connor (PI), Dr. AD Bocking, Dr. G Reid

2017 May (Nov start)-2019 Nov

International AIDS Society

Collaborative Initiative for Paediatric HIV Education and Research (CIPHER)

Assessment of factors impacting fetal and infant immunity and growth in HIV- and antiretroviral-exposed uninfected children.

\$149793 USD

Dr. Ute Feucht (PI; South African Lead), Dr. KL Connor (Co-I; Canadian Lead), Dr. Edana Cassol (Co-I), Dr. Theresa Rossouw (Co-I), Felicia Molokoane, Ameena Goga, Mphele Mulaudzi, Robert Pattinson (Collaborators)

My Role: I was the Canadian lead of this international study. This grant supported the recruitment of the cohort, banking of biospecimens, and collection of metadata.

2017 Mar

Department of Obstetrics and Gynaecology, Mount Sinai Hospital and University Health Network Grant Competition

The maternal gut microbiome as a player in the etiology of fetal neural tube defects

\$9685

Dr. T Van Mieghem (PI), Dr. KL Connor (Co-I), Dr. G Ryan, Dr. D Baud, Dr. J Deprest (Collaborators)

My Role: I am co-PI on this study but as it was an internal clinical grant, only my Maternal-Fetal Medicine colleague (Van Mieghem) could be the NPA. All experimental work and data analyses are done in my lab.

2018 Oct

Carleton University Health Research Development Grant

The maternal microbiome as a target for the prevention of fetal spina bifida

\$10000 CAD

Dr. KL Connor

2017 June

Carleton University International Research Seed Grant

The impact of maternal and infant HIV status and the early life environment on immune function and development in children.

\$6000

Dr. KL Connor (Co-PI), Dr E Cassol (Co-PI)

Publications

Publications in refereed journals

Connor KL, Bloise E, DeSantis TZ, Lye SJL. Adaptation of the gut holobiont to malnutrition during mouse pregnancy depends on the type of nutritional adversity. *Accepted* at Journal of Nutritional Biochemistry Available as a preprint: Connor et al. (2021) bioRxiv doi: <https://doi.org/10.1101/2021.10.26.465755>

Scott H, Gynspan G, Anderson A, **Connor KL** (2022) Maternal underweight and obesity are associated with placental pathologies in human pregnancy. *Reproductive Sciences*

<https://link.springer.com/article/10.1007/s43032-022-00983-2>

West Z, Clark L, Demchenko I, MacFarlane A, Weiler H, Fraser WD, Arbuckle TE, **Connor KL** (2022) Relationships between maternal body mass index and child cognitive outcomes at three years of age are buffered

by specific early environments in a prospective Canadian birth cohort. J DOHaD p1-11
<https://doi.org/10.1017/S2040174422000228>

Martinelli LM, Carucci A, Payano VJH, **Connor KL**, Bloise E (2022) Translational comparison of the human and mouse yolk sac development and function. Reproductive Sciences <https://doi.org/10.1007/s43032-022-00872-8>

Scott H, Martinelli L, Gynspan D, Bloise E, **Connor KL** (2021) Preterm birth associates with increased placental expression of MDR transporters irrespective of prepregnancy BMI. Journal of Clinical Endocrinology and Metabolism 107:1140-1158 <https://doi.org/10.1210/clinem/dgab813>

Tewari S[†], Toledo Margalef P[†], Kareem A[†], Abdul-Hussein A[†], White M, Wazana A, Davidge ST, Delrieux C, **Connor KL** (2021) Mining Early Life Risk and Resiliency Factors and Their Influences in Human Populations from PubMed: A Machine Learning Approach to Discover DOHaD Evidence. Journal of Personalized Medicine 11:1064 <https://doi.org/10.3390/jpm11111064>

White M, Gynspan D, Van Mieghem T, **Connor KL** (2021) Isolated fetal neural tube defects associate with increased risk of placental pathology: evidence from the Collaborative Perinatal Project. Placenta 114:56-67 <https://doi.org/10.1016/j.placenta.2021.08.052>

Bloise E, Braga JRS, Andrade CBV, Imperio GEI, Martinelli LM, Antunes RA, Silva KR, Nunes CB, Cobellis L, Bloise FF, Matthews SG, **Connor KL**, Ortiga-Carvalho TM (2021) Altered umbilical cord blood nutrient levels, placental cell turnover and transporter expression in human term pregnancies conceived by Intracytoplasmic Sperm Injection (ICSI). Nutrients 13:2587 <https://doi.org/10.3390/nu13082587>

Sheyholislami H, **Connor KL** (2021) Are probiotics and prebiotics safe for use during pregnancy and lactation? A systematic review and meta-analysis. Nutrients 13:2382 <https://doi.org/10.3390/nu13072382>

White M, Feucht U, du Toit LDV, Rossouw T, **Connor KL** (2021) Understanding the impact of maternal HIV infection on the health and well-being of mothers and infants in South Africa: Siyakhula Collaborative Workshop report. Journal of Multidisciplinary Healthcare 14:1987-1999 <https://doi.org/10.2147/JMDH.S317829>

Strain JL, Spaans F, Serhan M, Davidge ST, **Connor KL** (2021) Programming of Weight and Obesity Across the Lifecourse by the Maternal Metabolic Exposome: A Systematic Review. Molecular Aspects of Medicine 100986 <https://doi.org/10.1016/j.mam.2021.100986>

Zazaa A, Pudwell J, Bainbridge S, **Connor KL**, Smith GN (2021) Placental morphology and the prediction of underlying cardiovascular risk factors. European Journal of Obstetrics & Gynecology and Reproductive Biology 263:56-61 [https://www.ejog.org/article/S0301-2115\(21\)00269-4/abstract](https://www.ejog.org/article/S0301-2115(21)00269-4/abstract)

Stock SJ, Zoega H, Brockway M, Mulholland RH, Miller JE, V. Been J, Wood R, Abok II, Alshaikh B, Ayede AI, Bacchini F, Bhutta ZA, Brew BK, Brook J, Calvert C, Campbell-Yeo M, Chan D, Chirombo J, **Connor KL**, Daly M, Einarsdóttir K, Fantasia I, Franklin M, Fraser A, Häberg SE, Hui L, Huicho L, Magnus MC, Morris AD, Nagy-Bonnard L, Nassar N, Nyadanu SD, Olabisi DI, Palmer KR, Pedersen LH, Pereira G, Racine-Poon A, Ranger M, Rihs T, Saner C, Sheikh A, Swift EM, Tooke L, Urquia ML, Whitehead, Yilgwan C, Rodriguez N, Burgner D, Azad MB, iPOP Study Team (2021) The international Perinatal Outcomes in the Pandemic (iPOP) study: protocol. Wellcome Open Res 6:21 <https://doi.org/10.12688/wellcomeopenres.16507.1>

White M, Feucht UD, Duffley E, Molokoane F, Durandt C, Cassol E, Rossouw T, **Connor KL**. (2020) Does *in utero* HIV-exposure and the early nutritional environment influence infant development and immune outcomes?

Findings from a pilot study in Pretoria, South Africa. *Pilot and Feasibility Studies* 6:192 doi.org/10.1186/s40814-020-00725-8

White M, **Connor KL** (2020) *in utero* HIV exposure and the early nutritional environment influence neurodevelopment in infants before age three: findings from an evidenced review and meta-analysis. *Nutrients* 12:3375 doi: 10.3390/nu12113375

Palladino E, Van Mieghem T, **Connor KL** (2020) Diet alters micronutrient pathways regulating fetal growth and development in pregnant mice. *Reproductive Sciences* 28:447-461 doi: 10.1007/s43032-020-00297-1

Abdul-Hussein A[^], Kareem A[^], Tewari S[^], Bergeron J, Briollais L, Challis JRG, Davidge ST, Delrieux C, Fortier I, Goldowitz D, Nepomnaschy P, Wazana A, **Connor KL**. (2020) Early life risk and resiliency factors and their influences on developmental outcomes and disease pathways: a rapid evidence review of systematic reviews and meta-analyses. *Journal of Developmental Origins of Health and Disease* 4:1-16 doi: 10.1017/S2040174420000689

<https://doi.org/10.1017/S2040174420000689>

[^]these HSTP students contributed equally to the work

Connor KL, Kibschull M, Matysiak E, Nuygen T, Matthews SG, Lye SJ, Bloise E. (2020) Maternal malnutrition impacts placental morphology and transport. An origin for poor offspring growth. *Journal of Nutritional Biochemistry* 78:108329 doi: 10.1016/j.jnutbio.2019.108329

Srugo SA, Bloise E, Nguyen T, **Connor KL** (2019) Impact of maternal malnutrition on gut barrier defence. Implications for pregnancy health and fetal development? *Nutrients* 11:1375 <https://doi.org/10.3390/nu11061375>

Connor KL, Bourque SL, Weaver ICG (2019) A Canadian perspective on the developmental origins of health and disease: understanding the past as a way forward. *Journal of Developmental Origins of Health and Disease* 10:1-4 DOI: <https://doi.org/10.1017/S2040174419000011>

Al Refai A, Drake J, Kulkarni A, **Connor KL**, Shannon P, Toi A, Chitayat D, Blaser S, Abbasi N, Ryan G, Van Mieghem T (2019) Fetal myelomeningocele surgery: only treating the tip of the iceberg. *Prenatal Diagnosis* 39:10-15 <https://doi.org/10.1002/pd.5390>

Connor KL, Chehoud C, Altrichter A, Chan L, DeSantis TZ, Lye SJ (2018) Maternal metabolic, immune, and microbial systems in late pregnancy vary with malnutrition. *Biol Reprod* 98:579-592 doi.org/10.1093/biolre/i0y002

Zhang L, Zhou D, Guan W, Ren W, Sun W, Shi J, Lin Q, Zhang J, Qiao T, Ye Y, Wu Y, Zhang Y, Zuo X, **Connor KL**, Xu G (2017) Pyridoxine 5'-phosphate oxidase is a novel therapeutic target and regulated by the TGF- β signalling pathway in epithelial ovarian cancer. *Cell Death and Disease* 8:3214-3232 doi: 10.1038/s41419-017-0050-3

Zhang L, Nadeem L, **Connor KL**, Xu G (2016) Mechanisms and therapeutic targets of microRNA-associated chemoresistance in epithelial ovarian cancer. *Current Cancer Drug Targets* 16:429-441

Tsoulis MW, Chang PE, Moore CJ, Chan KA, Gohir W, Petrik JJ, Vickers MH, **Connor KL**, Sloboda DM (2016) Maternal high fat diet-induced loss of fetal oocytes compromises follicle growth in offspring ovaries. *Biology of Reproduction* 94:94

Bansal A, Bloomfield FH, **Connor KL**, Dragunow M, Thorstensen EB, Oliver MH, Sloboda DM, Harding JE, Alswelner JM (2015) Glucocorticoid-Induced Preterm Birth and Neonatal Hyperglycemia Alter Ovine β -Cell Development. *Endocrinology* 156:3763-3776

Anderson LN, Briollais L, Atkinson HC, Marsh JA, Xu J, **Connor KL**, Matthews SG, Pennell CE, Lye SJ (2014) Investigation of genetic variants, birthweight and hypothalamic-pituitary-adrenal axis function suggests a genetic variant in the SERPINA6 gene is associated with corticosteroid binding globulin in the Western Australia Pregnancy Cohort (Raine) Study. *PLoS One* 9(4):e92957.

Adams LA, White SW, Marsh JA, Lye SJ, **Connor KL**, Maganga R, Ayonrinde OT, Olynyk JK, Mori TA, Beilin LJ, Palmer LJ, Hamdorf JM, Pennell CE (2013) Association between liver-specific gene polymorphisms and their expression levels with nonalcoholic fatty liver disease. *Hepatology* 57:590-600

Connor KL, Vickers MH, Beltrand J, Meaney MJ, Sloboda DM (2012) Nature, nurture or nutrition? Impact of maternal nutrition on maternal care, offspring development and reproductive function. *The Journal of Physiology* 590:2167-2180

Begum G, Stevens A, Smith EB, **Connor K**, Challis JR, Bloomfield F, White A (2012) Epigenetic changes in fetal hypothalamic energy regulating pathways are associated with maternal undernutrition and twinning. *FASEB Journal* 26:1694-1703

Beltrand J, Sloboda DM, **Connor KL**, Truong M, Vickers MH (2012) The effects^[SEP] of neonatal leptin antagonism in male rat offspring is dependent upon the interaction between prior maternal nutritional status and post-weaning diet. *Journal of Nutrition and Metabolism* 2012:296935

Dudley KJ, Sloboda DM, **Connor KL**, Beltrand J, Vickers MH (2011) Offspring of mothers fed a high fat diet display hepatic cell cycle inhibition and associated changes in gene expression and DNA methylation. *PLoS One* 6:e21662^[SEP]

Mark PJ, Sisala C, **Connor KL**, Patel R, Vickers MH, Waddell BJ, Sloboda DM (2011) A maternal high fat diet in the rat pregnancy reduces growth of the fetus and the placental junctional zone, but not placental labyrinth zone growth. *Journal of Developmental Origins of Health and Disease* 2:63-70

Braun T, Li S, Moss TJM, **Connor KL**, Doherty DA, Nitsos I, Newnham JP, Challis JRG, Sloboda DM (2011) Differential appearance of placentomes and expression of prostaglandin H synthase type 2 in placentome subtypes after betamethasone treatment of sheep late in gestation. *Placenta* 32:295-303

Connor KL, Vickers MH, Cupido C, Sirimanne E, Sloboda DM (2010) Maternal high fat diet during critical windows of development alters adrenal cortical and medullary enzyme expression in adult male offspring. *Journal of Developmental Origins of Health and Disease* 1:245-254

Stevens A, Begum G, Cook A, **Connor KL**, Rumball CW, Oliver MH, Challis JRG, Bloomfield FH, White A (2010) Epigenetic changes in the hypothalamic pro-opiomelanocortin and glucocorticoid receptor genes in the ovine fetus after periconceptional undernutrition. *Endocrinology* 151:3652-3664

Connor KL, Challis JRG, van Zijl PL, Rumball CW, Alix S, Jaquier AL, Oliver MH, Harding JE and Bloomfield FH (2009) Do alterations in placental 11 β -hydroxysteroid dehydrogenase (11 β HSD) activities explain differences in fetal hypothalamic-pituitary-adrenal (HPA) function following periconceptional undernutrition or twinning in sheep? *Reproductive Sciences* 16:1201-1212

Connor KL, Bloomfield FH, Oliver MH, Harding JE and Challis JRG (2009) Effect of periconceptional

undernutrition in sheep on late gestation expression of mRNA and protein from genes involved in fetal adrenal steroidogenesis and placental prostaglandin production. *Reproductive Sciences* 16:573-583

Challis JRG and **Connor KL** (2009) Glucocorticoids, 11beta-hydroxysteroid dehydrogenase: mother, fetus, or both? *Endocrinology* 150:1073-1074

Jaquiere AL, Oliver MH, Bloomfield FH, **Connor KL**, Challis JR, Harding JE (2006) Fetal exposure to excess glucocorticoid is unlikely to explain the effects of periconceptual undernutrition in sheep. *The Journal of Physiology* 572:109-118

Challis JR, Bloomfield FH, Bocking AD, Casciani V, Chisaka H, **Connor K**, Dong X, Gluckman P, Harding JE, Johnstone J, Li W, Lye S, Okamura K, Premyslova M (2005) Fetal signals and parturition. *Journal of Obstetrics and Gynaecology Research* 31:492-499

Greenaway J, **Connor K**, Pedersen HG, Coomber BL, LaMarre J, Petrik J (2004) Vascular endothelial growth factor and its receptor, Flk-1/KDR, are cytoprotective in the extravascular compartment of the ovarian follicle. *Endocrinology* 145:2896-2905

Book chapters

White M, Lafaille-Magnan ME, Roche C, Jolicoeur-Martineau C, Wazana A[†], **Connor KL**[†] (2022) Developmental origins, differential susceptibility and resilience in neurodevelopmental disorders. In *Neurodevelopmental Pediatrics: Genetic and Environmental Influences*. Eisenstat D, Goldowitz D, Oberlander T and Yager J (eds), Springer Clinical Medicine.

Connor KL. (2017) Microbesity in pregnancy. In *Pregnancy and Obesity*, Maxwell C, Farine D (eds), De Gruyter, Berlin, Germany <https://bit.ly/2Wqy9tS>

Challis JRG, **Connor KL**, Matthews SG, Lye S, Caniggia I, Petraglia F, Imperatore A, Sloboda DM, Li S, Braun T, Li W, Newnham JP. (2009) Development of the Fetal Hypothalamic-Pituitary-Adrenal-Placental Axis: Implications for Postnatal Health. In *Early Life Origins of Human Health and Disease*, Newnham JP, Ross M (eds), pp 89-99, Karger, Basel, Switzerland

Publications submitted and under review

Stock SJ, Zoega H, Brockway M, Mulholland RH, Miller JE, V. Been J, Wood R, Abok II, Alshaikh B, Ayede AI, Bacchini F, Bhutta ZA, Brew BK, Brook J, Calvert C, Campbell-Yeo M, Chan D, Chirombo J, **Connor KL**, Daly M, Einarsdóttir K, Fantasia I, Franklin M, Fraser A, Håberg SE, Hui L, Huicho L, Magnus MC, Morris AD, Nagy-Bonnard L, Nassar N, Nyadanu SD, Olabisi DI, Palmer KR, Pedersen LH, Pereira G, Racine-Poon A, Ranger M, Rihs T, Saner C, Sheikh A, Swift EM, Tooke L, Urquia ML, Whitehead, Yilgwan C, Rodriguez N, Burgner D, Azad MB, iPOP Study Team. Changes in preterm birth and stillbirth during COVID-19 lockdowns: an interrupted time series and meta-analysis of 52 million births in 26 countries. *Revision under review at Nature Human Behaviour* (Apr 2022)

Duffley E, Grynspan D, Scott H, Lafrenière A, Borba Vieira de Andrade C, Bloise E, **Connor KL**. Gestational age and infection are greater predictors of placental histopathology than maternal prepregnancy BMI. *Revision under review at Reproductive Sciences* (July 2021)

Available as a preprint at medRxiv: Duffley et al. (2021) doi: <https://doi.org/10.1101/2021.12.21.21268133>

Publications in refereed conference proceedings

Akgun A, Daly M, Briollais L, Davidge ST, Delrieux C, Goldowitz D, Nepomnaschy P, Wazana A, **Connor KL**. Predicting early life trajectories: Health Care Workers' attitudes and beliefs about lifespan health prediction tools. 12th World Congress on Developmental Origins of Health and Disease. Vancouver, Canada August 2022

Sheyholislami H, O'Leary E, Weaver ICG, **Connor KL**. Maternal malnutrition and fetal sex influence maternal and fetal paraventricular nucleus transcriptome. 12th World Congress on Developmental Origins of Health and Disease. Vancouver, Canada August 2022

White M, Arif-Pardy J*, Van Mieghem T, **Connor KL**. Spina bifida associates with dysregulation in nutrient-sensitive placental gene networks. 12th World Congress on Developmental Origins of Health and Disease. Vancouver, Canada August 2022

**Undergraduate student.*

White M, Bonnell V*, **Connor KL**. Are nutritional interventions that improve pregnancy health beneficial for the placenta? 12th World Congress on Developmental Origins of Health and Disease. Vancouver, Canada August 2022

Won best poster presentation (1 of 20) at DOHaD congress (out of over 200)

**Undergraduate student.*

Ferraz T, Zareef I*, Aribaloye O*, Bloise E, **Connor KL**. Do maternal obesity and SARS-CoV-2 collude to affect placental pathology and anthropometric outcomes at birth? A systematic review and narrative synthesis. 9th Annual meeting of the Canadian National Perinatal Research Meeting. Virtual, May 30-June 3, 2022

**Undergraduate student.*

Bonnell V*, White M, **Connor KL**. Do nutritional interventions before or during pregnancy affect placental phenotype? Findings from a systematic review of human clinical trials. 9th Annual meeting of the Canadian National Perinatal Research Meeting. Virtual, May 30-June 3, 2022

**Undergraduate student.*

White M, Arif-Pardy J*, **Connor KL**. Identification of Novel Nutrient-Gene interactions in Neural Tube Defects. 69th Annual Meeting of the Society for Reproductive Investigation. Denver, USA, March 2022

**Undergraduate student.*

Scott H, Martinelli L, Bloise E, **Connor KL**. Preterm birth increases placental expression of multidrug resistance (MDR) transporters irrespective of maternal prepregnancy body mass index (BMI). Annual meeting for the International Federation of Placenta Associations. Amsterdam, Netherlands, August 30-September 2, 2021 (held virtually due to the SARS-CoV-2 pandemic)

Scott H, Gynspan D, Anderson LN, **Connor KL**. Maternal Underweight and Obesity Are Associated With Placental Pathologies In Human Pregnancy. 68th Annual Meeting of the Society for Reproductive Investigation. Boston, USA, July 2021 (held virtually due to the SARS-CoV-2 pandemic)

White M, Gynspan D, Van Mieghem T, **Connor KL**. Isolated Fetal Neural Tube Defects Associate with Increased Risk of Placental Pathology. 68th Annual Meeting of the Society for Reproductive Investigation. Boston, USA, July 2021 (held virtually due to the SARS-CoV-2 pandemic)

Duffley E*, White M, Gynspan D, Bainbridge S, Connor KL. How Do Maternal BMI and Fetal Membrane Inflammation Influence Infant Outcomes at Birth? 68th Annual Meeting of the Society for Reproductive Investigation. Boston, USA, July 2021 (held virtually due to the SARS-CoV-2 pandemic)

**Undergraduate student.*

White M[^], Duffley E^{^*}, Grynspan D, Bainbridge S, Molokoane F, Rossouw T, U Feucht, **Connor KL**. Placental adaptations to maternal HIV-infection and ART influence infant outcomes. 67th Annual Meeting of the Society for Reproductive Investigation. Vancouver, Canada, March 2020. Conference was cancelled last minute due to SARS-CoV-2 pandemic.

[^]*These students contributed equally to the work. *Undergraduate student*

Duffley E*, White M, Grynspan D, Bainbridge S, **Connor KL**. How do maternal BMI and fetal membrane inflammation influence infant outcomes at birth? 67th Annual Meeting of the Society for Reproductive Investigation. Vancouver, Canada, March 2020. Conference was cancelled last minute due to SARS-CoV-2.

**Undergraduate student*

Duffley E*, White M, Grynspan D, Bainbridge S, **Connor KL**[#]. Placental adaptations to common pregnancy conditions: a window to future health? 11th International Congress on Developmental Origins of Health and Disease. Melbourne, Australia, October 2019

**Undergraduate student. #Presenting Author.*

Bloise E, Kibschull M, Matthews SG, Lye SJ, **Connor KL**^{*}. Maternal malnutrition impacts placental morphology and transport. An origin for poor offspring growth and vulnerability to disease. Annual meeting of the International Federation of Placenta Associations, Buenos Aires, Argentina, September 10-13, 2019

**Primary author – I could not attend the conference so co-author Bloise presented on my behalf and is listed as first author.*

Palladino E*, Van Mieghem T, **Connor KL**. The influence of maternal malnutrition on folate and inositol production and transport in the gut – a mechanism for fetal growth restriction and fetal disorders? 3rd Annual Life Sciences Day: Ottawa's Life Sciences Ecosystem. Ottawa, Canada, May 2019

**Undergraduate student. Won 1st place Undergraduate Poster Presentation (there were no trainee oral presentations so this represented the top award).*

White M, Duffley E*, Feucht U, Molokoane F, Rossouw T, **Connor KL**. Does the early nutritional environment and *in utero* HIV exposure, without infection, impact infant development? 66th Annual Meeting of the Society for Reproductive Investigation. Paris, France, March 2019. Reproductive Sciences 26 (Supplement 1):243A Poster F100 <https://bit.ly/2ZOodbh>

**Undergraduate student*

White M, **Connor KL**. Determining how *in utero* HIV exposure, with or without infection, influences neurodevelopment in infants before age three: findings from an evidenced-based review of observational and experimental studies. 66th Annual Meeting of the Society for Reproductive Investigation. Paris, France, March 2019. Reproductive Sciences 26 (Supplement 1):242A Poster F099 <https://bit.ly/2ZOodbh>

Won best poster presentation (1 of 20) at SRI conference (out of over 800)

West Z, Clark L, Demchenko I, Fraser WD, Arbuckle TE, **Connor KL**. Influence of prenatal exposure to arsenic and mercury on infant cognitive development in a Canadian birth cohort. 6th Annual Canadian National Perinatal Research Meeting, Mont Tremblant, Canada, March 2019. P074:144 <https://bit.ly/2PgC6Q5>

Palladino E*, Van Mieghem T, **Connor KL**. The influence of maternal malnutrition on folate and inositol production and transport in the gut – a mechanism for fetal growth restriction and fetal disorders? 6th Annual Canadian National Perinatal Research Meeting, Mont Tremblant, Canada, March 2019. O14:53 <https://bit.ly/2PgC6Q5>

**Undergraduate student. Selected as a trainee plenary oral at CNPRM.*

White M, Duffley E*, Durandt C, Feucht UD, Molokoane F, Cassol E, Rossouw T, **Connor KL**. Does HIV exposure *in utero* influence infant development and immune outcomes? Findings from a pilot study in Pretoria, South Africa. 6th Annual Canadian National Perinatal Research Meeting, Mont Tremblant, Canada, March 2019. P022:105 <https://bit.ly/2PgC6Q5>

**Undergraduate student*

Zaza A, Pudwell J, Bainbridge S, **Connor KL**, Smith G. Placental programming and the risk of developing cardiovascular risk factors. 6th Annual Canadian National Perinatal Research Meeting, Mont Tremblant, Canada, March 2019, O38:82 <https://bit.ly/2PgC6Q5>

Clark L, Demchenko I, West Z, **Connor KL**. Breastfeeding sentiment of Canadians on Twitter. A pilot study on data mining for non-computer scientists. 5th Annual Data Day 5.0. Ottawa, Canada, June 2018.

Palladino E*, Van Mieghem T, Lye SJ, **Connor, KL**. Does maternal malnutrition impact pathways involved in folate production and transport? 65th Annual Meeting of the Society for Reproductive Investigation. San Diego, USA, March 2018. Reproductive Sciences 25 (Supplement 1):205A Poster F072 <https://bit.ly/2XDkVyY>

**Undergraduate student.*

Srugo SA*, **Connor KL**. The impact of maternal malnutrition on gut barrier defence. Implications for pregnancy health and fetal development? Canadian National Perinatal Research Meeting. Banff, Canada, February 2018. O237:129 <https://bit.ly/2XaTopb>

**Undergraduate student. This abstract was ranked #2 out of 72 abstracts in the DOHaD theme. Won the CIHR IHDCYH Best Oral Presentation of the CNPRM conference.*

Connor KL, Chun L, Knight B, De Boer B, Adams L, Lye SJ. Does supplementation of the postweaning diet reverse offspring metabolic and immune dysfunction due to poor maternal nutrition in mice? 10th International Congress on Developmental Origins of Health and Disease. Rotterdam, Netherlands, October 2017

Connor KL, Bloise E, Kibschull M, Matysiak E, Lee M, Maganga R, Matthews SG, Lye S. Altered placental transport and immune status following maternal malnutrition has implications for fetoplacental development. 9th International Congress on Developmental Origins of Health and Disease. Cape Town, South Africa, November 2015

Bansal A, Alswailer JM, **Connor KL**, Phua HH, Dragunow M, de Matteo R, Harding JE, Bloomfield FH. Effects of non-steroid vs steroid-induced preterm birth in sheep on expression of genes involved in insulin secretion and hepatic insulin sensitivity. Cape Town, South Africa, November 2015

Alswailer JM, Bansal A, **Connor KL**, Phua HH, Dragunow M, de Matteo R, Harding JE, Bloomfield FH. Effects of non-steroid versus steroid-induced preterm birth in sheep on beta cell mass and pancreatic function. 12th World Congress of Perinatal Medicine, Madrid, Spain, November 2015.

Tsoulis MW, Petrik JJ, Chang PE, Vickers MH, **Connor KL**, Sloboda DM. Maternal obesity induces a loss of fetal oocytes and results in ovarian dysfunction in offspring. Annual Meeting of the Society for the Study of Reproduction. San Juan, Puerto Rico, USA, June, 2015

Anderson LN, Knight JA, **Connor KL**, Briollais L, Lye SJ, Bocking AD. Lifestyle characteristics associated with maternal telomere length change during pregnancy; a pilot study from the Ontario Birth Study. Canadian Society for Epidemiology and Biostatistics Conference. Toronto, Canada, June 2015

Connor KL, Bloise E, Altrichter A, Chehoud C, DeSantis T, Matthews SG, Lye SJ. Maternal malnutrition impacts the holobiome and gut transporters. 62nd Annual Meeting of the Society for Reproductive Investigation (formerly Society for Gynecologic Investigation). San Francisco, USA, March 2015

Connor KL, Chehoud C, Chan C, DiStefano P, DeSantis T, Lye SJ. Maternal diet shapes the gut microbiome, impacting immune status in pregnancy. 61st Annual Meeting of the Society for Gynecologic Investigation. Florence, Italy, March 2014

Connor KL, Chehoud C, Chan L, DiStefano P, DeSantis T, Lye SJ. Weight gain and leptin impact the gut microbiome in pregnancy. 61st Annual Meeting of the Society for Gynecologic Investigation. Florence, Italy, March 2014

Connor KL, Bloise E, Matthews SG, Lye SJ. Maternal malnutrition impacts structure, function and inflammation of key barriers along the nutritional pipeline. 8th International Congress on Developmental Origins of Health and Disease. Singapore, November 2013

Connor KL, Chehoud C, Chan L, Lye SJ. Maternal gut microbiome is altered by maternal diet: The forgotten barrier in developmental programming. 8th International Congress on Developmental Origins of Health and Disease. Singapore, November 2013

Bansal A, Alsweiler JM, **Connor KL**, Dragunow M, Harding JE, Bloomfield FH. Preterm Birth and its complications in Sheep Alter Adult Pancreatic Beta-Cell Mass, Beta- Cell Apoptosis and Proliferation Rates. 8th International Congress on Developmental Origins of Health and Disease. Singapore, November 2013

Bansal A, Alsweiler JM, **Connor KL**, Dragunow M, Harding JE, Bloomfield FH. Preterm birth in sheep alters adult pancreatic beta-cell mass and expression of key genes involved in insulin secretion and hepatic insulin sensitivity. 95th Annual Meeting of the Endocrine Society (ENDO). San Francisco, CA, June 2013

Alsweiler JM, Bansal A, **Connor KL**, Harding JE, Dragunow M, Bloomfield FH. Preterm birth and neonatal hyperglycemia reduce ovine beta cell mass and alter pancreatic gene expression. Pediatric Academic Societies Annual Meeting. Washington, DC, USA, May 2013

Maganga RK, **Connor KL**, Pennell CE, Lye SJ. Telomere shortening is dependent upon maternal nutritional environment and is not counteracted by telomerase. Telomeres and Telomerase CSHL Meetings & Courses Program. New York, NY, April, 2013

Connor KL, Lee M, Maganga R, Bloise E, Lye SJ. Maternal malnutrition impacts fetoplacental growth and placental fatty acid transport in late gestation. 60th Annual Meeting of the Society for Gynecologic Investigation. Orlando, FL, March 2013

Anderson LN, Pennell CE, Atkinson H, Marsh J, Briollais L, **Connor KL**, Lye SJ. Birthweight, Candidate Gene Variants and Hypothalamic-Pituitary-Adrenal (HPA) Axis Function among Adolescents in the Western Australia (Raine) Pregnancy Cohort. DOHaD Satellite Meeting: New Developments in Developmental Epidemiology. Rotterdam, Netherlands, December 2012.

Connor KL, Matysiak E, Chun L, Knight B, Pennell CE, Lye SJ. Novel genetic associations with compromised metabolic phenotypes in a mouse model of maternal undernutrition. 59th Annual Meeting of the Society for Gynecologic Investigation. San Diego, CA, March 2012

Bansal A, **Connor KL**, Alsweiler JM, Phua HH, Bloomfield FH. Effects of preterm birth and neonatal hyperglycaemia on expression of key genes in the ovine endocrine pancreas. 15th Annual Congress of the Perinatal Society of Australia and New Zealand. Hobart, Tasmania, April 2011

Connor KL, Vickers MH, Wackrow BW, Meaney MJ, Sloboda DM. Nature or nurture? Effects of maternal high fat nutrition and care on offspring reproductive, metabolic and stress axis function. 58th Annual Meeting of the Society for Gynecologic Investigation. Miami, FL, March 2011

Begum G, **Connor K**, Rumball C, Challis J, Bloomfield F, White A. Epigenetic changes in the proopiomelanocortin gene hypothalamic feeding centres in singleton and twin foetuses as a result of maternal nutritional programming. Epigenetics and Developmental Programming Conference. Newcastle upon Tyne, UK, March 2011

Liu H, Bloomfield FH, Oliver MH, **Connor KL**, Sloboda DM. Periconceptional undernutrition alters fetal pancreatic β -cell mass in late gestation. 53rd Annual Scientific Meeting of the Endocrine Society of Australia. Sydney, Australia, August 2010

Beltrand J, Sloboda DM, **Connor KL**, Truong M, Vickers MH. Neonatal leptin antagonism alters responsiveness to post-weaning high fat nutrition in male offspring of control but not high fat mothers. 49th Annual Meeting of the European Society for Paediatric Endocrinology. Prague, Czech Republic, September 2010

Connor KL, Vickers MH, Meaney MJ, Sloboda DM. Maternal high fat diet during pregnancy and lactation alters maternal care and independently alters offspring development. The Power of Programming International Conference on the Developmental Origins of Health and Disease. Munich, Germany, May 2010

Connor KL, Cupido C, Howie GJ, Vickers MH and Sloboda DM. High fat diet during critical windows of development alters adrenal cortical and medullary enzyme expression in adult male offspring. 6th International Congress on Developmental Origins of Health and Disease. Santiago, Chile, November 2009

Sloboda DM, Mark PM, **Connor KL**, Dudley K, Waddell BJ and Vickers MH. Phenotypic outcome in offspring of mothers fed a high fat diet: a consequence of altered placental development? 6th International Congress on Developmental Origins of Health and Disease. Santiago, Chile, November 2009

Stevens A, Cook A, **Connor KL**, Rumball CW, Oliver MH, Challis JRG, Bloomfield FH and White A. Epigenetic changes in the hypothalamic glucocorticoid receptor gene occur in the ovine fetus in conjunction with periconceptional undernutrition. 91st Annual Meeting of the Endocrine Society (ENDO). Washington, DC, June 2009

Stevens A, Cook A, Rumball C, Oliver M, **Connor K**, Challis J, Bloomfield F and White A. Epigenetic changes of the hypothalamic glucocorticoid receptor gene occur in the ovine foetus in conjunction with periconceptional undernutrition. Society for Endocrinology, British Endocrine Society. Harrogate, UK, March 2009

Stevens A, Cook A, Rumball C, Oliver M, **Connor K**, Challis J, Bloomfield F and White A. Periconceptional undernutrition is associated with epigenetic changes in the Proopiomelanocortin (POMC) gene in the hypothalamus of foetal sheep. Society for Endocrinology, British Endocrine Society. Harrogate, UK, March 2009

Connor KL, Bloomfield FH, White A, McNeilly AS, Stevens A, Cook A, Matthews SG, Oliver MH and Challis JRG. Dopaminergic regulation of POMC, ACTH and cortisol in the late gestation normally nourished and undernourished sheep fetus. 13th International Congress of Endocrinology, Rio de Janeiro, Brazil, November 2008

Bloomfield FH, Phua HH, **Connor KL**, Jaquier AL, Rumball CWH, Oliver MH, Challis JRG and Harding JE. Twins of periconceptionally undernourished (PCUN) ewes have delayed adrenal maturation throughout gestation and decreased hypothalamic-pituitary-adrenal-axis (HPAA) negative feedback at the level of the hippocampus. 12th Annual Congress of the Perinatal Society of Australia and New Zealand, Gold Coast, Queensland, Australia, April 2008

Connor KL, van Zijl PL, Rumball CW, Alix S, Jaquier AL, Oliver MH, Harding JE, Bloomfield FH and Challis JRG. Do alterations in placental 11 β -hydroxysteroid dehydrogenase (11 β HSD) activities explain differences in fetal hypothalamic-pituitary-adrenal (HPA) function following periconceptional undernutrition or twinning in sheep? 55th Annual Meeting of the Society for Gynecologic Investigation. San Diego, CA, March 2008

Audette MC, **Connor KL**, Braun T, Li S, Moss TM, Sloboda DM, Newnham JP and Challis JRG. Maternal glucocorticoid administration in early pregnancy and the relationship between 11 β HSD2 mRNA in ovine placenta and fetal weight across gestation. 55th Annual Meeting of the Society for Gynecologic Investigation. San Diego, CA, March 2008

Connor KL, van Zijl PL, Rumball CW, Jaquier AL, Harding JE, Oliver MH, Challis JRG and Bloomfield FH. Effect of maternal periconceptional undernutrition and twinning on placental 11 β -hydroxysteroid dehydrogenase (HSD)-1 and -2 activity across gestation. 5th International Congress on Developmental Origins of Health and Disease. Perth, Australia, November 2007

Bloomfield FH, **Connor KL**, Rumball CW, Jaquier AL, Phua HH, Oliver MH, Challis JRG and Harding JE. Periconceptional undernutrition (PCUN) and twinning in sheep differently alter the ontogeny of adrenocorticotrophin receptor (ACTH-R), steroidogenic acute regulatory protein (StAR) and P450C17 (CYP17) in fetal adrenal glands. 5th International Congress on Developmental Origins of Health and Disease. Perth, Australia, November 2007

Connor KL, Oliver MH, Bloomfield FH, Harding JE and Challis JRG. Effects of periconceptional undernutrition on the development of the fetal hypothalamic-pituitary-adrenal axis and placenta: Implications for the timing of birth and postnatal disease risk. The Rank Prize Funds Mini-Symposium on Birthweight and Prenatal Nutrition. Windermere, Cumbria, UK, 2006

Connor KL, Jaquier AL, Oliver MH, Bloomfield FH, Harding JE and Challis JRG. Periconceptional undernutrition reduces placental 11 β HSD-2 activity in early gestation in ewes carrying twin pregnancies. 53rd Annual Meeting of the Society for Gynecologic Investigation. Toronto, ON, March 2006

Braun T, **Connor KL**, Li S, Moss T, Newnham JP, Challis JRG and Sloboda DM. Prenatal exposure to betamethasone modifies adrenal steroidogenic enzyme P450C17 expression levels in sheep offspring. 53rd Annual Meeting of the Society for Gynecologic Investigation. Toronto, ON, March 2006

Fantauzzi MR, **Connor KL**, Oliver MH, Bloomfield FH, Harding JE, Gibb W and Challis JRG. Effect of periconceptional undernutrition on PGE2 receptor protein expression and localization in late gestation ovine placentomes. 53rd Annual Meeting of the Society for Gynecologic Investigation. Toronto, ON, March 2006

Braun T, **Connor KL**, Li S, Moss T, Newnham JP, Challis JRG and Sloboda DM. Influences of early maternal dexamethasone on late gestational programming in sheep. 29th Annual Perinatal Investigators Meeting. Kingston, ON, November 2005

Braun T, **Connor KL**, Li S, Moss T, Newnham JP, Challis JRG and Sloboda DM. Differential expression of COX-2 is programmed in late gestation placentomes by administration of maternal Betamethasone. 3rd

International Congress on Developmental Origins of Health and Disease. Toronto, ON, November 2005

Connor KL, Bloomfield FH, Harding JE, Oliver MH, Gluckman PD, Knight B, Lye SJ, Godfrey KM, Johnstone JF and Challis JRG. Nutrition and preterm birth. Preterm Birth Causes and Consequences Satellite Meeting to 32nd Annual Meeting of the Fetal and Neonatal Physiological Society. Perth, Australia, September 2005

Bloomfield FH, **Connor KL**, Jaquiery AL, Oliver MH, Challis JRG and Harding JE. Periconceptual undernutrition in the ewe acutely down-regulates maternal, but not fetal, adrenal ACTH receptor, StAR and P450c17 mRNA but up-regulates fetal adrenal P450c17 expression in late gestation. 32nd Annual Meeting of the Fetal and Neonatal Physiological Society. Adelaide, Australia, September 2005

Connor KL, Oliver MH, Bloomfield FH, Harding JE and Challis JRG. Moderate periconceptual undernutrition, acting through the hypothalamic-pituitary-adrenal axis, precociously activates fetal adrenal function without activation of placental function. 25th Annual Meeting of the Perinatal Society of New Zealand. Auckland, NZ, July 2005

Jaquiery AL, Oliver MH, Van Zijl P, Bloomfield FH, **Connor KL**, Challis JRG and Harding JE. Are the effects of periconceptual undernutrition in sheep mediated by increased fetal exposure to maternal glucocorticoid? 25th Annual Meeting of the Perinatal Society of New Zealand. Auckland, New Zealand, July 2005

Connor KL, Oliver MH, Bloomfield FH, Harding JE and Challis JRG. Moderate periconceptual undernutrition, acting through the hypothalamic-pituitary-adrenal axis, precociously activates fetal adrenal function without activation of placental function. 87th Annual Meeting of the Endocrine Society (ENDO). San Diego, CA, June 2005

Johnstone JF, Bocking AD, Unlugedik E, **Connor KL**, Challis JRG. The Effect of Chorioamnionitis on 11 β HSD-1 Expression in Preterm Human Placenta and the Regulation of 11 β HSD-1 by Pro-Inflammatory Cytokines in the JEG-3 Choriocarcinoma Cell Line. 52nd Annual Meeting of the Society for Gynecologic Investigation. Los Angeles, CA, March 2005

Greenaway J, **Connor K**, Pedersen HG, Coomber BL, LaMarre J, and Petrik J. VEGF and VEGFR-2 support ovarian granulosa cell survival. Gordon Research Conference Angiogenesis and Microcirculation, New Port, RI, August 2003

Connor K, Tie A, Bakovic M. The role of single nucleotide polymorphisms (SNPs) in the MTHFR, PON55 and HL genes and cardiovascular disease risk factors. To be presented at the International Congress of Biochemistry and Molecular Biology, Toronto, ON, June 2003. However, the conference was cancelled due to SARS.

Academic Appointments

- Assistant Professor, Department of Health Sciences, Carleton University (July, 2021 onwards).
 - Assistant Professor (0%), School of Mathematics and Sciences, Carleton University.
 - Participating Faculty, Institute of Data Science, Carleton University.
- Assistant Professor, Department of Health Outcomes and Administrative Sciences, School of Pharmacy and Pharmaceutical Sciences, Binghamton University, SUNY (Sep, 2017–June, 2021).
 - Site Principal Investigator of CINRG Scientific Research Site at Binghamton University.
 - Courtesy Faculty, Department of Mathematical Sciences, Binghamton University (Sep, 2017–Sep, 2020).
- Lecturer, Department of Mathematical Sciences, Binghamton University (Aug, 2016–Aug, 2017).
- Director/consultant, Statistical Consulting Services, Binghamton University (Aug, 2016–Aug, 2017).
 - Launched Statistical Consulting Services (SCS) for on-campus faculty and graduate students.
- Research Associate, Department of Mathematics & Statistics, McMaster University, ON (Feb, 2016–May, 2016). Supervisor: Dr. Paul McNicholas.
- Post-doctoral Fellow, Department of Biology, McMaster University, ON (Apr, 2014 – Jan, 2016). Supervisor: Dr. G. Brian Golding.
- Visiting research fellow at University of Catania, Italy (May 2012; Sep 2012; Feb 2013).

Non-academic Appointments

- Statistical consultant, ReveraGen BioPharma. 2019–present (ad hoc).

Education

- Ph.D. in Statistics, 2014, Department of Mathematics & Statistics, University of Guelph.
Title: *Mixtures of power exponential distributions and topics in regression-based mixture models*.
Supervisor: Dr. Paul McNicholas.
- M.Sc. in Mathematics, 2011, Department of Mathematics & Statistics, University of Guelph. Title: *Interactions between immunization strategies and pandemic influenza associated severe outcomes*. Supervisor: Dr Chris Bauch.
- B.Sc. (Hon) in Mathematics, 2009, Department of Mathematics & Statistics, University of Guelph.

Research Interests

Health outcomes, Duchenne muscular dystrophy, Becker muscular dystrophy, biomarkers, clinical trials, precision medicine, biostatistics, bioinformatics, computational biology, phylogenetics, computational statistics, data science, clustering and classification, machine learning.

Recognition and Awards

- 2015: Shortlisted - Classification Society Distinguished Dissertation Award; International level.
- 2011–2014: Alexander Graham Bell Canada Graduate Scholarship (CGS D): National Sciences and Engineering Research Council of Canada (for Ph.D., University of Guelph).
- 2012, 2013: Travel grants for visiting research scholar position at University of Catania, Italy.

- 2011–2014: Dean’s Tri-Council Scholarships.
- 2011–2013: Dean’s Scholarship (for Ph.D., University of Guelph).
- 2011: Ontario Graduate Scholarship (for Ph.D., University of Guelph): Provincial scholarship declined in favour of NSERC (CGS D).
- 2010–2011: Dean’s Scholarship (for M.Sc., University of Guelph).
- 2009: CPES Society of Excellence (University Of Guelph).
- 2008: Undergraduate Research Assistantship (University Of Guelph).
- 2007–2009: Dean’s Honors List (University Of Guelph).
- 2007–2008: Academic Excellence Award (University Of Guelph).

Research Funding

• Active

1. NIH R61NS119639. **Role:** Co-investigator at Carleton (Multiple PI at Binghamton University at time of application). Biomarker Signatures for Duchenne Muscular Dystrophy. **Total USD\$1.634 million.** 2022–2025.
2. Foundation to Eradicate Duchenne. **Role:** PI. Validating biomarker and outcome correlations and signatures of baseline severity in steroid-naïve DMD patients. **Total USD\$46,960.88.** 2022.
3. NIH NIAMS 1 R21 AR076660-01A1. **Role:** Co-Investigator (primary statistician). Pilot Trial of Vamorolone for the Treatment of Becker Muscular Dystrophy. **Total USD\$626,549.** 2021–2023.
4. NSERC Discovery Grant. **Role:** PI. Model-based learning on high-dimensional biological data. **Total \$107,500.** 2022–2027.
5. US Department of Defense CDMRP. **Role:** Co-investigator. Genetic modifiers of treatment response in DMD. **Total USD\$447,571.** 2021–2024.

• Past

- Foundation to Eradicate Duchenne Award. **Role:** PI. 01/01/2020–12/31/2020 (extended to 2021) **\$41,063.** Defining Prognostic Models of Future Clinical Trajectories in Duchenne Muscular Dystrophy
- Foundation to Eradicate Duchenne Award (Principal Investigator) 01/01/2019–8/31/2020 **\$31,000.** Defining Serum Biomarkers of Early-age Severity for DMD – Statistical Research Using Vamorolone 002 Data.

Peer Reviewed Articles (Published and Accepted)

22. Guglieri, M, Clemens, PR, Perlman, SJ, Smith, EC, Horrocks, I, Finkel, RS, Mah, JK, Deconinck, N, Goemans, N, Haberlova, J, Straub, V, Mengle-Gaw LJ, Schwartz, BD, Harper, AD, Shieh, PB, De Waele, L, Castro, D, Yang, ML, Ryan, MM, McDonald, CM, Tulinius, M, Webster, R, McMillan, HJ, Kuntz, NL, Rao, VK, Baranello, G, Spinty, S, Childs, AM, Sbrocchi, AM, Selby, K, Monduy, M, Nevo, Y, Vilchez-Padilla, J, Nascimento-Osorio, A, Niks, EH, de Groot, IJM, Katsalouli, M, James, MK, van den Anker, J, Damsker, JM, Ahmet, A, Ward, LM, Jaros, M, Shale, P, **Dang, UJ**, Hoffman, EP. Vamorolone versus placebo and prednisone in Duchenne muscular dystrophy. A randomized clinical trial. *JAMA Neurology*. Accepted.
21. Sun, M., **Dang, U.J.**, Yuan, Y., Psaras, A.M., Osipitan, O., Brooks, T.A., Lu, F., Di Pasqua, A.J. (2022). Optimization of DOTAP/chol cationic liposomes for mRNA, pDNA and oligonucleotide delivery. *AAPS PharmSciTech*. Accepted.

20. Mah, J; Clemens, P; Guglieri, M; Smith, E C; Finkel, R S; Tulinius, M; Nevo, Y; Ryan, M M; Webster, R; Castro, D; Kuntz, N L; McDonald, C M; Damsker, J M; Schwartz, B D; Mengle-Gaw, L J; Jackowski, S; Stimpson, G; Ridout, D A; Ayyar-Gupta, V; Baranello, G., Manzur, A Y; Muntoni, F; Gordish-Dressman, H; Leinonen, M; Ward, L M; Hoffman, E P; **Dang, U.J.**; NorthStar UK Network and CINRG DNHS Investigators (2022). Efficacy and safety of vamorolone in Duchenne muscular dystrophy: A 30-month non-randomized open-label extension study. *JAMA Network Open*. 5(1):e2144178.
19. Roy R, Soldin, S. J., Stolze, B., Barbieri, M., Tawalbeh, S. M., Rouhana, N., Fronczek, A. E., Nagaraju, K, van den Anker, J, **Dang, U.J.**, Hoffman, E. P. (2022). Acute serum protein and cytokine response of single dose of prednisone in adult volunteers. *Steroids*. 178 (108953).
18. Novak, J., Rita Spathis, R, **Dang, U.J.**, Fiorillo, AA, Hindupura, R, Tullya, C.B., Mázalaa, D.A.G., Canessad, E, Brown, K.J., Partridge, T.A., Hathout, Y; Nagaraju, K. (2021). Interrogation of dystrophin and dystroglycan complex protein turnover after exon skipping therapy. *Journal of Neuromuscular Diseases*. 8(S2) S383-S402.
17. Ogundele M, Zhang JS, Goswami MV, Barbieri ML, **Dang U.J.**, Novak JS, Hoffman EP, Nagaraju K, CINRG-DNHS Investigators, Hathout Y. Validation of Chemokine Biomarkers in Duchenne Muscular Dystrophy. *Life*. 2021; 11(8):827.
16. Ziemba, M., Barkhouse, M., Uaesoontrachoon, K., Giri, M., Hathout, Y., **Dang, U.J.**, Gordish-Dressman, H., Nagaraju, K. and Hoffman, E.P., 2021. Biomarker-focused multi-drug combination therapy and repurposing trial in mdx mice. *PLoS ONE*, 16(2), p.e0246507.
15. Tawalbeh, S., Samsel, A., Gordish-Dressman, H., Hathout, Y., Investigators, C.-D., and **Dang, U.J.** (2020) Comparison of Serum Pharmacodynamic Biomarkers in Prednisone-Versus Deflazacort-Treated Duchenne Muscular Dystrophy Boys. *Journal of Personalized Medicine* 10, 164.
14. Smith, E.C., Conklin, L.S., Hoffman, E.P., Clemens, P.R., Mah, J.K., Finkel, R.S., Guglieri, M, Tulinius, M., Nevo, Y., Ryan, M.M., Richard Webster MD, Diana Castro MD, Kuntz, N.L., Kerschner, L., Morgenroth, L.P., Arrieta, A., Shimony, M., Jaros, M., Phil Shale PhD, Gordish-Dressman, H., Hagerty, L., **Dang, U.J.**, Damsker, J. M., Schwartz, B.D., Mengle-Gaw, L.J., McDonald, C.M. and the CINRG VBP15 and DNHS Investigators (2020). Efficacy and safety of vamorolone in Duchenne muscular dystrophy. An 18-month non-randomized open-label extension study. *PLOS Medicine* 17(9): e1003222.
13. Tawalbeh, S. M., Marin, W., Morgan, G. A., **Dang, U.J.**, Hathout, Y, and Pachman, L. M. (2020) Novel Serum Protein Biomarkers for Juvenile Dermatomyositis: A Pilot Study. *BMC Rheumatology* 4, 52.
12. **Dang, U.J.**, Ziemba, M., Clemens, P.R., Hathout, Y, Conklin, L, CINRG Vamorolone 002/003 Investigators, and Hoffman, E.P. (2020) Serum biomarkers associated with baseline clinical severity in young steroid-naive Duchenne muscular dystrophy boys. *Human Molecular Genetics* 29 (15), 2481-2495.
11. Hathout Y, Liang C, Ogundele M, Xu G, Tawalbeh SM, **Dang U.J.**, Hoffman EP, Gordish-Dressman H, Conklin LS, van den Anker JN, Clemens PR (2019). Disease-specific and glucocorticoid-responsive serum biomarkers for Duchenne Muscular Dystrophy. *Scientific Reports*. 2019;9(1).
10. Sun, M, Shi, Y, **Dang, U.J.**, and Di Pasqua, A. J. (2019) Phenethyl Isothiocyanate and Cisplatin Co-Encapsulated in a Liposomal Nanoparticle for Treatment of Non-Small Cell Lung Cancer, *Molecules* 24(4) 801.
9. Furman, B. L., **Dang, U.J.**, Evans, B. J., & Golding, G.B. (2018). Divergent subgenome evolution after allopolyploidization in African clawed frogs (*Xenopus*). *Journal of Evolutionary Biology*, 31(12), 1945–1958.

8. Mogle B, Seabury R, **Dang U.J.**, Kufel W, and Steele J. (2018) Implementation of a two-point pharmacokinetic AUC-based vancomycin therapeutic drug monitoring approach in patients with methicillin-resistant *Staphylococcus aureus* bacteremia. *International Journal of Antimicrobial Agents* 52(6), 805–810.
7. **Dang, U.J.**, Punzo, A., McNicholas, P. D., Ingrassia, S., and Browne, R. P. (2017), ‘Multivariate response and parsimony for Gaussian cluster-weighted models’. *Journal of Classification* 34(1), 4-34.
6. **Dang, U.J.**, Alison M Devault, Tatum D Mortimer, Caitlin S Pepperell, Hendrik N Poinar, and Golding, G. B. (2016), ‘Estimation of gene insertion/deletion rates with missing data’. *Genetics* 204 (2), 513–529.
5. **Dang, U.J.** and Golding, G.B. (2016), ‘markophylo: Markov Chain Analysis on Phylogenetic Trees’. *Bioinformatics* 32 (1): 130–132.
4. **Dang, U.J.**, Browne, R.P., and McNicholas, P.D. (2015), ‘Mixtures of multivariate power exponential distributions’. *Biometrics* 71(4), 1081–1089.
3. **Dang, U.J.** and McNicholas, P.D. (2015), ‘Families of parsimonious finite mixtures of regression models’. In: Morlini, I., Minerva T. and Vichi, M., editors, *Advances in Statistical Models for Data Analysis*, Studies in Classification, Data Analysis, and Knowledge Organization. Springer International Publishing Switzerland, pp. 73–84.
2. **Dang, U.J.** and Bauch, C.T. (2011), ‘Can interactions between timing of vaccine-altered influenza pandemic waves and seasonality in influenza complications lead to more severe outcomes?’, *PLoS ONE* 6(8): e23580.
1. **Dang, U.** and Bauch, C.T. (2010), ‘A population biological approach to the collective dynamics of countries undergoing demographic transition’, *Journal of Theoretical Biology* 265(2), 167–176.

Articles (Submitted)

- Fang, Y., McDonald, C.M., Clemens, P.R., Gordish-Dressman, H., Illei, K., Hoffman, E.P., CINRG DNHS and Vamorolone 002/003/LTE Investigations, and **Dang, U.J.** Modeling early heterogeneous rates of progression in boys with Duchenne muscular dystrophy.
- Phung, K, McAdam, L, Ma, J, McMillan, H.J., Jackowski, S.A., Scharke, M., Matzinger, M, Shenouda, Koujok, K, Jarenko, J.L., Smit, K., Walker, S., Hartigan, C., Khan, N, Konji, V.N., MacLeay, L., Page, M., Sykes, E., Robinson, M., Alos, N, Cummings, E.A., Ho, J., Sbrocchi, A.M., Stein, R., Saleh, D., Craven, B.C., **Dang, U.J.**, Siminoski, K., Rauch, F., Ward, L.M.. Risk Factors Associated with Prevalent Vertebral Fractures in Duchenne Muscular Dystrophy.
- **Dang, U.J.**, Gallagher, M.P.B., Browne, R.P., and McNicholas, P.D. ‘Model-based clustering and classification using mixtures of multivariate skewed power exponential distributions’. Revisions received.
- Roy, R, **Dang, U.J.**, Huffman, K M, Alayi, T, Hathout, Y, Nagaraju, K, Visich, P S, Hoffman, E P. (2021). School children show alterations of inflammatory state associated with circadian misalignment measured by low awakening cortisol.

Software Packages

- **Dang, U. J.**, Gallagher, M.P.B., Browne, R. P., and McNicholas, P. D. (2019) ‘mixSPE: Mixtures of Power Exponential and Skew Power Exponential Distributions for Use in Model-Based Clustering and Classification’; <https://cran.r-project.org/package=mixSPE/>.

- **Dang, U. J.** and Golding, G. B. (2016) ‘indelmiss: Insertion Deletion Analysis While Accounting for Possible Missing Data’; <https://cran.r-project.org/package=indelmiss/>.
- **Dang, U. J.** and Golding, G. B. (2015) ‘markophylo: Markov chain analysis on phylogenetic trees’; <https://cran.r-project.org/package=markophylo/>.

Teaching

Course	Term
Carleton University, Ottawa	
HLTH 5150: Statistics for Health Sciences	Fall 2022 (scheduled)
HLTH 3201: Epidemiology	Spring 2022
Binghamton University, SUNY, New York	
PHRM 511: Biostatistics	Spring 2018, Spring 2019, Spring 2020, Spring 2021
PHRM 528: Population Health and Study Design Evaluation	Fall 2018, Fall 2019, Fall 2020
PHRM 551: Public Health and Global Health Problems.	Spring 2020, Spring 2021
Guest lecturer: MATH 531: Regression I/MATH 455: Intro to Regression Models	Spring 2020
Guest lecturer: MATH 459/590S: Statistical Bioinformatics	Fall 2019
Guest evaluator in PHRM 580f: Jump Start into Residency	Fall 2019
Math 597: Independent Study: Statistical Consulting	Spring 2017
Math 147: Elementary Statistics	Fall 2016, Spring 2017, Fall 2017
University of Guelph, Ontario	
STAT*2050: Statistics II	Fall 2012

Graduate/Undergraduate Project Supervision

Year	Student	Level
Summer 2022	Vanja Davidovic	Research Assistant (co-advised with Dr. Edana Cassol)
Summer 2022	Andrea Payne	Research Assistant (co-advised with Dr. Sanjeena Dang)
Summer 2022	Romika Subedi	Research Assistant
Summer 2022	Rebecca Tobin	Research Assistant
Winter – Summer 2022	Khalil Kain	Research Assistant
Summer 2021	Kevin Miller	Research Track Project (co-supervised)
Summer 2021	Mehnaz Alam, Nikesh Parikh, Su Phyu, and Khumora Nabiyeva	Capstone Research Project (co-supervised)
Spring 2021–present	Swati Mummidivarpu	Co-mentored in collaboration with Swati’s PhD advisor, Eric P. Hoffman
Summer 2020	Yuan Fang	Graduate Research Assistant
Summer 2020	Cynthia Chang, Gloria Choy, Matthew Cocharo, Maiko Lin	Capstone Research Project (co-supervised)
Spring–Summer 2020	Melinda Lee	Undergraduate Research Assistant
Fall 2019–present	Michael Ziemba	Co-mentored in collaboration with Michael’s PhD advisor, Eric P. Hoffman
Spring 2019–present	Runia Roy	Co-mentored in collaboration with Runia’s PhD advisor, Eric P. Hoffman
2015–2016	Nidhi Patel	Co-mentored in collaboration with Nidhi’s MSc advisor, Paul D. McNicholas

Graduate Student Supervision

Year	Student	Degree	Notes
Carleton University, Ottawa			
Fall 2022 onwards	Kyuson Lim	Ph.D.	Data Science and Analytics
Fall 2022 onwards	Rebecca Tobin	M.Sc.	Data Science and Analytics
Binghamton University, SUNY, New York			
Spring 2018–Summer 2020	Shefa M Tawalbeh	Ph.D.	Biomedical Engineering; co-advised
Spring 2018	Shefa M Tawalbeh	M.Sc.	Biomedical Engineering; co-advised

Successfully mentored applications for research student scholarships

- NSERC Undergraduate Student Research Award (2022)
- Health Sciences Research Internship (2022)
- Ontario Graduate Scholarship (2022)

Graduate Student Advisory Committee

Year	Student
2022 –	Clara Miller - MSc Student
2021 –	Hauna Sheyholislami - PhD Student
2021 –	Tomoko McGaughey - MSc Student

Graduate Student Examination Committee

Year	Student	Institution
Winter 2022	Nicholas Seguin - MSc Exam Committee Chair	Carleton University
Fall 2021	Simon Boushel - MSc Exam Committee	Carleton University
Fall 2021	Razieh Mansouri - MSc Exam Committee	Carleton University
Fall 2018	Shefa M Tawalbeh - Comprehensive Exam Committee	Binghamton University

University Service

Semester	Role, Committee
Carleton University, Ottawa	
Fall 2021 – present	Member, New MSc program development for Department of Health Sciences
Fall 2021 – present	Organizer, Department of Health Sciences Seminar Series
Winter 2022	Reviewer - Ontario Graduate Scholarships (OGS) and Canada Graduate Scholarships applications - Masters (CGS-M). Department of Health Sciences
Fall 2021	Faculty Representative, In-person spotlight on Department of Health Sciences.
Summer 2021 – present	Member, Carleton University Research Ethics Board (CUREB-B)
Binghamton University, State University of New York	
Spring 2020	Member, Department of Health Outcomes and Administrative Sciences Faculty Search Committee.
Spring 2019 – Spring 2021	Academic Diversity Officer, School of Pharmacy and Pharmaceutical Sciences.
Spring 2020	Chair, Department of Health Outcomes and Administrative Sciences Faculty Search Committee.
Fall 2019 – Spring 2020	Member, Department of Health Outcomes and Administrative Sciences and Office of Academic Affairs and Assessment Administrative Assistant Search Committee.
Fall 2019 – Spring 2021	Member, ACPE self-study steering committee
Fall 2019 – Spring 2021	Member, Data Science Transdisciplinary Area of Excellence: Statistical, Computational and Analytic Consulting Committee

Fall 2019	Data Science Transdisciplinary Area of Excellence Working Group on Public Health/Healthcare Data
Spring 2019	Member, SOPPS Retreat Research Presentations Planning Committee
Spring 2019 – Spring 2021	Member, Promoting Recruitment, Opportunity, Diversity, Inclusion, and Growth (PRODiG) committee
Fall 2018 – Spring 2021	Member, Committee on Awards and Progression
Fall 2018 – Spring 2019	Member, Department of Health Outcomes and Administrative Sciences and Office of Academic Affairs and Assessment Administrative Assistant Search Committee
Fall 2018 – Spring 2019	Chair, Department of Health Outcomes and Administrative Sciences Faculty Search Committee.
Spring 2018	Member, Department of Pharmaceutical Practice Chair Search Committee.
Spring 2018 – Spring 2021	Faculty Interviewer for admission to Binghamton University PharmD program.
Spring 2018 – Fall 2019	School of Pharmacy and Pharmaceutical Sciences Strategic Planning.
Spring 2018	Member, Department of Pharmaceutical Practice Clinical Assistant Professor Search Committees (Critical Care)
Spring 2018	Member, Department of Pharmaceutical Practice Clinical Assistant Professor Search Committees (Ambulatory Care)
Spring 2018	Member, Department of Pharmaceutical Practice Clinical Assistant Professor Search Committees (Psychiatry)
Fall 2017 – Spring 2021	Chair, Assessment and Evaluation Committee
Fall 2017 – Spring 2021	Faculty advisor to PharmD students.
Fall 2017, Fall 2018	Member, Course Evaluation Committee
Fall 2017 – Spring 2018	Member, Health Outcomes and Administrative Sciences Computing Labs Design committee
Fall 2017 – Summer 2019	Member, Statistical Consulting Services oversight committee

Academic Services

- Reviewer
 - For grant proposal to the Prinses Beatrix Spierfonds.
 - For abstracts to 2019 American Association of Colleges of Pharmacy Annual Meeting.
 - Evolutionary Bioinformatics.
 - Journal of Intensive Care Medicine.
 - Journal of Neuromuscular Diseases.
 - Advances in Data Analysis and Classification.
 - Journal of the American Statistical Association.
 - Journal of Personalized Medicine.
 - Journal of Classification.
 - Computational Statistics and Data Analysis.
 - Statistics in Medicine.
 - Trends in Food Science and Technology.
- Volunteer
 - For Statistical Society of Canada at the Joint Statistical Meetings. Denver, Colorado, July, 2019.
 - Statistical Society of Canada Annual Meeting. Guelph, ON, June, 2012.

Professional Society Memberships

- Statistical Society of Canada.
- The Classification Society.

Presentations (oral unless otherwise indicated)

- **Dang, U. J.**, Gallagher, M.P.B., Browne, R. P., and McNicholas, P. D., A family of skewed power exponential mixture models for clustering and classification. International Federation of Classification Societies. Porto, Portugal. July 2022.
- **Dang, U. J.** Gordish-Dressman H, Niizawa GA, Gorni K, Guglieri M, Connolly A, Wicklund M, Bertorini T, Mah JK, Thangarajh M, Smith E, Kuntz N, McDonald CM, Henricson EK, Upadhyayula S, Byrne B, Manousakis G, Harper A, Iannaccone S, Clemens PR, and the CINRG BNHS Investigators. Analysis of the longitudinal CINRG Becker Natural History Study dataset. 17th International Congress on Neuromuscular Diseases. Brussels, Belgium, July 2022.
- **Dang, U. J.** Guglieri M, Clemens PR, Perlman SJ, Smith EC, Horrocks I, Finkel RS, Mah JK, Deconinck N, Goemans N, Haberlova J, Straub V, Harper AD, Shieh PB, De Waele L, Castro D, Yang ML, Ryan MM, McDonald CM, Tulinius M, Webster R, McMillan HJ, Kuntz NL, Baranello G, Spinty S, Childs AM, Sbrocchi AM, Selby K, Nevo Y, Vilchez-Padilla J, Nascimento-Osorio A, Niks EH, de Groot IJM, Katsalouli M, VBP15-004 Investigators, and Hoffman EP. Delayed-start analysis of efficacy outcomes in placebo-to-vamorolone crossover participants in VBP15-004. Muscular Dystrophy Association Clinical & Scientific Conference, Virtual conference, March 2022. Poster.
- **Dang, U. J.** Gordish-Dressman H, Niizawa GA, Gorni K, Guglieri M, Connolly A, Wicklund M, Bertorini T, Mah JK, Thangarajh M, Smith E, Kuntz N, McDonald CM, Henricson EK, Upadhyayula S, Byrne B, Manousakis G, Harper A, Iannaccone S, Clemens PR, and the CINRG BNHS Investigators. Analysis of the longitudinal CINRG Becker Natural History Study dataset. Muscular Dystrophy Association Clinical & Scientific Conference, Virtual conference, March 2022. Poster.
- **Dang, U. J.** Modeling Clinical Outcome Variability in Duchenne Muscular Dystrophy. Carleton University Institute of Data Science Distinguished Speaker Series. Nov 2021.
- **Dang, U. J.**, Serum Biomarkers and Clinical Severity in Young Steroid-Naive Duchenne Muscular Dystrophy Boys. Carleton University Department of Health Sciences Seminar Series, Carleton University, Oct 2021.
- **Dang, U. J.**, Ziemba, M., Barbieri, M., Roy, R., Thapa, K., Russell, A., Tarleton, J., Barthel, B., Hoffman, E. Molecular Markers Of Clinical Severity In Becker Muscular Dystrophy From A Remote Study. Muscular Dystrophy Association Clinical & Scientific Conference, Virtual conference, March 2021.
- **Dang, U. J.**, Clemens, P., Gordish-Dressman, H., Hoffman, E., Schwartz, B., Mengle-Gaw, L., Leinonen, M., Smith, E., Castro, D., McDonald, E., Kuntz, N., Finkel, R., Tulinius, M., Nevo, Y., Ryan, M., Webster, R., van den Anker, J., Conklin, L., Ward, L., Damsker, J., Guglieri, M., Cooperative International Neuromuscular Research Group, Mah, J., 2.5-years Of Vamorolone Treatment In Duchenne Muscular Dystrophy: Results Of An Open Label Long-term Extension. Muscular Dystrophy Association Clinical & Scientific Conference, Virtual conference, March 2021.
- **Dang, U. J.**, Gallagher, M.P.B., Browne, R. P., and McNicholas, P. D., Model-Based Clustering and Classification Using Mixtures of Multivariate Skewed Power Exponential Distributions. Joint Statistical Meetings. Virtual conference. August 2020.
- **Dang, U. J.**, Ziemba, M., Barbieri, M., Roy, R., Thapa, K., Russell, A., Barthel, B., and Hoffman, E.P., Molecular markers of clinical severity in Becker muscular dystrophy. Poster. Accepted but conference was canceled due to COVID19. April 2020.
- **Dang, U. J.**, Gallagher, M.P.B., Browne, R. P., and McNicholas, P. D., Model-based clustering using mixtures of multivariate skewed power exponential distributions. American Mathematical Society Fall Eastern Sectional Meeting. Binghamton University, Binghamton. October 2019. **Invited**.
- **Dang, U. J.**, Laurie Conklin, Edward Smith, Jean Mah, Michela Guglieri, Yoram Nevo, Nancy Kuntz, Craig McDonald, Mar Tulinius, Monique Ryan, Richard Webster, Diana Castro, Richard S. Finkel, Paula Clemens, Yetrib Hathout, and Eric P. Hoffman. Predicting Early-age Severity using Serum

- Biomarkers in Steroid-naive Duchenne Muscular Dystrophy Patients. Muscular Dystrophy Association Clinical & Scientific Conference, Orlando, Florida, April 2019. Poster.
- Shefa M. Tawalbeh*, Alison M. Samsel, Heather Gordish-Dressman, Yetrib Hathout, **Dang, U. J.**. On behalf of the CINRG DNHS investigators and Sites. Comparison of Serum Pharmacodynamic Biomarkers in Prednisone Versus Deflazacort Treated DMD Patients. Muscular Dystrophy Association Clinical & Scientific Conference, Orlando, Florida, April 2019. Poster.
 - **Dang, U. J.**, Browne, R. P., and McNicholas, P. D. ‘Clustering and Classification using Skew Power Exponential Distributions’. Statistical Society of Canada, Montreal, Canada, June 2018.
 - **Dang, U. J.** ‘Phylogenetic comparative methods for modeling discrete character evolution using incomplete data’, University of Guelph. November 2017. **Invited.**
 - **Dang, U. J.** ‘Tools for Efficient Statistical Computing in R’. Binghamton University, March 2017.
 - **Dang, U. J.**, Browne, R. P., and McNicholas, P. D. ‘Parsimonious skew power-exponential mixture models’. International Conference on Distributions and Applications, Niagara Falls, Oct 2016. **Invited.**
 - **Dang, U. J.**, and Golding, G. B. ‘Accounting for incomplete gene family data in phylogenetic comparative methods’. Department of Biology, Binghamton University. Sep 2016. **Invited.**
 - **Dang, U. J.**, Browne, R. P., and McNicholas, P. D. ‘Power exponential mixtures and skewed extensions’. Statistical Society of Canada, St. Catherines, Canada, May 2016.
 - Golding, G. B. and **Dang, U.J.**, ‘Estimating gene indel rates in the presence of missing data’. Poster presentation. Ontario and Canada Research Chairs Symposium, Toronto, April 2015.
 - **Dang, U.J.** and Golding, G. B., ‘Inferring gene insertion deletion rates in the presence of missing data’. Symposium on Origins and Evolution of Bacterial Genomes at the Winter Meeting of the Canadian Mathematical Society, Hamilton, Canada, December 2014.
 - **Dang, U.J.**, Browne, R. P., and McNicholas, P. D. ‘Mixtures of multivariate power exponential distributions’. Guelph Graduate Conference, Guelph, Canada, May 2014.
 - **Dang, U.J.**, Ingrassia, S., and McNicholas, P. D. ‘A family of multiple response parsimonious cluster-weighted models’. CFE-ERCIM 2013, London, United Kingdom, Dec 2013. **Invited.**
 - **Dang, U.J.** and Ingrassia, S., and McNicholas, P. D. and Browne, R.P. (2013), ‘Cluster-weighted models for multivariate response and extensions’. CLADAG 2013, Modena, Italy, September 2013.
 - **Dang, U.J.** and McNicholas, P. D. ‘Cluster-weighted modeling for time-to-event data’. International Federation of Classification Societies 2013, Tilburg, The Netherlands, July 2013.
 - **Dang, U.J.** and McNicholas, P. D. ‘Cluster-weighted modeling for time-to-event data’. Statistical Society of Canada, Edmonton, Canada, May 2013.
 - **Dang, U.J.** and McNicholas, P. D. ‘Cluster-weighted modeling for time-to-event data’. Università di Catania, Catania, Italy, February 2013. **Invited.**
 - **Dang, U.J.** and McNicholas, P. D. ‘Classification using cluster-weighted modeling for time-to-event data’. Poster presentation. An International Workshop on Model Based Clustering and Classification, Catania, Italy, September 2012.
 - **Dang, U.J.** and McNicholas, P. D. ‘Cure rate analysis using cluster weighted modeling’. Università di Catania, Catania, Italy, May 2012. **Invited.**
 - **Dang, U.J.** and Bauch, C. T. ‘Flu-bacterial interaction: seasonality and vaccination strategies’. Infectious Disease Epidemiology Afficionados, Fields Institute, Toronto, May 2010. **Invited.**
 - Bauch, C. T. and **Dang, U.J.**, ‘Wealth as a source of density dependence in human population growth: evidence from the demographic transition’. Oral presentation given on behalf of Dr. Bauch at the Society for Mathematical Biology Conference. Hosted by the Centre for Mathematical Medicine, Fields Institute held at University of Toronto, Toronto, August 2009.

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Academic Employment

Assistant Professor, Carleton University (May 2019- Present)
Department of Health Sciences

Affiliate Assistant Professor, University of British Columbia (June 2019- Present)
School of Nursing

Contract Instructor, University of Victoria (January 2015- January 2017)
HLTH 425 Health Research Methods

Employment History

Consultant, IDEaS *A Multi-Stage approach to addressing sex-disparities in musculoskeletal injuries in military members* with Principal Investigator Dr. Kristi Adamo (University of Ottawa) and Department of National Defence

Ottawa, Ontario (February 2020- December 2021)

- Address sex disparities in musculoskeletal injuries, reproductive health, and barriers to recruitment and retention in the Canadian Armed Forces

Consultant- Team Lead, Women's Intensive Case Management Team, Vancouver Coastal Health Vancouver, British Columbia (December 2017 – October 2019)

- Develop and implement program evaluation of a women's-only approach to Intensive Case Management on women's health, social well-being, and access to meaningful engagement with care on Vancouver's Downtown Eastside

Mothers in Motion Master Trainer, Canadian Association for the Advancement of Women and Sport & Physical Activity (CAAWS)

Ottawa, Ontario (January 2012 – May 2015)

- Deliver regional workshops aimed at moving, mentoring and motivating mothers to be physically active and adopt healthy eating practices for themselves and their families, from infancy to adolescence
- Facilitate workshops and distribute resources to both mothers and key stakeholders in the community, in order to increase physical activity and sport participation for Ontario mothers

Consultant, Cancer Care Ontario

Ottawa, Ontario (January 2013 – May 2014)

- Enhance access to cancer screening for Indigenous, Metis, and Inuit populations in Ottawa and the surrounding area, design evaluation framework

F.E. Darroch, Carleton University

- Assist in the creation of culturally safe, relevant resources for Indigenous populations
- Develop and evaluate programming and resources

Consultant, Chronic Diseases and Health Promotion Department, World Health Organization
Geneva, Switzerland (January 2011 – June 2011)

- Support the development of global standards for chronic diseases and risk factor data, including standard methodologies for collecting, analyzing and displaying data
- Support data analysis and reporting of policy and surveillance information from the Non-Communicable Disease (NCD) Country Capacity Survey
- Assist in reviewing the chronic disease risk factor data stored in the WHO Global InfoBase to ensure data integrity of the latest information from the Stepwise Approach to Surveillance Survey (STEPS) and the Global School-based Health Survey (GSHS)
- Assist in developing tools and training materials for a variety of countries to translate STEPS and GSHS data into policy and programming

Volunteer, Indian Institute for Mother and Child (NGO)

Calcutta, India (September 2010-December 2010)

- Provide health education to the women's peace council groups
- Visit existing rural sites to address community health and social concerns
- Prepare food for malnourished children and pregnant women to be distributed in rural communities

Health Systems and Innovation Cluster, World Health Organization

Geneva, Switzerland (October 2009-February 2010, **Intern**; April 2010 – August 2010, **Consultant**)

- Develop algorithms for non-communicable diseases for the Integrated Health Technology Package, a component of the generic district health package
- Research and write guidelines on determining resource costs for specific conditions in Global South countries
- Liaise, together with Technical Officer, with the Non-Communicable Disease and Mental Health (NMH) Cluster to translate NMH protocols and guidelines into the iHTP tool for resource planning purposes

Senior Project Director "Promoting Healthy Weight Gain During Pregnancy", Weight Control & Diabetes Research Center

Miriam Hospital/Brown University (June 2006-October 2009)

- Manage a randomized-controlled trial, NIH-funded RO1 Grant examining the effects of lifestyle modification to prevent excessive weight gain during pregnancy in 400 women
- Facilitate study initiation and protocol development, including establishing procedures for accurate quantitative data collection, creating internal source documents and data collection forms, developing recruitment plans and a manual of operations
- Realize all aspects of the study, including participant recruitment, program implementation and evaluation
- Provide reports to the Institutional Review Board and granting agencies in accordance with their policies and guidelines

Research Coordinator “National Weight Control Registry”, Weight Control & Diabetes Research Center

Miriam Hospital/Brown University (August 2004 –June 2006)

- Coordinate a survey – based, million-dollar grant designed to collect data on successful weight loss techniques
- Collect data from research participants, track subject participation and outcomes
- Ensure accurate analysis and interpretation of data using common statistical methodology
- Supervise Research Assistants, including hiring, training and evaluating employees

Education

Banting Postdoctoral Research Fellowship, University of British Columbia (May 2018 – April 2019)

Men’s Health Research Program, School of Nursing

Supervisor: Dr. John Oliffe

Postdoctoral Research Fellowship, University of British Columbia (May 2016 – May 2018)

Critical Research in Health and Healthcare Inequities (CRIHHI) Unit, School of Nursing

Supervisors: Drs. Colleen Varcoe and Annette Browne

Doctor of Philosophy, University of Ottawa (September 2011 – February 2016)

School of Human Kinetics

Supervisor: Dr. Audrey Giles

Master of Public Health (MPH), University of Waterloo (September 2009 - May 2011)

Master of Education in Counselling (MEd), Providence College, Providence, Rhode Island

(September 2002 - May 2004)

Bachelor of Arts in Sociology (BA Hons), Providence College (September 1998 - May 2001)

Grants/Funding

- Principal Investigator (**Darroch, F.E.**, Hayhurst, L. Peters, P.) Public Health Agency of Canada, Family Violence Prevention. Leveraging trauma- and violence-informed physical activity to support individuals who have experienced family violence: A community- based participatory approach, 2022 -2026; \$950,000)
- Co-Investigator (Oliffe, J., Ogrodniczuk, J., Links, P., Rice, S., Kealy, D., **Darroch, F.E.**, Mootz, J., Seidler, Z., & Affleck, W.) Reducing Male Suicide. UBC Catalyzing Research Cluster Grant, 2022 – 24; \$200,000

- Co-Applicant (Principal Investigator: Oliffe, J., Co-Investigators: Ogrodniczuk, J., **Darroch, F.E.**, Rice, S., McKenzie, S., Kealy, D., Mootz, J., & Seidler, Z. Men Building Intimate Partner Relationships. New Frontiers in Research Fund- Special Call, 2022-2024; \$237,970
- Principal-Applicant (Nominated PI: Letourneau, N., (Co-PI): Pohl, C., Stewart-Tufescu, A., Nixon, K., Ross, K., (Principal Applicant): **Darroch, F.E.** Lessard, G., Leason, J., Wood, K., Scott, K., Jackson, M., Moffitt, P., Jaffe, P.G., Rickards, T., (Co-Applicants): Luke, A. ...Afifi, T., (Collaborators)Donnelly, C., ...West, Z. (2022). Alliance against Violence and Adversity (AVA): Health and Social Services Research Training Platform for System and Population Transformations in Girls and Women's Health. Canadian Institute of Health Research Training Platform (July 2022- 2028) \$2.4 million
- Co-Investigator (Hayhurst, L., **Darroch, F.E.**, Millington, B., van Ingen, C., Wilson, B.) Wheels of Change? Exploring 'Bicycles for Development' for Women and Girls in the (Post-)Pandemic Contexts of Canada, Uganda and Nicaragua. SSHRC Insight Grant, 2021 – 25; \$281,634
- Co-Investigator (Hayhurst, L., **Darroch, F.E.**, Warner, M.) Exploring the utility of virtual trauma- and violence-informed sport for development (TVISFD) Programs with LaunchPad in Moss Park, Toronto: A community-based participatory approach. E-Alliance \$18,500, 2021- 2022
- Principal Investigator (**Darroch, F.E.**, Giles, A.R. & Hillsburg, H.) Water bottles and baby bottles: Community-based participatory research to understand the experiences, media and social media portrayals of parenting track Olympians and Olympic hopefuls. SSHRC Insight Develop Grant, 2020 – 22; \$61,500
- Principal Investigator (**Darroch, F.E.**, Peters, P. & Hayhurst, L.) Strengthening Practices: Trauma- and Violence-Informed Physical Activity. SSHRC Insight Grant, 2020 – 24; \$185,000
- Principal Investigator (**Darroch, F.E.**) Mobilizing trauma- and violence- informed physical activity for marginalized communities. Carleton University SSHRC Exchange Knowledge Mobilization Grant, 2020 – 21; \$7000
- Co-Investigator (Oliffe, J., Ogrodniczuk, J., Rice, S., **Darroch, F.E.**, Affleck, W. & Creighton, G.) Reducing Male Suicide. UBC Catalyzing Research Cluster Grant, 2020 – 22; \$100,000
- Co-Investigator (Carter, L. & **Darroch, F.E.**) Making Moves: Women's only trauma informed non-contact boxing. UBC Community Engagement Partnership Recognition Fund, 2020 – 21; \$1,500
- Co-Investigator (Bungay, V., Baumbusch, J., Black, A., Bungay W., Comber, S. & **Darroch, F.E.**) Scaling Up Trauma and Violence Informed Outreach with Women Affected by Violence. SSHRC Partnership Grant, 2019 – 26; \$2,499,946
- Principal Investigator (**Darroch, F.E.** & Varcoe, C.M.) Supportive Movement. Vancouver Foundation Field of Interest Grant, 2018 – 20; \$150,000

F.E. Darroch, Carleton University

- Co-Investigator (Webb, J. & **Darroch, F.E.**) Making a Move: Family Focused Walking Program. UBC Community Engagement Partnership Recognition Fund, 2018 – 19; \$1,500
- Co-Investigator (Craig, K., Varcoe, C., **Darroch, F.E.**, Hudspith, M., Kahnnamoui, N. & Holmes, C.) EQUIP for Pain: Enhancing the capacity of primary health care providers in BC in the provision of equitable health services for people living in pain in marginalized condition in BC. Michael Smith Foundation for Health Research Convening & Collaborating (C²) Award, 2018 – 19; \$15,000
- Principal Investigator (**Darroch, F.E.** & Varcoe, C.M.) Supportive Movement: Toward Equity Oriented Health Promotion. Women's Health Research Institute Catalyst Grant, 2018; \$25,000
- Co-Investigator (Giles, A.R., **Darroch, F.E.** & Adams, T.) Project Jewel: Using Inuvialuit Ways of Knowing to Understand How On-the-Land Programming Can Foster Wellness. CIHR Catalyst Grant, 2017 – 2018; \$149,999
- Co-Investigator (PIs: Varcoe, C.M., Browne, A.J., Bungay, V.A. & Byres, D. Co-Is: Black, A., Blanchet Garneau, A., Cloutier, M., **Darroch, F.E.**, Greenwood, M.L., Heppell, L., Jenkins, E.K., Kang, H., Bindy, K., Price, R., Smith, H.L., Smylie, J.K., Varley, L., Ward, C. & Wilson, E.) Promoting health equity for Indigenous and non-Indigenous people in emergency rooms. CIHR Project Grant, 2016 – 21; \$2 million
- Principal Investigator (**Darroch, F.E.**) APplying Mobility: Supporting Physical Activity for Marginalized Pregnant and Parenting Women. Vancouver Foundation Develop Grant, 2016 – 17; \$10,000

Academic Awards and Recognition

- Nominated: New Faculty Excellence in Teaching Award (2021)
- Recognized as a 2020 Canadian Women in Global Health Emerging Leader – Canadian Society for International Health - <https://cagh-acsm.org/en/francine-darroch>
- Banting Postdoctoral Fellowship, 2018 – 2019; \$140,000
- SSHRC Postdoctoral Fellowship, 2018 – 2019; \$82,000 (declined due to Banting Fellowship)
- Michael Smith Foundation for Health Postdoctoral Trainee Award, 2016; \$83,000
- Killam Postdoctoral Research Fellowship at the University of British Columbia, 2016; \$104,000
- University of Ottawa Best PhD Dissertation Award, 2016; Nomination
- CIHR Conference Travel Award, 2016; \$1300
- Michael Smith Foundation for Health Postdoctoral Trainee Award, 2015; \$80,000 (unable accept due to timing of maternity leave)

F.E. Darroch, Carleton University

- CIHR Doctoral Research Award, 2014 -2016; \$72,000
- University of Ottawa Mobility Scholarship – Visiting Scholar at Northern Arizona University, 2015; \$4000
- University of Ottawa Travel Grant, 2013, 14 and 15; \$450 – 650
- Knowledge Translation Canada Summer Institute (Fully funded position), 2015
- CIHR Gender and Health Trainee Knowledge Translation Supplement, 2014; \$5000
- Institute of Aboriginal Peoples’ Health Scientific Director’s Award for Exemplary Knowledge Translation with Indigenous Communities, 2014
- Canadian Public Health Association NCCPH Knowledge Translation Award, 2014
- Research Centre for Sport in Canadian Society Research Scholarship, 2014; \$5000
- University of Ottawa Graduate Association Travel Grant, 2012; \$450
- Ontario Graduate Scholarship, (2013, declined 2014); \$15,000
- 7th Annual Canadian Obesity Network Boot Camp (Travel and accommodation award) 2012
- University of Ottawa Excellence Scholarship, 2011-2015; \$18,000
- University of Waterloo Practicum Scholarship, 2010; \$5,000
- University of Waterloo President’s Scholarship, 2010; \$10,000
- Providence College Graduate Academic Scholarship, 2002; \$20,000
- Providence College “Most Outstanding Senior Sociology Student” at Graduation, 2001
- Captain of nationally – ranked Providence College Cross Country & Track Teams, 2000-2001
- NCAA Academic All-American in Cross Country, 2001
- Captain and 5 – time member of Canadian World Championship Track/Cross Country Teams, 1996-1998
- Full Athletic Scholarship to Providence College, Providence, RI, 1998 – 2001; \$160,000

Graduate Supervision

2021-Present, PhD, MSc Supervisor:

1. Candace Roberts (PhD student) Critically surveying the landscape for a new approach to trauma- and violence-informed physical activity
2. Madeline Sheppard-Perkins (PhD student) Maps in action: Participatory mapping to understand socio-spatial barriers and facilitators to accessing sexual and gender-based violence support services.

F.E. Darroch, Carleton University

3. Sophia Ali (MSc student) Exploring trauma- and violence-informed physical activity programming: Refugee women's perspectives.

2020 – Present, MA Co-Supervisor (funded through my SSHRC Develop grant)

1. Sydney Smith, School of Human Kinetics, University of Ottawa, SSHRC Joseph Armand Bombardier Canada Graduate Scholarship-Master's

2020 – Present, HSTP MSc Supervisor:

1. Lilly Jean-Pierre (MSc, HSTP) Landscape of Practice: Trauma- and Violence Informed Physical Activity and Movement Coalition
2. Asha Bost (MSc, HSTP) Barriers and Facilitators of Physical Activity for LGBTQIA+ Adults
3. Andrea Szafran (MSc, HSTP) Vicarious Trauma and Service Providers: A trauma- and violence-informed approach

Sept. 2019 – May 2021, HSTP MSc Supervisor:

1. Sarita Hira (MSc HSTP) Neurobiology of Trauma- and Violence-Informed Physical Activity.
2. Jensen Mortka (MSc HSTP) Exploring Peer-Peer Supports as a Model for Enhancing Trauma- and Violence-Informed Physical Activity Programs
3. Elia Palladino (MSc HSTP) (SSHRC Joseph Armand Bombardier Canada Graduate Scholarship-Master's, 2019-2020, \$17,500; 2021 Graduate Senate Medal for Outstanding Achievement)
4. Madeline Sheppard-Perkins (MSc HSTP) South-South Cooperation Model: A Consideration for Trauma- and Violence-Informed Programming.

Sept. 2019 – Aug. 2021, MA Co- Supervisor:

1. Jessica Webb, Policy and Physical Activity Programs: Understanding the Lived Experiences of Fathers in Vancouver's Downtown Eastside. School of Human Kinetics, University of Ottawa

Graduate Student Supervisory Committee Member

2019 - Present, MSc: Lyndsay Dorder and Claudia Sendanyoye, Supervisor Dr. Paul Peters

2020 - Present, PhD: Olga Antsygina, Supervisor Dr. Mark Tremblay

2021- Present, MA: Julia Ferreira Gomes, Supervisor Dr. Lyndsay Hayhurst

Sarah Jones, Supervisor Dr. Paul Peters

Melissa Edwards, Supervisor Dr. Paul Peters

Graduate Student Thesis Examination Committee

March 2020, MSc: Evan Turner, Supervisor Dr. Mark Tremblay

Undergraduate Supervision

Ainsley Lewis – Dean's Summer Research Internship Award, 2022

Caelyn Brittain - Health Sciences Research Internship Award, 2022

F.E. Darroch, Carleton University

Jenna Seyidoglu (BHSc, 2021, Honours Thesis) Trauma- and Violence-Informed Mental Health Courts: How Lawyers can Impact Mental Health Supports

Jenna Seyidoglu (BHSc, 2021, iCUREUS Summer Student) Race and Gender Representation: A Review of Running Magazines over a Decade.

Talston Scott (BHSc, 2021, iCUREUS Student) Thematic Analysis on Shifting Media and Corporate Culture for Elite Athletes and Maternity Supports

Kate Mason (BHSc, 2021, iCUREUS Student). Environmental Scan of Physical Activity Programs in Ottawa

Sarah Malcolm (BHSc, 2021, Honours Thesis). Moderate to Vigorous Physical Activity for Women with Post-Traumatic Stress Disorder: A Rapid Review

Holly Simpson (BHSc, 2021, Honours Thesis). In-queering into LGBTQIA+ physical activity: a trauma- and violence-informed approach

Anastasia Hill (BHSc, 2021, Students as Partners Program (SaPP))

Carleton Service and Contributions

2021-Present	Co-Created the Health Sciences Anti-Racism and Equity Working Group Co-Created HSTP MSc: Peer Mentorship Program Faculty of Science Tenure and Promotion Committee
2020 - Present	Women in STEM: Pilot collaboration project, Advisory Board member
2019 - 2020	Tenure and Promotion Committee Member, Department of Health Sciences (5 faculty members reviewers)
2019 - Present	Co-Founder, Health Sciences Student Ambassador Program Consultant for Students, One Health Student Challenge, CHAIM Centre Coordinator, Health: Science, Technology and Policy MSc Concentration Graduate Cyclical Review Committee Member Founder, Health Sciences Run Crew Undergraduate and Graduate Awards Committee Member Faculty Representative: Open House, Department of Health Sciences

Publications

Published Refereed Papers	34
Refereed Papers Under Review	13
Manuscripts in Progress	5
Published Book Chapters	3
Published Reports	5
Dictionary Entry	1

*Students I supervise

Published Refereed Papers (n=34)

1. Affleck, W., Oliffe, J., Inukpuk, M., Tempier, R., **Darroch, F.E.**, Crawford, A. & Séguin, M. (2022). Suicide amongst young Inuit males: The perspective of Inuit health and wellness workers in Nunavik. *Social Science and Medicine*. <https://doi.org/10.1016/j.ssmqr.2022.100069>
2. Roberts, C.*, **Darroch, F.E.**, Giles, A.R., & van Bruggen, R. (2022). “You’re carrying so many people’s stories: vicarious trauma among fly-in fly-out service providers in Canada. *International Journal of Qualitative Studies*. <https://doi.org/10.1080/17482631.2022.2040089>
3. **Darroch, F.E.**, Varcoe, C., Hillsburg, H., Webb, J. & Roberts, C. (2022) Supportive Movement: Tackling Barriers to Physical Activity for Pregnant and Parenting Women who have Experienced Trauma. *Canadian Journal of Community Mental Health*. <https://doi.org/10.7870/cjcmh-2022-002>
4. Roberts, C.*, **Darroch, F.E.**, Giles, A.R., & van Bruggen, R. (2021). Plan A, Plan B, and Plan C- COVID-19: Adaptations for Fly-in and Fly-out Mental Health Providers during COVID-19. *International Journal of Circumpolar Health*. doi: <https://doi.org/10.1080/22423982.2021.1935133>
5. **Darroch, F.E.**, Oliffe, J.L., Gonzalez Montaner, G. & Webb, J*. (2021). Barriers to Physical Activity for Father’s Living in Marginalizing Conditions. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*. doi.org/10.1177/13634593211014275
6. Seyidoglu, J.*, Roberts, C.*, **Darroch, F.E.**, Hillsburg, H. & Schneeberg., S. (2021). Racing for Representation: A Visual Content Analysis of Popular North American Running Magazine Covers. *Communication and Sport*. <https://doi.org/10.1177/21674795211000325>
7. **Darroch, F.E.**, Roett, C., Varcoe, C., Oliffe, J.L. & Gonzalez Montaner, G. (2020). Trauma-Informed Approaches to Physical Activity: A Scoping Review. *Complementary Therapies in Clinical Practice*. doi: 10.1016/j.ctcp.2020.101224
8. Garcia, P., **Darroch, F.E.**, West, L. & Brooks-Cleator, L. (2020). Ethical Applications of Big Data-driven AI on Social Systems: Literature Analysis and Example Deployment Use Case. *Artificial Intelligence*, 11(5), 235.
9. Ollier, M., Giles, A.R., Etter, M., Ruttan, J., Day, P., Elanik, N., Goose, R., Ipana, E., Rogers, S., Storr, E., **Darroch, F.E.**, & McGuire-Adams, T. (2020). Project Jewel: Innovation in evaluation an on-the-land program. *Hotii ts’eeda – Working Together for Good Health*, 6(3), 45-50. http://www.northernpublicaffairs.ca/index/wp-content/uploads/2020/08/NPA_Volume_6_SPECIAL-ISSUE_3_August_2020_pg45-50.pdf
10. Oliffe, J.L., Rossnagel, E., Kelly, M.T., Bottorff, J.L., Seaton, C. & **Darroch, F.E.** (2019). Men’s Health Literacy: A Review and Recommendations. *Health Promotion International*. doi: [10.1093/heapro/daz077](https://doi.org/10.1093/heapro/daz077)
11. Creighton, G.M, Oliffe, J.L, Broom, A., Rossnagel, E., Ferlatte, O. & **Darroch, F.E.** (2019). “I Never Saw a Future”: Childhood Trauma and Suicidality Among Sexual Minority Women. *Qualitative Health Research*, 29(14), 2035-2047.
12. **Darroch, F.E.**, Giles, A.R., Hillsburg, H. & McGettigan-Dumas, R. (2019). Running from Responsibility: Athletic Governing Bodies, Corporate Sponsors, and the Failure to Support Pregnant and Postpartum Elite Female Distance Runners. *Sport in Society*, 22(12), 2141-2160.
13. Giles, A.R., Bauer, M.E., & **Darroch, F.E.** (2019). Risky statement? A critique of the Position Statement on Active Outdoor Play. *World Leisure Journal*, 61(1), 58-66.

14. **Darroch, F.E.** & Hillsburg, H. (2017). Keeping Pace: Mother Versus Athlete Identity Among Elite Long Distance Runners. *Women Studies International Forum*, 62, 61-68.
15. **Darroch, F.E.**, Giles, A.R., Sanderson, P., Brooks-Cleator, L., Schwartz, A., Joseph, D. & Nosker, R. (2016). The USA does “CAIR” about Cultural Safety: Examining Cultural Safety within Indigenous Health Contexts in Canada and USA. *Journal of Transcultural Nursing*, 28(3), 269-277.
16. **Darroch, F.E.**, Giles, A.R. & McGettigan-Dumas, R. (2016). Elite Female Distance Runners and Advice During Pregnancy: Sources, Content and Trust. *Women in Sport and Physical Activity Journal*, 24(2), 170-176.
17. Giles, A.R., Phillipps, B., **Darroch, F.E.** & McGettigan-Dumas, R. (2016). Elite Distance Runners and Breastfeeding: A Qualitative Study. *Journal of Human Lactation*, 32(4), 627-632.
18. **Darroch, F.E.** & Giles, A.R. (2016). Conception of a Resource: Development of a Physical Activity and Healthy Living Resource with/for Pregnant Urban Aboriginal Women in Ottawa, Canada. *Qualitative Research in Sport, Exercise and Health*, 9(2), 157-169.
19. **Darroch, F.E.** & Giles, A.R. (2016). A Postcolonial Feminist Discourse Analysis of Urban First Nations Women’s Description of Pregnancy-Related Weight Gain and Physical Activity. *Women and Birth*, 29(1), e23-e32.
20. **Darroch, F.E.** & Giles, A.R. (2015). Health/Service Providers’ Perspectives on Barriers to Healthy Weight Gain and Physical Activity in Pregnant Urban First Nations Women. *Qualitative Health Research*, 26(1), 5-16.
21. Gaudet, C. & **Darroch, F.E.** (2015). The Marathon Approach to the Comprehensive Exam and Defense. *Untangling the Colonial Mind*, 1(1), 32-39.
22. **Darroch, F.E.** & Giles, A.R. (2014). Decolonizing Health Research: Community-Based Participatory Research and Postcolonial Feminist Theory. *Canadian Journal of Action Research*, 15(3), 22-36.
23. Giles, A.R., & **Darroch, F.E.** (2014). The Need for Culturally Safe Physical Activity Promotion and Programs. *Canadian Journal of Public Health*, 105(4), e317-e319.
24. Giles, A.R., Brooks, L., McGuire-Adams, T. & **Darroch, F.E.** (2014). Drowning in the Social Determinants of Health: Understanding Policy’s Role in High Rates of Drowning in Aboriginal Communities in Canada. *Aboriginal Policy Studies*, 3(1-2), 198-213.
25. Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Grantham, K., Schaffner, A. & Wing, R.R. (2014). Does Behavioral Intervention in Pregnancy Reduce Postpartum Weight Retention? 12 Month Outcomes of the “Fit for Delivery” Randomized Trial. *American Journal of Clinical Nutrition*, 99(2), 302-311.
26. Giles, A.R., Stadig, G.S., **Darroch, F.E.**, Lynch, M., Doucette, M., Strachan, S. & the Municipality of Pangnirtung. (2014). Using a Public Health Approach to Understand “Skipping” Snowmobiles in Pangnirtung, Nunavut, Canada. *International Journal of Aquatics Research and Education*, 8(4), 6.
27. **Darroch, F.E.** & Giles, A.R. (2012). Weighing Expectations: A Post-Colonial Feminist Critique of Exercise Recommendations during Pregnancy. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health*, 10(3), 301-312.
28. Brooks, L., **Darroch, F.E.** & Giles, A.R. (2013). Policy (Mis)Alignment: Addressing Type 2 Diabetes in Aboriginal Communities in Canada. *International Indigenous Policy Journal*, 4(2), 1-17.
29. Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (2011). Practitioner Advice and Perceptions of Ideal and Expected Pregnancy Weight Gain Among Normal Weight and Overweight Women. *Journal of Women's Health*, 20(4), 585-91.

30. Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (2011). Randomized Trial of a Behavioral Intervention to Prevent Excessive Weight Gain: The "Fit for Delivery" Study. *American Journal of Clinical Nutrition*, 93(4), 772-9.
31. Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (2011). Factors Associated with Success in the "Fit for Delivery" Intervention to Reduce Excessive Gestational Weight Gain. *Obesity*, 19, s95-s95.
32. Phelan, S., Nallari, M., **Darroch, F.E.** & Wing, R.R. (2009). What do Physicians Recommend to Their Overweight and Obese Patients? *Journal of the American Board of Family Medicine*, 22(2) 115-122.
33. Zavestoski, S., Mignano, F., Agnello, K. & **Darroch, F.E.** (2004). Issue Framing and Citizen Apathy Toward Local Contamination. *Sociological Forum*, 19(2), 255-283.
34. Zavestoski, S., Mignano, F., Agnello, K., **Darroch, F.E.** & Abrams, K. (2002). Toxicity and Complicity: Explaining Consensual Community Response to a Chronic Technological Disaster. *The Sociological Quarterly*, 43(3), 385-406.

Refereed Papers Under Review (n=13)

1. **Darroch, F.E.**, Oliffe, J.L., Gonzalez Montaner, G. & Webb, J. (Accepted). A Needs Analysis of Fathers Who Experience Health Inequities. Submitted to *Men and Masculinities*.
2. **Darroch, F.E.**, Smith, S.*, Sheppard-Perkins, M.*, Giles, A.R., & Wykes, D. (In Review). Exploring the Stress of Olympic Postponement due to COVID-19 on Elite/International and World Class Parenting and Pregnant Track Athletes. Submitted to *Sport in Society*
3. Darroch, F.E., Roberts, C., St. Pierre, L., Montaner Gonzalez, G., & Adamo, K. (Submitted). Musculoskeletal Injury Risks for Pregnant and Post-pregnancy individuals in the Canadian Armed Forces: A qualitative study. *Armed Forces & Society*.
4. **Darroch, F.E.**, Schneeberg, A., Brodie, R., Ferraro, Z., Wykes, D., Hira, S.*, Giles, A., Adamo, K., & Stellingwerff, T. (Revise and Resubmit). Impact of Pregnancy in Elite to World Class Runners on Training and Performance Outcomes. Submitted to *Medicine & Science in Sports & Exercise*.
5. Scott, T.*, Smith, S.*, **Darroch, F.E.**, & Giles, A.R. (Revise and Resubmit). Media analysis of sponsors and parenting experiences of elite runners. Submitted to *Communication & Sport*.
6. Sheppard-Perkins, M.*, Mortka, J.*, Hira, S.*, Palladino, E.*, **Darroch, F.E.**, & MacDonald, H. (Accepted) A Scoping Review on South-South Co-operation for Physical Activity. *Sport and Society*.
7. Hira, S.*, Sheppard-Perkins, M.* & Darroch, F.E. (In Review). "The facilitator is not a bystander": Exploring the perspectives of interdisciplinary experts on trauma research. Submitted to: *Psychological Trauma: Theory, Practice and Policy*
8. Webb, J.* Darroch, F.E., & Giles, A.R. (Revise and Resubmit). Making Moves: An Exploration of the Lived Experiences of Fathers in Vancouver's Downtown Eastside and Their Participation in a Family Walking Program
9. Webb, J.* **Darroch, F.E.**, & Giles, A.R. (Revise and Resubmit) Father's representation in program mandates in the Downtown Eastside. *Journal of Child and Family Studies*
10. **Darroch, F.E.**, Varcoe, C., Gonzalez Montaner, G., Neville, C. & Webb, J. (Accepted). Taking "Practical" Steps: A Trauma- and Violence-Informed Physical Activity Program for Women. *Violence Against Women*
11. Simpson, H.* & **Darroch, F.E.** (In Review). In-queering into LGBTQIA+ movement: a trauma and violence-informed approach. Submitted to: *LGBT Health*

12. Sheppard- Perkins, M*, Malcolm, S*, Hira, S*, & **Darroch, F.E.** (Revise and Resubmit). High intensity physical activity for women with post-traumatic stress disorder: A rapid review. Submitted to *Mental Health and Physical Activity*
13. Palladino, E.*, Jean-Pierre, L.* & **Darroch, F.E.** (Revise and Resubmit). Landscape of practice: A participatory approach to creating a trauma- and violence-informed social learning space. Submitted to *Qualitative Research in Sport Exercise and Health*

Manuscripts in Progress (n=5)

1. **Darroch, F.E.**, Varcoe, C. & Gonzalez Montaner, G. (In Progress). Lessons Learnt: The Implementation of Trauma- and Violence-Informed Programming for Pregnant and Parenting Women.
2. **Darroch, F.E.**, Oliffe, J.L., Roberts, C., & Gonzalez Montaner, G. (In Progress). “Kids on the block” Health Disparities and Structural Violence: Lessons Learned from Health Promotion Development in a Marginalized Community.
3. Hira, S*. & **Darroch, F.E.** (In Progress). Strengthening the Case for Trauma- and Violence-Informed Physical Activity for Pregnant Women: A Review.
4. Darroch, F.E., Schneeberg, A., Wykes, D., Ferrari, Z., & Stellingwerff, T. Pregnancy and Postpartum Birth Outcomes in Elite to World Class Runners.
5. Darroch, F.E., Giles, A.R., Hillsburg, H., Stevens, S., Huddle, M., & McGettigan, R. Letsrun from it: Online bullying of elite athletes

Published Book Chapters (n= 3)

- 1) **Darroch, F.E.**, Gonzalez Montaner, G., Webb, J., Paquette-Smith, & Varcoe, C. (in press). Developing and Implementing Trauma- and Violence-Informed Physical Activity Programming. In N. Wathen & C. Varcoe (Eds.), *Implementing Trauma- and Violence-Informed Care: A Handbook for Health & Social Services*. University of Toronto Press
- 2) Giles, A.R., Brooks-Cleator, L., Glass, C., **Darroch, F.E.** & McGuire-Adams, T. (2015). Drowning Prevention. In Parachute Canada (Ed.), *Canadian Injury Prevention Resource*. Toronto, Canada: Parachute Canada.
- 3) Giles, A.R., McGuire-Adams, T. & **Darroch, F.E.** (2014). A Checklist of Skills, Knowledge, and Considerations for University-Based Researchers and Indigenous Communities. In N. Gros-Louis McHugh, K. Gentelet & S. Basile (Eds.), *Toolbox of Principles for Research in Indigenous Contexts: Ethics, Respect, Equity, Reciprocity, Collaboration and Culture*. Val d’Or, Canada: First Nations of Québec and Labrador Health and Social Services Commission, Centre de recherche en droit public de l’Université de Montréal, Université du Québec en Abitibi-Témiscamingue.

Published Reports (n= 5)

- 1) **Darroch, F.E.**, Gonzalez Montaner, G., Roberts, C., Smith, S., Fernandes da Silva, D. (2021) Canadian Armed Forces Members’ Experiences, Perceived Support and Barriers Related to Pregnancy, Postpartum, and Musculoskeletal Injuries. Prepared for Canadian Department of

F.E. Darroch, Carleton University

National Defence, Innovation for Defence Excellence and Security Program (No. CP 1b-0006). IDEaS

- 2) **Darroch, F.E.**, Gonzalez Montaner, G., Webb, J. & Varcoe, C. (2020). Taking Steps: Warrior Women's Wellness Programming. Final Report prepared for YWCA, *Crabtree Corner, and Sheway*.
- 3) **Darroch, F.E.**, Varcoe, C., Gonzalez Montaner, G. & Parker, J. (2019). Women's Intensive Case Management Team Final Evaluation Research Report. Vancouver Coastal Health.
- 4) **Darroch, F.E.**, Varcoe, C., Neville, C., Gonzalez Montaner, G., & Roett, C. (2018). Women's Intensive Case Management Team Interim Evaluation Research Report. Vancouver Coastal Health.
- 5) **Darroch, F.E.**, Giles, A.R. & Wykes, D. (2014). Evaluation Framework for the Canadian Cancer Society. Ottawa, ON: *Canadian Cancer Society*.

Dictionary Entry (n= 1)

- 1) **Darroch, F.E.** (2019). Motherhood and Sport. In *Dictionary of Sport Psychology: Sport, Exercise, and Performance Arts (1st ed)*. Pp. 184-185, D. Hackfort, R.J. Schinke & B. Strauss.

Knowledge Translation

Community Resources:

Darroch, F.E., Links, P., Ogradniczuk, J., & Oliffe, J., UBC RMS Virtual Panel recording (June 16, 2021). Preventing Men's Suicide Panel. Recording available: <https://www.youtube.com/watch?v=wAdJVxqzwo>

Darroch, F.E. & Hillsburg, H. (2020) Keeping Track Podcast: Racing for Representation – Sharing Recent Research Findings on Race Representation on Magazine Covers. <https://keeping-track.com/>

Darroch, F.E., Varcoe, C. & Neville, C. (2018) Create a Welcoming Environment for Diverse Members. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

Darroch, F.E., Varcoe, C. & Neville, C. (2018) Create a Welcoming Environment for Diverse WOMEN. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

Darroch, F.E., Varcoe, C. & Neville, C. (2018) Creating Accessible Spaces. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

Darroch, F.E., Varcoe, C. & Neville, C. (2018) Downtown Eastside Physical Activity Booklet. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

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Darroch, F.E., Varcoe, C. & Neville, C. (2018) Rate an Organization. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

Darroch, F.E., Varcoe, C. & Neville, C. (2018) Trauma- and Violence-Informed Physical Activity for Women. Adapted from EQUIP Health Care. Available at: <https://equiphealthcare.ca/trauma-and-violence-informed-physical-activity-toolkit/>

Documentary:

Moving towards trauma- and violence-informed physical activity programming. Feminist Participatory Action Research. Available at:

<https://vimeo.com/548766775/f435b294eb>

Taking Steps: Warrior Women's Wellness, Reclaiming Wellness through Trauma-and Violence Informed Physical Activity Programming (2019) Available at:

<https://vimeo.com/320342213/367c845e7c>

Animation: Trauma- and Violence-Informed Physical Activity: An Approach to Address Barriers and Enhance Access (2020) Available at: <https://www.youtube.com/watch?v=tgClXqDxtZg&t=1s>

Darroch, F.E., Dumas, M., Seyidoglu, J., Roberts, C. (2020). Visual Analysis: Racing for Representation: A visual content analysis of a Decade of Runner's World Magazine

<https://www.youtube.com/channel/UCsqX9Pnz5PGHF90ILI85JlQ>

Commentary:

Hillsburg, H., Giles, A.R. & **Darroch, F.E.** (July 2020) We Must Pay Attention to Canada's MeToo Movement. The Conversation <https://theconversation.com/we-must-pay-attention-to-canadas-metoo-moment-in-sports-133309>

Research featured in the following articles:

The baby gap: For many Canadian Olympians, getting pregnant is considered an 'injury'. National Post (December 2021). <https://nationalpost.com/sports/olympics/the-baby-gap-for-many-canadian-olympians-getting-pregnant-is-considered-an-injury/wcm/0dd179b6-30a5-4bc4-991d-be61615c5ed1/amp/?fbclid=IwAR2zw16og2e8IFUyVJQ1e3eUXGgOahogquuzg-R96wprw5T1rtbligTztc>

Blades, N. (August 2020) Alysia Montañó is the Hero of this Story.

<https://www.runnersworld.com/women/a33564557/alysia-montano-is-the-hero-of-this-story/>

The XC: *Running Has a Whiteness Problem, and We Must Fix It Now* (July 2020)

https://thexc.substack.com/p/running-has-a-whiteness-problem-and?r=2gpx6&utm_campaign=post&utm_medium=web&utm_source=copy

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CBC National: *Athlete Moms and the Fight for Funding* (May 2020)

<https://www.cbc.ca/sportslongform/entry/mother-athletes-fighting-for-funding>

Research Talks & Presentations:

Darroch, F.E. (September 2021) A Needs Analysis of Fathers on the Downtown Eastside: Practices, Policies and Interventions. (virtual) University of British Columbia. Men's Health Research Group.

Darroch, F.E. & Webb, J. (April 2019) Toward Trauma and Violence-Informed Physical Activity and Obesity Prevention Programming. 6th Canadian Obesity Summit (Obesity Canada): Ottawa, ON

Darroch, F.E., Fabiosa, R., Paquette, M. & Webb, J. (December 2018) Diverse Perspectives in Creating Trauma- and Violence-Informed Physical Activity Programming for Pregnant and Parenting Women in the Downtown Eastside. UBC School of Nursing – Invited Panel Discussion: Vancouver, BC

Webb, J. & **Darroch F.E.** (November 2018) Taking Steps: Moving Towards Community Connection through Physical Activity Programs in the DTES. 50th Marion Woodward Lecture Series, UBC School of Nursing: Vancouver, BC

Darroch, F.E. & Webb, J. (September 2018) Participatory Action Research Seminar. Invited Guest Lecture for Dr. John Oliffe Graduate Seminar, University of British Columbia: Vancouver, BC

Darroch, F.E., Webb, J. & Varcoe, C.E. (June 2018) Community – Supported Physical Activity Programming for Pregnant and Parenting Women in Vancouver's Downtown Eastside. Qualitative Research in Sport and Exercise Conference: Vancouver, BC

Webb, J., **Darroch, F.E.** & Lean, R. (March 2018) *Walking Together: A Participatory Action Research Approach to Developing Physical Activity Programming for Aboriginal Women in the Downtown Eastside.* Healthy Mothers and Healthy Babies Conference (Perinatal Services BC): Vancouver, BC

Webb, J. **Darroch, F.E.** & Lean, R. (January 2018) *Creating Culturally-safe and Trauma-informed Physical Activity Programming for Pregnant and Parenting Aboriginal Women in the Downtown Eastside: A Community Based Approach* Early Years Conference: Vancouver, BC

Darroch, F.E. & Varcoe, C.E. (November 2017) Creating Culturally- Safe and Trauma- Informed Physical Activity Programming for Pregnant and Parenting Women in the Downtown Eastside of Vancouver: A Community– Based Approach. North American Society for the Sociology of Sport Conference: Windsor, ON

Darroch, F.E., Varcoe, C. & Browne, A. (April 2017) Toward Equity- Oriented Obesity- Related Health Promotion. Canadian Obesity Conference 2017 (Obesity Canada): Banff, AB

Darroch, F.E., Giles, A.R. & McGettigan, R. (October 2016) Running from Responsibility: Athletic Governing Bodies, Corporate Sponsors, and Support for Pregnant and Parenting Elite Female Distance Runners. International Sociology of Sport Association Conference: Florida, USA

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Darroch, F.E. (May 2016) Conception of a Resource: Creating a Community-Based Online Healthy Living App to Support Urban Aboriginal Women During Pregnancy. Critical Research in Health and Healthcare Inequities - Invited Lecture: Vancouver, BC

Darroch, F.E. & Giles, A.R. (May 2016) Creation of an Online App for Urban Aboriginal Women in Ottawa: A Community-based Participatory Approach. Public Health 2016 Conference. Canadian Public Health Association: Toronto, ON

Darroch, F.E. (April 2016) Gaining Insight: A Community- Based Approach to Understanding Physical Activity and Weight Gain in Pregnancy with Aboriginal Women. National Aboriginal Physical Activity Conference: Vancouver, BC

Giles, A.R., **Darroch, F.E.** & McGettigan, R. (July 2015) Elite Female Distance Runners and Training Advice during Pregnancy. International Sociology of Sport Association Conference: Paris, France

Darroch, F.E. (June 2015) Development of a Resource: Creation of a Healthy Living Resource for Pregnant Urban Aboriginal Women in Ottawa, Canada. Knowledge Translation Institute of Canada: Edmonton, AB

Darroch, F.E. (July 2014) Conception of a Resource: Development of a Physical Activity Resource for Pregnant Urban First Nations Women in Ottawa, Canada. National Gathering of Graduate Students, Institute of Aboriginal Health: Vancouver, BC

Darroch, F.E. (May 2014) A Qualitative Analysis of the Barriers to Physical Activity and Optimal Weight Gain in Pregnant Urban First Nations Women: Service and Care Providers' Perspective. Public Health 2014 Conference (Canadian Public Health Association): Toronto, ON.

Giles, A.R., **Darroch, F.E.** & Brooks-Cleator, L. (May 2014) Cultural Safety in Health Promotion in Canada's North. International Congress on Arctic Social Sciences: Prince George, BC

Darroch, F.E. (February 2014) Being Active for Two: Determinants of Physical Activity in Pregnant First Nations Women. National Aboriginal Physical Activity Conference: Kingston, ON

Darroch, F.E., Davey, J. & Gaudet, C. (April 2013) Shamed and Blamed to Hell-th: Dominant Physical Activity and Health Discourses and Marginalized Women. International Association of Physical Education and Sport for Girls and Women (IAPESGW): Havana, Cuba

Darroch, F.E. & Giles, A.R. (April 2013) Weighing Expectations: Understanding Physical Inactivity in Pregnant Urban First Nations Women. IAPESGW: Havana, Cuba

Giles, A.R. & **Darroch, F.E.** (November 2012) Cultural Safety in Sport and Recreation: Challenges and Possibilities. North American Society for the Sociology of Sport Conference: New Orleans, LA

Darroch, F.E. (August 2012) Weighing Expectations: Understanding and Preventing Excessive Weight

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Gain in Pregnancy. Copenhagen International Summer School, Physical Activity and Sport – Current Topics and Emerging Issues from a Human and Social Science Perspective: Copenhagen, Denmark

Darroch, F.E. (July 2012) Gaining Insight: Understanding and Preventing Excessive Weight Gain in Pregnancy. 7th Annual Obesity Summer Boot Camp, hosted by The Canadian Obesity Network and CIHR: Dushesnay, QC

Poster Presentations

Darroch, F.E. (June 2016) Conceptualization of a Pregnancy Resource: Creating a Community- Based Online Healthy Living App for Urban Aboriginal Women During Pregnancy. Public Health 2016 (Canadian Public Health Association): Toronto, ON

Darroch, F.E. (May 2016) Celebrate Creation: The Development of an Online App to Prevent Obesity in Pregnancy. International Congress on Obesity: Vancouver, BC

Darroch, F.E. (June 2015) Conception of a Resource: Creation of a Healthy Living Resource for Pregnant Urban Aboriginal Women in Ottawa, Canada. Knowledge Translation Institute of Canada: Edmonton, AB

Darroch, F.E. (April 2013) Physical Activity for Two During Pregnancy: A Participatory Approach with Urban First Nations Women. Ontario Public Interest Research Group – Student Poster Presentation: University of Ottawa, Ottawa, ON

Darroch, F.E. (May 2013) Changing Understanding of Obesity: A Sociological Perspective. Canadian Obesity Summit: Vancouver, BC

Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (October 2011) Maternal Weight Gain and Behaviors During Pregnancy Predict Offspring Weight in the *Fit for Delivery* Study. The Obesity Society Annual Scientific Meeting: Orlando, FL

Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (October 2010) Practitioner Advice and Perceptions of Ideal and Expected Pregnancy Weight Gain Among Normal Weight and Overweight Women. The Obesity Society Annual Scientific Meeting: San Diego, CA

Phelan, S., Phipps, M.G., Abrams, B., **Darroch, F.E.**, Schaffner, A. & Wing, R.R. (October 2010) Randomized Trial of a Behavioral Intervention to Prevent Excessive Gestational Weight Gain: The *Fit for Delivery* Study. The Obesity Society Annual Scientific Meeting: San Diego, CA

Invited Talks, Guest Lectures, and Community Presentations

Darroch, F.E., Elmore, M., Bishop-Nriagu, M., & Zelinka, J. (February 2022). Athletics Canada Webinar Series. Pregnancy and returning to sport postpartum. Invited Talk
<https://us02web.zoom.us/rec/share/o8BkZin6SqHG0ouhX8H87frP2SLaXNp2OgABoYpLsJN1m9dTdPs sQlsj2wVgadyi.ce2VtS9EyHGrsBEk>

F.E. Darroch, Carleton University

Darroch, F.E. (February 2022) Trauma – Informed Approach to Health Inequities. HLTH 2003 Social Determinants of Health: Dr. Renate Ysseldyk. Guest Lecture, Carleton University

Darroch, F.E. (October 2021) Qualitative Research Methods. HLTH 2001 Research Methods: Dr. Laura Pickell. Guest, Lecture, Carleton University

Darroch, F.E. (May 2021) Social Determinants of Physical Activity: Considerations for Trauma-Informed Approaches. APA 1122(Spring): Physical Activity in a Global Health Context, Dr. Audrey Giles. Guest Lecture, University of Ottawa: Ottawa, ON

Darroch, F.E. (February 2021) Trauma – Informed Approach to Health Inequities. HLTH 2003 Social Determinants of Health: Dr. Renate Ysseldyk. Guest Lecture, Carleton University

Darroch, F.E. (November 2020) Sex and Gender. HLTH 2001 Research Methods: Dr. Laura Pickell. Guest, Lecture, Carleton University

Darroch, F.E. (May 2020) Social Determinants of Physical Activity: Considerations for Trauma-Informed Approaches. APA 1122(Spring): Physical Activity in a Global Health Context, Dr. Audrey Giles. Guest Lecture, University of Ottawa: Ottawa, ON

Darroch, F.E.(July 2020) Social Determinants of Physical Activity: Considerations for Trauma-Informed Approaches. APA 1122 (Summer): Physical Activity in a Global Health Context, Dr. Audrey Giles. Guest Lecture, University of Ottawa: Ottawa, ON

Darroch, F.E. (February 2020) Trauma – Informed Approach to Health Inequities. HLTH 2003 Social Determinants of Health: Dr. Renate Ysseldyk. Guest Lecture, Carleton University

Darroch, F.E. & Webb, J. (November 2019) Moving Toward Trauma – Informed Physical Activity. Coffee and Conversations: Faculty of Science Public Seminar Series, Carleton University

Darroch, F.E. (October 2019) Community-Based Research. NURS 548 Qualitative Methods and Analysis. Dr. John Oliffe. Guest Lecture, University of British Columbia: Vancouver, BC

Darroch, F.E. & Webb, J. (December 2018) Moving Toward Trauma-and Violence – Informed Physical Activity. Community Presentation to Finalize Programming: Vancouver Women’s Health Collective: Vancouver, BC

Darroch, F.E. (2018) Application of a Resource: Lessons Learned. Critical Research in Health and Healthcare Inequities Unit: Invited Guest Lecture, University of British Columbia: Vancouver, BC

Varcoe, C. & **Darroch, F.E.** (2017) Enhancing Care for Indigenous Women. Invited Lecture BC Women’s Hospital, Oak Tree Clinic: Vancouver, BC

Darroch, F.E. (2017) Equity and Physical Activity. Vancouver Women’s Health Collective: Vancouver, BC

Darroch, F.E. (2016) 'App'lying Supportive Movement: Creating an Online Application with Indigenous Women. HH/KINE 4315 Aboriginal Physical Activity and Community Health: Dr. Lyndsay Hayhurst, Guest Lecture, York University

Darroch, F.E. (May 2016). Feminist Participatory Action in Motion. NSG 5140 Qualitative Research in Nursing and Health Sciences: Guest Lecture, University of Ottawa: Ottawa, ON.

Darroch, F.E. (2016) Title. NSG 6140 Qualitative Research in Nursing and Health Sciences: Guest Lecture, University of Ottawa

Current Teaching

- HLTH 4906 Research Essay (full academic year); 4th year Undergraduate capstone course
- HLTH 5702 Inequities in Health and Health Research; Graduate course
- HLTH 3403 Gender and Health; 3rd year Undergraduate course

Directed Studies Teaching

- Winter 2021- HLTH 5800 Directed Study- Intersectional Health Research and Writing with Tracey Lindemann (MA in Journalism student)
- Winter 2021- HLTH 5800 Directed Study- Cultural Safety and Trauma-Informed Practices with Immigrant Communities with Jenna Seyidoglu (undergraduate in Health Sciences)
- Winter 2021- HLTH 5800 Directed Study- Rural Communities and Trauma-Informed Practices with Jaymie Barnabe (undergraduate in Health Sciences)
- Summer 2020- HLTH 5800 Directed Study – South-South Cooperation Models: A Scoping Review (co-supervised with Heather MacDonald) with Sarita Hira, Jensen Mortka, Elia Palladino, & Maddy Sheppard-Perkins (MSc HSTP students)
- Fall 2019 -HLTH 5800 Directed Study – Qualitative Health Research (co-supervised with Dr. Audrey Giles) with Candace Roberts (Health Sciences MSc Student)

Course Development

- HLTH 5702 Inequities in Health and Health Research; Graduate course
- HLTH 3403 Gender and Health; 3rd year Undergraduate course

Reviewing Duties

2018 - Present	American Journal of Bioethics Empirical Bioethics Vancouver Coastal Health Grant Review Committee
2017 - Present	Qualitative Research in Sport, Exercise and Health
2016 - Present	Applied Physiology, Nutrition, and Metabolism International Journal of Indigenous Health (Co-Review) Maternal and Child Health Journal Women in Sport and Physical Activity Journal

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2014 - Present Leisure Sciences

Professional Affiliations

2016 - Present North American Society for the Sociology of Sport
Society of Obstetricians and Gynecologists of Canada
2014 - Present Society for Women in Science and Technology
2012 - Present Canadian Public Health Association
2011 - Present Canadian Obesity Network Student and New Professionals

Professional Development

- National Center for Faculty Development and Diversity – Faculty Success Program (2022, 12-week program) Supported through Carleton Faculty of Science
- Livingworks Start Certificate Suicide Prevention (Elective Workshop for the Student Support Certificate) (2021)
- Certificate in Responding to Disclosures of Sexual Violence (2020) Carleton University
- Certificate in University Teaching Program (2019) Carleton University

Volunteer Work

August 2021 – Present Volunteer (Co – Founder) Mile2Marathon Mini’s Children’s Non-Profit
Community Running Program
May 2017-Present Volunteer (Co – Founder) Downtown Eastside Women’s Walking
Program: Vancouver, BC
2011-2014 Volunteer, Odawa Native Friendship Centre – Healthy Living Program:
Ottawa, ON
2009-2014 Advisory Committee Member, Run for Life (Not-For-Profit): Cambridge, ON
2001-2006 Volunteer, Women’s Center of Rhode Island, Providence, RI

CURRICULUM VITAE

Sonia Gulati, PhD, BScOT, OT Reg. (Ont.)

Updated: April 2022

Instructor II, Department of Health Sciences, Carleton University

Occupational Therapist, Casual, Bruyère Continuing Care

Research Consultant, CHEO Research Institute

Sonia.Gulati@carleton.ca

PRIMARY APPOINTMENT

2016–Present **Instructor II–Confirmed (*Full-time/Tenured Teaching Faculty*)**, Department of Health Sciences, Faculty of Science, Carleton University, Ottawa, Ontario, Canada
Research Interests: Community-Based Rehabilitation/Health, Disability/Functional Impairments, Global Health, Patient-Reported Outcomes, Action Research
Teaching Interests: Disability and Chronic Health Conditions, Global Health, Determinants of Health, Qualitative Research Methodology

**Sabbatical July 1, 2022 to June 30, 2023.*

EDUCATION & DEGREES

2009–2010 **Post-Doctoral Fellowship**, Health Services Research & Pediatric Oncology, Department of Pediatrics, McMaster University, Hamilton, ON
2005–2009 **Ph.D. Rehabilitation Science**, Specialization in Community-Based Rehabilitation & International Health, School of Rehabilitation Therapy, Queen's University, Kingston, ON
2003–2004 **Mini-M.Sc. Rehabilitation Science** (Promoted to Ph.D.), School of Rehabilitation Therapy, Queen's University, Kingston, ON
1998–2003 **B.Sc. Occupational Therapy Honours**, School of Rehabilitation Therapy, Queen's University, Kingston, ON

LICENSURE & PROFESSIONAL MEMBERSHIPS

2003–Present **College of Occupational Therapists of Ontario** (Registration # G0305407)
2003–Present **Canadian Association of Occupational Therapists** (# 87608)
2005–Present **World Federation of Occupational Therapists** (# 87608)
2016–2017 **Canadian Society for International Health** (# 14725043)

LANGUAGES & CITIZENSHIP

First English
Second Hindi (oral), Punjabi (oral), Beginner French (oral/written)
Citizenship Canadian
Place of Birth Ottawa, Ontario, Canada

EMPLOYMENT EXPERIENCE

A. Academic Employment (Teaching)

- 2019 **Faculty Associate, Centre for Engaged Learning Abroad (CELA-Belize)**, Belize
- 2016–Present **Instructor & Field Placement Advisor, Carleton University**, Department of Health Sciences
- 2011–2016 **Part-time Professor, University of Ottawa**, Interdisciplinary School of Health Sciences (2011-16), School of International Development & Global Studies (2013-16), Department of Communication (2013-16), Gerontology (2014-16), Educational Studies (2012-13)
- 2013–2016 **Contract Instructor, Carleton University**, Institute of Interdisciplinary Studies, Human Rights Program
- 2012 **Assistant Professor (Tenure-Track), University of New Hampshire**, College of Health and Human Services, USA, **Offer Declined by Candidate*
- 2003–2007 **Teaching Assistant, Queen’s University**, School of Rehabilitation Therapy

B. Academic Employment (Research)

- 2015–Present **Research Consultant, Children’s Hospital of Eastern Ontario (CHEO) Research Institute**
Principal Investigator: Dr. MéliSe Keays
- 2015–2018 **Research Consultant, SickKids Hospital Research Institute**
Principal Investigator: Dr. Kristen Davidge
- 2010–2011 **Research Associate, McMaster University**, Department of Pediatrics
Principal Investigator: Dr. Anne Klassen
- 2007–2009 **Research Assistant, McMaster University**, Department of Pediatrics

C. Clinical Employment

- 2005–Present **Occupational Therapist, Casual, Bruyère Continuing Care**, Saint-Vincent Hospital, Complex Care, and Élisabeth Bruyère Hospital, Geriatric Rehabilitation, Ottawa
- 2005–2006 **Occupational Therapist, Providence Care**, Kingston General Hospital, Acute Care, Kingston
- 2003–2004 **Occupational Therapist, Providence Care**, St. Mary’s of the Lake Hospital, Outpatient Vocational Rehabilitation, Kingston

SERVICE, ADMINISTRATION & COMMITTEE MEMBERSHIPS

- 2021-2022 **BHSc Cyclical Review Committee**
- 2021 **Chemistry (Food Sciences) & Health Sciences-Joint Instructor Hiring Committee**, Department of Chemistry, Carleton University
- 2020 **Tenure & Promotion Committee, Department of Neuroscience**, Carleton University
- 2020–2022 **Member of the Senate (2-year term)**, Carleton University
- 2019–2020 **Health Sciences Instructor-Biomedical Sciences Hiring Committee**, Carleton University
- 2019–2022 **Eastern Ontario Academic Health Sciences Network**, The Ottawa Hospital, Ottawa
- 2019 **Health Sciences Representative, Ontario Universities’ Fair**, Toronto
- 2017–Present **Reviewer, Contract Instructor Applications–Health Sciences**, Carleton University
- 2017–Present **Undergraduate Curriculum Committee–Health Sciences**, Carleton University
- 2017 **Health Sciences Hiring Committee–Environment and Global Health**, Carleton University

- 2016–Present **Carleton Committee on Community Engaged Pedagogy**, Carleton University
2016–2022 **Board Member, Mental Health Without Borders (Not-for Profit)**, Kitchener
2014–2016 **Supervising Professor, HSS Buddy Program**, Interdisciplinary School of Health Sciences, University of Ottawa
2012–2016 **Part-time Professor Representative**, University of Ottawa, Interdisciplinary School of Health Sciences (2012-13, 2014-16); Faculty of Health Sciences (2013-14, 2015-16)

HONOURS & AWARDS

- 2020 **Professional Achievement Award, \$10,000**, Carleton University
2019 **Nominated for 2019-2020 Favourite Faculty Member**, The Department of Housing and Residence Life Services, Carleton University
2019 **New Faculty Excellence in Teaching Award, \$500**, Carleton University
2018 **Nominated for Service Excellence Award 2017**, Carleton University
2013 **Fieldwork Supervisor Recognition Award**, University of Toronto
2011 **Qualitative Report Article of the Week**, Reflecting on the Methodological Aspects...
2009 **Outstanding Poster Award–Psycho-Social, \$250**, Pediatric Oncology Group of Ontario
2008 **Allied Health Student Award, \$360**, Pediatric Oncology Group of Ontario
2007 **Award for Excellence in Research–Poster, \$250**, 10th Annual Health Science Meeting for Research Trainees, Queen’s University
2005–2008 **Doctoral Student Conference Awards, \$1,200**, Queen’s University
2003 **CAOT Student Award, \$200**, Canadian Association of Occupational Therapists
2001 **Queen’s Project on International Development Certificate**, Queen’s University

PROFESSIONAL DEVELOPMENT & CONTINUING EDUCATION (Selected)

- 2022/03/09 **CAPSA Webinar: Substance Use Health: The Doorways to Stigma Free Health Outcomes**
2022/02/16 **Moving Forward Towards Wellness from here: Mental Health and Substance Use Health Resources for us All**, Community Addictions Peer Support Association, Ottawa
2021/12/03 **Development Initiatives for Indigenous Communities in India: The KISS Model and Reflections from a Canadian Perspective**, Canada-India Centre for Excellence, Carleton University
2021/12/01 **FUSION Skills Development Symposium: Transforming teaching and learning experiences across Canadian universities**, Carleton University
2021/11/27 **Canadian Global Health Students & Young Professionals Virtual Summit**, Ottawa
2021/10/28 **Instructor Accessibility Panel**, Teaching and Learning Services, Carleton University
2021/10/14 **Critical Dialogues for Action Series: Fifty Shades of Racism and Discrimination: Do we have a cure?** Sanokundu Critical Dialogues for Action Series
2021/07/20 **Rehab for Post COVID-19 Condition: Learnings from experiences to date**, Rehabilitative Care Alliance Webinar
2021/06/29 **Critical Dialogues for Action Series: Bias in Selection**, Sanokundu Critical Dialogues for Action Series
2021/06/01 **ENABLE Ottawa 2021**, Virtual Conference, In Collaboration with Carleton University
2021/04/28 **Virtual Symposium on Anti Black Racism in Medicine and Medical Education**, Office of Continuing Professional Development, Faculty of Medicine, University of Ottawa

- 2021/04/27 **Caring for Aging Loved Ones with Dementia**, Healthy Workplace Event, Carleton University
- 2021/02/25 **Kinàmàgawin Symposium**, Carleton University
- 2021/02/24 **Beautiful Minds: Changing the Lens on Stigma and Substance Use**, The Royal
- 2021/02/23 **Brightspace Basics**, Learning Platform, Carleton University
- 2021/02/18 **Indigenous Cultural Awareness Workshop**, Carleton University
- 2021/02/04 **Social Context of STEM Education** with Bryan Dewsbury, EDI Event, Carleton University
- 2020/07/08 **Zoom for Teaching Online Workshop**, Carleton University
- 2020/05/29 **Big Blue Button Workshop**, Carleton University
- 2019/10/17 **Accessibility in Higher Education Workshop**, Carleton University
- 2019/10/08 **Student Privacy Awareness Training Workshop**, Carleton University
- 2019/05/16 **Electronic Patient Records (EPR) Training-Updated**, Bruyère Continuing Care
- 2019/04/25 **Community-Based Research Excellence Tool Workshop**, Carleton University
- 2019/02/07 **Ottawa Summit on Opioids, Substance Use...**, The Royal Ottawa Health Care Group
- 2018/11/09 **Workshop–QSR NVivo 12 Software**, Carleton University
- 2018/10/23 **Experiential Learning Symposium: Fostering Student Success**, Carleton University
- 2018/07/25 **Multiple-Choice Retreat**, Carleton University
- 2018/07/11 **Basic Image Editing: Finding, Editing and Importing**, Carleton University
- 2017/08/09 **Poll Everywhere–Student Response Systems & Real-Time Testing**, Carleton University
- 2017/06/08 **Occupation and Trauma Workshop**, Canadian Association of Occupational Therapists
- 2017/06/07 **Healthcare Provider First Aid/CPR Re-Certification**, Élisabeth Bruyère Hospital
- 2017/06/01 **Preventing Plagiarism through Design**, Carleton University
- 2017/04/26 **What is your greatest teaching challenge?** Lunch & Learn Session, Carleton University
- 2016/10/05 **Ontario Medical Supply Training–Wheelchair Seating Systems**, Ontario Medical Supply
- 2016/09/12 **Top Secrets of Creating and Managing Effective Group Discussions**, Carleton University
- 2016/08/02 **Summer Institute: A Classroom for All Students**, Carleton University
- 2015/04/29 **Electronic Patient Records (EPR) Training**, Bruyère Continuing Care
- 2012–2013 **Language Training–Beginner French (FLS1911-A, FLS1911-E)**, University of Ottawa
- 2009/12/02 **Question-Persuade-Refer Suicide Prevention Model Training**, McMaster University
- 2009/06/07 **Problem-Based Learning: Legacy & Currency Workshop**, McMaster University
- 2009/03/02 **Advanced Workshop–QSR NVivo 8.0 Software**, McMaster University
- 2007/06/11 **CIHR-Quality of Life Publication & Grant Writing Workshop**, McMaster University
- 2006/05/17 **Long-Awaited Cover Up: Wound Care That Fits**, Kingston General Hospital
- 2004/12/09 **Workshop–QSR NVivo 2.0 Software**, Queen’s University
- 2002/06/21 **Sunrise Medical Seating Training**, Sunrise Medical

PEER REVIEWER

- 2019 **Textbook**, *Disability: A Diversity Model Approach in Human Service Practice* (3rd ed.)
- 2015 **Textbook**, *Aging as a Social Process: Canadian Perspectives* (6th ed.)
- 2014/04/05 **Judge–Posters**, *Epidemiology and Biostatistics Research Day*, University of Ottawa
- 2012 **Textbook**, *Understanding Human Communication* (2nd Canadian ed.)
- 2011–2016 **Journal**, *Ethnicity and Health*
- 2008/04/26 **Interviewer–Multiple Mini-Interviews**, *MScOT Applicants*, McMaster University

TEACHING *Responsible for grading full course load (100%) unless indicated otherwise.

UNDERGRADUATE COURSES		
Department of Health Sciences, Carleton University		
2021-22 (FW)	HLTH4909: Capstone-Field Placement & Research Project (*50%)	37 students
2020-21 (FW)	HLTH4909: Capstone-Field Placement & Research Project (*50%)	25 students
2020 (SS)	HLTH4909: Capstone-Field Placement (International) (*50%)	CANCELLED
2019 (F)	HLTH3503: Disability & Chronic Health Conditions	50 students
2019 (F)	HLTH3101: Global Health	68 students
2019-20 (FW)	HLTH4909: Capstone-Field Placement & Research Project (*50%)	20 students
2019 (SS)	HLTH4909: Capstone-Field Placement (International/National) (*50%)	3 students
2019 (W)	HLTH1001: Principles of Health	97 students
2018 (F)	HLTH3503: Chronic Illness & Disability	21 students
2018 (F)	HLTH3101: Global Health	29 students
2018-19 (FW)	HLTH4909: Capstone-Field Placement (*50%)	16 students
2018 (W)	HLTH1001: Principles of Health	100 students
2018 (W)	HLTH4503: Trauma-Related Illness & Disability	15 students
2017 (F)	HLTH3503: Chronic Illness & Disability	24 students
2017 (F)	HLTH3101: Global Health	53 students
2017-18 (FW)	HLTH4906: Capstone-Research Essay	7 students
2017-18 (FW)	HLTH4909: Capstone-Field Placement (*50%)	10 students
2017 (W)	HLTH1001: Principles of Health	94 students
2017 (W)	HLTH3502: Trauma-Related Illness and Disability	27 students
2016 (F)	HLTH3101: Global Health	13 students
Interdisciplinary School of Health Sciences, University of Ottawa		
2015	HSS2102-A: Communication and Health	110 students
2015	HSS3103-A: Experience of Illness, Impairment, Disability	85 students
2015	HSS3105-A: Global Citizenship and Health	115 students
2014	HSS3105-A: Global Citizenship and Health	90 students
2014	HSS3103-A: Experience of Illness, Impairment, Disability	90 students
2014	HSS3103-B: Experience of Illness, Impairment, Disability	90 students
2013	HSS2102-A: Communication and Health	110 students
2013	HSS3103-A: Experience of Illness, Impairment, Disability	65 students
2013	HSS3103-B: Experience of Illness, Impairment, Disability	90 students
2013	HSS3105-A: Global Citizenship and Health	95 students
2013	HSS2321-B: Sociopolitical & Economic Perspectives Health	170 students
2012	HSS3105-A: Global Citizenship and Health	115 students
2012	HSS2102-B: Communication and Health	110 students
2012	HSS4324-B: Selected Topics–Global Citizenship	16 students
2012	HSS2103-B: Experience of Illness, Impairment, Disability	80 students
2012	HSS1101-D: Determinants of Health	180 students
2011	HSS3321-B: Sociology of Health	80 students
2011	HSS2102-A: Communication and Health	120 students
2011	HSS2103-B: Experience of Illness, Impairment, Disability	70 students

School of International Development & Global Studies, University of Ottawa		
2016	DVM3105-A: Population Trends & International Development	20 students
2015	DVM2110-A: Health, Education Perspectives International Develop.	115 students
2015	DVM3105-A: Population Trends & International Development	20 students
2014	DVM3150-A: Qualitative Research Methods & Techniques...	30 students
2014	DVM3120-A: Special Topics–Global Health & Development	20 students
2014	DVM2110-A: Health, Education Perspectives International Develop.	115 students
2013	DVM2110-A: Health, Education Perspectives International Develop.	60 students
Gerontology, University of Ottawa		
2016	GRT2100-A: Psychosocial Aspects of Aging	100 students
2015	GRT2100-B: Psychosocial Aspects of Aging	150 students
2015	GRT2100-A: Psychosocial Aspects of Aging	90 students
2014	GRT2100-B: Psychosocial Aspects of Aging	140 students
2014	GRT2100-A: Psychosocial Aspects of Aging	90 students
Department of Communication, University of Ottawa		
2016	CMN3103-C: Qualitative Methods	60 students
2015	CMN2321-B: Nonverbal Communication	135 students
2013	CMN2321-A: Nonverbal Communication	120 students
Institute of Interdisciplinary Studies, Carleton University		
2016	HUMR4303-A: Disability Rights	17 students
2014	HUMR4303-A: Disability Rights	18 students
2013	HUMR4303-A: Special Topics in Identities–Disability Rights	17 students

GRADUATE COURSES		
Educational Studies Program, University of Ottawa		
2013	EDU5270-S1: Ethical & Legal Dimensions of Counselling	6 students
2013	EDU5473-S: Theories of Career Development	33 students
2012	EDU5471-F2: Micro-counselling	9 students
School of Rehabilitation Science, McMaster University		
2010	OT628: Person, Environment & Occupation, Professional Roles & Experiential Practicum–Clinical interviewing (*Facilitator, 1 session)	30 students
2009	OT717: Youth & Development of Self, Inquiry & Integration– Problem-based tutorials (*Tutor-in-Training, 7 sessions)	7 students

GUEST LECTURES/COURSES (INVITED)		
Center for Engaged Learning Abroad (CELA-Belize), San Ignacio, Belize		
2019/05/25- 2019/06/08	Global Health: Biology, Medicine and Public Health in the Tropics (10 days, 80 hrs)	3 students
Georgetown Hospital, Department of Psychiatry, Guyana		
2018/05/10	Occupational Therapy in Mental Health (1 lecture, 1 hr)	14 Students
Department of Health Sciences, Carleton University		
2017/02/06	HLTH5400: Community-Based Health (1 lecture, 3 hrs)	8 students

Indian Institute of Technology Gandhinagar (IITGn), Ahmedabad, India		
2016/08/09-2016/08/13	Mini-Course: International Health & Community Development (5 days, 12 hrs)	10 students
School of Psychology, University of Ottawa		
2016/03/14	PSY4122: Human Sexuality–Disability (1 lecture, 3 hrs)	60 students
2015/03/25	PSY4122: Human Sexuality–Disability (1 lecture, 3 hrs)	60 students
Interdisciplinary School of Health Sciences, University of Ottawa		
2012/11/05	HSS4331: International Health–Disability (1 lecture, 3 hrs)	60 students
2010/11/25	HSS2103: Illness, Impairment, Disability–Research (1 lecture, 1.5 hrs)	85 students
Department of Occupational Therapy, University of New Hampshire, USA		
2012/04/02	OT610: Occupation, Identity, Disability–Public Health (1 lecture, 1 hr)	35 students
School of Rehabilitation Therapy, Queen’s University		
2005	RHBS832/932: Qualitative Research–Ethnography (1 lecture, 3 hrs)	10 students
2004	RHBS877: Community-Based Rehabilitation (1 lecture, 1.5 hrs)	25 students

TEACHING ASSISTANTSHIPS (Queen’s University)	
2007	OT898/PT898: Critical Enquiry Project
2006	RHBS877: Community-Based Rehabilitation
2004	OT305: OT in Physical Dysfunction I - Impairment
2004	OT301: Theory in OT
2003	RHBS221: Introduction to Disability

FIELD PLACEMENT DEVELOPMENT & ADVISOR (TEACHING HLTH 4909)

Department of Health Sciences, Carleton University

¹ Placements are developed at government, non-governmental, hospital, and community organizations locally, nationally, and internationally. An agreement is signed between the Site and Carleton University.

² Students attend in-class seminars/lectures and spend 192 hours at the placement site.

³ An e-package with the course syllabus and grading templates is provided to all Placement Supervisors.

⁴ Instructor and Placement Supervisor are responsible for the administration and grading of the course (i.e., supervisor and instructors are both responsible for 50% of the grading).

⁵ Number of placements implemented to date are listed in the table below.

2017-18 (Fall/Winter)	10 Local Placements in Ottawa
2018-19 (Fall/Winter)	16 Local Placements in Ottawa
2019 (Full Summer)	2 International Placements in Trinidad & 1 Placement in Northern Ontario
2019-20 (Fall/Winter)	20 Local Placements in Ottawa
2020 (Full Summer)	2 International Placements in Trinidad (CANCELLED due to COVID-19)
2020-21 (Fall/Winter)	25 Local Placements in Ottawa
2021-22 (Fall/Winter)	37 Local Placements in Ottawa
2022-23 (Fall/Winter)	35 Local Placements in Ottawa

STUDENT SUPERVISION

Clinical (Graduate Student Supervision)

1. Jennifer Yang (MScOT Candidate), *International Placement–Immortelle Children’s Centre for Special Education, Trinidad*, Department of Occupational Science and Occupational Therapy, University of Toronto, May-June 2013
2. Lara Feasby (MScOT Candidate), *International Placement–Immortelle Children’s Centre for Special Education, Trinidad*, Department of Occupational Science and Occupational Therapy, University of Toronto, May-June 2013
3. Ashley Furrow (MScOT Candidate), *International Placement–Immortelle Children’s Centre for Special Education, Trinidad*, Department of Occupational Science and Occupational Therapy, University of Toronto, May-June 2013
4. Brittney Wiley (MScOT Candidate), *International Placement–Immortelle Children’s Centre for Special Education, Trinidad*, Department of Occupational Science and Occupational Therapy, University of Toronto, May-June 2012
5. Alison Hogg (MScOT Candidate), *International Placement–Immortelle Children’s Centre for Special Education, Trinidad*, Department of Occupational Science and Occupational Therapy, University of Toronto, May-June 2012

Research (Undergraduate Student Co-Supervision)

1. Iqra Syed (BSc Candidate). HTHSCI4C09–Thesis: *Experiences of First Generation South Asian and Chinese Immigrant Caregivers in Pediatric Cancer*, Department of Pediatrics, McMaster University. September 2009-April 2010.
2. Fatima Fazalullasha (BSc Candidate). HTHSCI4A09–Thesis: *Immigrant Parents’ Experiences of Caring for their Child with Cancer*, Department of Pediatrics, McMaster University. September 2009-April 2010.
3. Nicole Sidhu (BSc Candidate). HTHSCI4A09–Thesis: *Job Satisfaction, Work Related Stress and Burnout in Pediatric Oncology Staff: Initial Findings from a Qualitative Study*, Department of Pediatrics, McMaster University. September 2009-April 2010.
4. Xiaoke (Katherine) Li (BSc Candidate). HTHSCI3H03–Inquiry Project: *Experiences in Qualitative Research: A Reflection*, Department of Pediatrics, McMaster University. September 2009-April 2010.

RESEARCH PROJECTS

- 2021-2022 ***Leveraging the electronic medical record to create a highly functional research data network for observational studies in Canada – Phase I: A qualitative assessment of healthcare providers and hospital leaders views***, Children’s Hospital of Eastern Ontario Research Institute
Principal Investigator: Dr. Mélise Keays
Research Consultant: **Dr. Sonia Gulati** (responsible for aspects of data analysis)
- 2020 ***AI for Assessment of Functional Limitations in Education, Employment, and Health Care – New Frontiers in Research Fund (NFRF)–Exploration***, READ Initiative (Research, Education, Accessibility and Design), Carleton University, **To be submitted in 2020*
Collaborator: **Dr. Sonia Gulati** (review of application)
Applicants/Co-Applicants: TBD

- 2016 ***Exploring the benefits and challenges of using tablets to facilitate learning and social interaction in a special education school in Trinidad***, Immortelle Children's Centre, Port of Spain, Trinidad
Principal Investigator: **Dr. Sonia Gulati**
Co-Investigators: Dr. Raywat Deonandan, Dr. Sujay Patel
- 2015–Present ***Exploring patients' and parents' experiences with hypospadias to develop a patient-reported outcome measure***, Children's Hospital of Eastern Ontario Research Institute
Principal Investigator: Dr. Mélise Keays
Research Consultant: **Dr. Sonia Gulati** (involved in all aspects of the research project)
- 2015–2018 ***Development of a caregiver-reported outcome measure for children with congenital upper limb differences***, SickKids Hospital Research Institute, Toronto
Principal Investigator: Dr. Kristen Davidge
Research Consultant: **Dr. Sonia Gulati** (responsible for data collection/analysis)
- 2012–2013 ***Exploring the use of tablets (iPads) with children and young adults with disabilities in Trinidad***, Immortelle Children's Centre, Port of Spain, Trinidad
Student Investigators: Brittney Wiley, Alison Hogg
Co-Investigators: Dr. Debra Cameron, **Dr. Sonia Gulati**
- Cancelled ***Development of sector-specific approaches for the Public Health Agency of Canada's Strategic Relations Framework***, Faculty of Health Sciences, University of Ottawa
Principal Investigator: Dr. Sanni Yaya
Collaborator: **Dr. Sonia Gulati**
- 2009–2011 ***Job demands and rewards of working in pediatric oncology***, Department of Pediatrics, McMaster University
Principal Investigator: Dr. Anne Klassen
Postdoctoral Fellow; Research Associate: **Dr. Sonia Gulati**
- 2007–2011 ***Immigrant parents' experiences of caring for their child with cancer***, Department of Pediatrics, McMaster University
Principal Investigator: Dr. Anne Klassen
Postdoctoral Fellow; Research Associate; Research Assistant: **Dr. Sonia Gulati**
- 2003–2009 ***A critical ethnographic study of adolescents with disabilities in North India (thesis)***, School of Rehabilitation Therapy, Queen's University
Graduate Student: **Sonia Gulati**
Supervisor: Dr. Margo Paterson
Committee Members: Dr. Jennifer Medves, Dr. Rebecca Luce-Kapler

RESEARCH GRANTS & OTHER ACADEMIC FUNDING

1. **Gulati, S., & Sandhu, S.** *Course Proposal: Community-Based Health Programs and Health Technology/Telemedicine in Community Medicine*, Indian Institute of Technology Gandhinagar. **Global Initiative for Academic Network, Shastri Indo-Canadian Institute, USD \$8,000–12,000.** Submitted 10/2019 (*Results Unknown/Delayed due to COVID-19)

2. **Gulati, S.** *Mini-Course Proposal: Community-Based Health and Community-Based Health Research*, Indian Institute of Technology Gandhinagar, INDIA. **Shastri Scholar Travel Subsidy Grant, Shastri Indo-Canadian Institute \$1,500.** 2019-2020. (*Extended to 2022 due to COVID-19)
3. **Gulati, S.** *Course Proposal: Community-Based Health Programs and Community-Based Health Research Methodology*, Indian Institute of Technology Gandhinagar. **Shastri Faculty-In-Residence Programme/Global Initiative for Academic Network, USD \$12,000.** *Submitted 02/2018 – Competition Cancelled.
4. Keays, M., Klassen, A., **Gulati, S.**, Braga, L., Guerra, L., & Leonard, M. *Improving Outcomes for Children with Hypospadias: Focus on what Matters to Patients and Families, Phase 2.* **CHEO–Department of Surgery Grant, \$10,000.** 2017-2018.
5. **Gulati, S.** *Workshop: Occupation & Trauma-Expanding Occupational Therapy Practice*, Canadian Association of Occupational Therapists. **Allied Health Professional Development Fund, HealthForceOntario, \$480.25.** 2017.
6. **Gulati, S.** *Mini-Course: International Health and Community Development*, Indian Institute of Technology Gandhinagar. **Shastri Scholar Travel Subsidy Grant, \$1,000.** 2016.
7. **Gulati, S.** *CIHR-Quality of Life Program Grant & Publication Writing Workshop*, McMaster University. **Canadian Institutes of Health Research (CIHR)–Workshop, \$650.** 2007.
8. **Gulati, S.** *A Critical Ethnographic Study of Adolescents with Disabilities in North India*, Queen’s University. **Dean’s Travel Grant for Doctoral Field Research, \$3,000.** 2006-2007.
9. **Gulati, S.** *Doctoral Candidate Research*, Queen’s University. **R. S. McLaughlin Doctoral Fellowship, \$10,000.** 2006.
10. **Gulati, S.** *A Critical Ethnographic Study of Adolescents with Disabilities in North India*, Queen’s University. **International Development Research Centre (IDRC) Doctoral Research Grant, \$20,000.** 2005-2007.
11. **Gulati, S.** *Doctoral Candidate*, Queen’s University. **Doctoral Graduate Awards (Multiple), \$63,560.** 2005-2008.
12. **Gulati, S.** *A Critical Ethnographic Study of Adolescents with Disabilities in North India*, Queen’s University. **Canadian Occupational Therapy Foundation (COTF) Doctoral Scholarship, \$2,000.** 2004.
13. **Gulati, S.** *Graduate Student*, Queen’s University. **Master’s Graduate Award, \$12,250.** 2003-2004.

PUBLICATIONS

Papers in Refereed Journals

1. Wiley, B., Cameron, D., **Gulati, S.**, & Hogg, A. (2014). Exploring the use of tablets (iPads) with children and young adults with disabilities in Trinidad. *Disability and Rehabilitation: Assistive Technology*, 11(1), 32-37.
2. Abdul-Fattah, M., Hafizi, R., Abdul-Fattah, H., **Gulati, S.**, & Deonandan, R. (2014). HSS buddy program: Evaluation of its first year. *Interdisciplinary Journal of Health Sciences*, 4(1), 52-55.
3. **Gulati, S.**, Klassen, A., & Dix, D. (2014). Demands and rewards of working within multidisciplinary teams in pediatric oncology: The experiences of Canadian health care providers. *The Qualitative Report*, 19(36), 1-15.
4. Klassen, A., **Gulati, S.**, & Dix, D. (2012). Health care providers’ perspectives about working with parents of children with cancer: A qualitative study. *Journal of Pediatric Oncology Nursing*, 29(2), 92-97.

5. Dix, D., **Gulati, S.**, Robinson, P., Syed, I., & Klassen, A. (2012). Demands and rewards associated with working in pediatric oncology: A qualitative study of Canadian health care providers. *Journal of Pediatric Hematology/Oncology*, 34(6), 430-435.
6. **Gulati, S.**, Watt, L., Shaw, N., Sung, L., Poureslami, I., Klaassen, R., Dix, D. B., & Klassen, A. F. (2012). Communication and language challenges experienced by Chinese and South Asian immigrant parents of children with cancer in Canada: Implications for health services delivery. *Pediatric Blood and Cancer*, 58(4), 572-578.
7. Watt, L., **Gulati, S.**, Shaw, N., Sung, L., Dix, D., Poureslami, I., & Klassen, A. (2012). Perceptions about complementary and alternative medicine use among Chinese immigrant parents of children with cancer. *Supportive Care in Cancer*, 20(2), 253-260.
8. Klassen, A., **Gulati, S.**, Watt, L., Banerjee, A., Sung, L., Klaassen, R., Dix, D., Poureslami, I., & Shaw, N. (2012). Immigrant to Canada, newcomer to childhood cancer: A qualitative study of challenges faced by immigrant parents. *Psycho-Oncology*, 21(5), 558-562.
9. Klassen, A., **Gulati, S.**, Granek, L., Rosenberg-Yunger, Z., Watt, L., Sung, L., Klaassen, R., Dix, D., & Shaw, N. T. (2012). Understanding the health impact of caregiving: A qualitative study of immigrant parents and single parents of children with cancer. *Quality of Life Research*, 21(9), 1595-1605.
10. Watt, L., Dix, D., **Gulati, S.**, Sung, L., Klaassen, R., Shaw, N., & Klassen, A. (2011). Family-centred care: A qualitative study of Chinese and South Asian immigrant parents' experiences of care in paediatric oncology. *Child: Care, Health and Development*, 39(2), 185-193.
11. Banerjee, A., Watt, L., **Gulati, S.**, Sung, L., Dix, D., Klaassen, R., & Klassen, A. (2011). Cultural beliefs and coping strategies related to childhood cancer: The perceptions of South Asian immigrant parents in Canada. *Journal of Pediatric Oncology Nursing*, 28(3), 169-178.
12. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. (2011). Adolescent group empowerment: Group-centred occupations to empower adolescents with disabilities in the urban slums of North India. *Occupational Therapy International*, 18(2), 67-84.
13. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. (2011). Reflecting on the methodological aspects of a critical ethnographic approach used to inform change for adolescents with disabilities. *The Qualitative Report*, 16(2), 523-562.

Non-Refereed Papers

1. **Gulati, S.** (2007). ASTHA's community-based rehabilitation program in Lal Kuan: The voices of adolescents with and without disabilities. *ASTHA Annual Report 2006-2007*. New Delhi, India: ASTHA.
2. **Gulati, S.** (2005). Occupational therapy education and intervention in the developing world. *Occupational Therapy NOW*, 7(2), 3-6.
3. **Gulati, S.** (2002). An international experience: Rehabilitation development project in India. *Therapeutic Word*, 4, 14.

Thesis

1. **Gulati, S.** (2009). Enabling healthier living through group empowerment: A critical ethnographic study of adolescents with disabilities in the urban slums of North India. *Doctoral Dissertation*. Kingston, ON: Queen's University.

Abstracts in Refereed Conference Proceedings

1. Keays, M., **Gulati, S.**, Keefe, D., Stevens, C., Grandpierre, V., Guerra, L., Leonard, M., Braga, L., & Klassen, A. The Hypospadias-Q: A new patient reported outcome measure developed with patient

- and parent qualitative interviews. *The Societies for Pediatric Urology 67th Annual Meeting*, Chicago, Illinois, May 3-5, 2019. p. 28.
2. Klassen, A., **Gulati, S.**, Rosenberg-Yunger, Z., Granek, L., Watt, L., Dix, D., Klaassen, R., Sung, L., & Shaw, N. Understanding the health impact of caregiving: A qualitative study of Canadian parents of children with cancer. *International Society for Quality of Life Research 18th Annual Conference October 26-29, 2011*. Abstract #335.
 3. Watt, L., **Gulati, S.**, Klassen, A., Klaassen, R., Sung, L., Shaw, N., Dix, D., & Poureslami, I. (2010). Family-centred care: A qualitative study of Chinese and South Asian immigrant parents' experiences of care in pediatric oncology. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer*. p. 8.
 4. **Gulati, S.**, Watt, L., Shaw, N., Sung, L., Dix, D., & Klassen, A. F. (2010). Language and communication challenges experienced by Chinese and South Asian parents of children with cancer living in Canada. *42nd Congress of the International Society for Paediatric Oncology. Pediatric Blood Cancer*, 55(5), 990.
 5. Watt, L., **Gulati, S.**, Shaw, N., Sung, L., Dix, D., & Klassen, A. F. (2010). Perceptions about complementary and alternative medicine use among Chinese immigrant parents of children with cancer. *42nd Congress of the International Society for Paediatric Oncology. Pediatric Blood Cancer*, 55(5), 848-9.
 6. Robinson, P., Dix, D., **Gulati, S.**, & Klassen, A. (2010). Demands and rewards associated with working in pediatric oncology: Findings from a qualitative study. *Canadian Association for Health Services and Policy Research Conference*. p. 37.
 7. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. (2010). A conceptual framework for group empowerment: Adolescents with disabilities in the urban slums of North India. *15th Congress of the World Federation of Occupational Therapists*. p. 51.
 8. **Gulati, S.**, Robinson, P., Klassen, A., & Dix, D. (2009). Demands and rewards associated with working in pediatric oncology: Findings from a qualitative study. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer*. p. 23.
 9. Watt, L., Shaw, N., Sung, L., Dix, D., **Gulati, S.**, Banerjee, A., & Klassen, A. (2009). Use of complementary and alternative medicine among Chinese families of children with cancer. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer*. p. 10.
 10. Banerjee, A., Shaw, N., Sung, L., Dix, D., **Gulati, S.**, Watt, L., & Klassen, A. (2009). Cultural beliefs related to pediatric cancer: The perceptions of South Asian and Chinese immigrant caregivers in Canada. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer*. p. 11.
 11. **Gulati, S.**, Shaw, N., Sung, L., Dix, D., Strohm, S., Banerjee, A., & Klassen, A. (2008). Immigrant families' experiences of caring for their child with cancer: Preliminary findings. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer*. p. 6.
 12. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. (2008). Your voice counts: Empowering adolescents with disability. *Canadian Conference on International Health*. p. 180.
 13. **Gulati, S.**, Paterson, M., Medves, J., & Olney, S. (2006). "Your voice counts"... Adolescents with disabilities in the developing world. *14th Congress of the World Federation of Occupational Therapists*. p. 37.
 14. **Gulati, S.**, Paterson, M., Medves, J., & Olney, S. (2006). Voices of adolescents with disability: Towards culturally sensitive practice. *Evidence and Occupation: Building the Future, Canadian Association of Occupational Therapists Conference*. p. 37.
 15. **Gulati, S.**, Olney, S., & Paterson, M. (2005). "Your voice counts"... Exploring the perceived rehabilitation needs of South Asian adolescents with disabilities. *Multicultural Days: An International Perspective Conference*. p.50.

PRESENTATIONS

Conference Oral Presentations (Research) – *Oral presentations delivered by first author.

1. Keays, M., **Gulati, S.** Patient engagement research: The Hypospadias Q. *Department of Surgery Rounds, Children's Hospital of Eastern Ontario*. Ottawa, ON. October 10, 2018.
2. Keefe, D., **Gulati, S.**, Leonard, M., Guerra, L., Boutet, C., Klassen, A., & Keays, M. A. Satisfaction and quality of life in patients and caregivers of children with hypospadias: A qualitative study. *Societies for Pediatric Urology (SPU) Fall Congress*. Montreal, QC. September 8, 2017.
3. Watt, L., **Gulati, S.**, Shaw, N., Sung, L., Dix, D., & Klassen, A. Perceptions about complementary and alternative medicine use among Chinese immigrant parents of children with cancer. *42nd Congress of the International Society for Paediatric Oncology October 21-24, 2010*. Boston, Massachusetts. October 24, 2010.
4. Robinson, P., Dix, D., **Gulati, S.**, & Klassen, A. Demands and rewards associated with working in pediatric oncology: Findings from a qualitative study. *Canadian Association for Health Services and Policy Research May 10-13, 2010*. Toronto, ON. May 12, 2010.
5. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. A process for empowering disabled adolescents. *Participation for Social Change Conference September 26-27, 2008*. University of Ottawa, Ottawa, ON. September 26, 2008.
6. **Gulati, S.**, Olney, S., & Paterson, M. "Your voice counts" ... Exploring the perceived rehabilitation needs of South Asian adolescents with disabilities. *Multicultural Days: An International Perspective Conference June 23-25, 2005*. Child and Youth Studies, Brock University, St. Catharines, ON. June 24, 2005.

Conference Poster Presentations (Research)

1. Keays, M., **Gulati, S.**, Keefe, D., Stevens, C., Grandpierre, V., Guerra, L., Leonard, M., Braga, L., & Klassen, A. The Hypospadias-Q: A new patient reported outcome measure developed with patient and parent qualitative interviews. *The Societies for Pediatric Urology 67th Annual Meeting*, Chicago, Illinois, May 3-5, 2019.
2. Keefe, D. T., **Gulati, S.**, Guerra, L., Leonard, M.P., Boutet, C., Klassen, A., & Keays, M. Satisfaction and quality of life in patients and caregivers of children with hypospadias: A qualitative study. *Annual Collins Day Conference, Department of Surgery*. University of Ottawa, Ottawa, ON. May 12, 2017.
3. Klassen, A., **Gulati, S.**, Rosenberg-Yunger, Z., Granek, L., Watt, L., Dix, D., Klaassen, R., Sung, L., & Shaw, N. Understanding the health impact of caregiving: A qualitative study of Canadian parents of children with cancer. *International Society for Quality of Life Research 18th Annual Conference October 26-29, 2011*. Denver, Colorado, USA.
4. Watt, L., **Gulati, S.**, Klassen, A., Klaassen, R., Sung, L., Shaw, N., Dix, D., & Poureslami, I. Family-centred care: A qualitative study of Chinese & South Asian immigrant parents' experiences of care in pediatric oncology. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer November 18-20, 2010*. Toronto, ON.
5. **Gulati, S.**, Watt, L., Shaw, N., Sung, L., Dix, D., & Klassen, A. Language and communication challenges experienced by Chinese and South Asian parents of children with cancer living in Canada. *42nd Congress of the International Society for Paediatric Oncology October 21-24, 2010*. Boston, Massachusetts, USA.
6. Watt, L., **Gulati, S.**, Shaw, N., Sung, L., & Klassen, A. Understanding the health literacy and linguistic needs of Chinese and South Asian immigrant parents of children with cancer. *Canadian Association for Health Services and Policy Research Conference May 10-13, 2010*. Toronto, ON.

7. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. A conceptual framework for group empowerment: Adolescents with disabilities in the urban slums of North India. *15th Congress of the World Federation of Occupational Therapists Conference May 4-7, 2010*. Santiago, Chile.
8. **Gulati, S.**, Robinson, P., Klassen, A., & Dix, D. Demands and rewards associated with working in pediatric oncology: Findings from a qualitative study. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer November 13-14, 2009*. Toronto, ON. ***Award Recipient**
9. Watt, L., Shaw, N., Sung, L., Dix, D., **Gulati, S.**, Banerjee, A., & Klassen, A. Use of complementary and alternative medicine among Chinese families of children with cancer. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer November 13-14, 2009*. Toronto, ON.
10. Banerjee, A., Shaw, N., Sung, L., Dix, D., **Gulati, S.**, Watt, L., & Klassen, A. Cultural beliefs related to pediatric cancer: The perceptions of South Asian and Chinese immigrant caregivers in Canada. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer November 13-14, 2009*. Toronto, ON.
11. **Gulati, S.**, Watt, L., Banerjee, A., & Klassen, A. Immigrant families' experiences of caring for their child with cancer: Preliminary findings. *McMaster Child Health Trainee Research Day June 3, 2009*. McMaster University, Hamilton, ON.
12. **Gulati, S.**, Shaw, N., Sung, L., Dix, D., Strohm, S., Banerjee, A., Watt, L., & Klassen, A. Immigrant families' experiences of caring for their child with cancer: Preliminary findings. *Why Reinvent the Wheel? Making the most of National Level Health Data Sets Workshop November 25, 2008*. McMaster Child Health Research Institute, Hamilton, ON.
13. **Gulati, S.**, Shaw, N., Sung, L., Dix, D., Strohm, S., Banerjee, A., & Klassen, A. Immigrant families' experiences of caring for their child with cancer: Preliminary findings. *Pediatric Oncology Group of Ontario Multi-Disciplinary Symposium on Childhood Cancer November 21-22, 2008*. Toronto, ON.
14. **Gulati, S.**, Paterson, M., Medves, J., & Luce-Kapler, R. Your voice counts: Empowering adolescents with disability. *Canadian Conference on International Health October 26-29, 2008*. Ottawa, ON.
15. **Gulati, S.**, Paterson, M., Medves, J., & Olney, S. The voices of adolescents with disabilities in the urban slums of New Delhi, India: A critical ethnographic study in the developing world. *10th Annual Meeting for Health Sciences Research Trainees May 29, 2007*. Queen's University, Kingston, ON. ***Award Recipient**
16. **Gulati, S.**, Paterson, M., Medves, J., & Olney, S. Your voice counts: Adolescents with disabilities in the developing world. *14th Congress of the World Federation of Occupational Therapists Conference July 23-28, 2006*. Sydney, Australia.
17. **Gulati, S.**, Paterson, M., Medves, J., & Olney, S. Voices of adolescents with disability: Towards culturally sensitive practice. *Evidence & Occupation: Building the Future, Canadian Association of Occupational Therapists Conference June 1-3, 2006*. Montreal, QC.

Invited Community Oral Presentations

1. **Gulati, S.** South Asian and Chinese immigrant families' experiences of caring for their child with cancer: Research update. *Canadian Cancer Society Residential Rally*. Sackville Community Centre, Hamilton, ON. March 10, 2010.
2. **Gulati, S.** South Asian and Chinese immigrant families' experiences of caring for their child with cancer. *Canadian Cancer Society Volunteer Group*. Sackville Community Centre, Hamilton, ON. March 3, 2009.
3. **Gulati, S.** Immigrant parents' experiences of caring for their child with cancer. *BC Children's Parents Association*. Vancouver, BC. February 12, 2009.

4. **Gulati, S.** The voices of adolescents with and without disabilities in the urban slums of Lal Kuan in New Delhi. *Dissemination Session for Community Members*. Community Centre, Lal Kuan, New Delhi, India. December 17, 2006.
5. **Gulati, S.** Rehabilitation development project in India. *Queen's Project on International Development*. Queen's University, Kingston, ON. October 13, 2001.
6. **Gulati, S., & Bauman, B.** Queen's project on international development final presentation. *Association of People with Disability: Community-Based Rehabilitation Program in the Rural Villages*. Bangalore, India. August 24, 2001.

Other Poster Presentations

1. **Gulati, S.** A 50-50 Approach to Experiential Learning in an Undergraduate Health Sciences Program: Linking Field Placement Education to the Classroom. *Ottawa-Carleton University Science Education Symposium Linking Theoretical Perspective with Practical Approaches*. University of Ottawa, Ottawa, ON. November 5, 2018.
2. **Gulati, S.** Department of Health Sciences: Introducing our New Field Placement Partners! *CU75 Community-Academic Expo*. Carleton University, Ottawa, ON. *Abstract Accepted – Event Postponed/Cancelled. 2017

VOLUNTEER ACTIVITIES (SELECTED)

2001/07–2001/08	Queen's Project on International Development (Canada) & Association of People with Disability (India) , Community-based rehabilitation for children, Queen's University
1998/09–2000/04	Kingston & District Association for Community Living , Student buddy of an adolescent woman with learning difficulties, Kingston
1999/06–1999/08	Psychiatric Unit Queensway-Carleton Hospital , Recreational therapy for adults with mental health issues, Ottawa
1998/03–1998/08	Surgical Unit Queensway-Carleton Hospital , Emotional and social support for patients, and assistance with minor problem, Ottawa

CURRICULUM VITAE

Department/School: Health Sciences/ Faculty of Science/Carleton University

April 2022

a) NAME:

HOLCIK, Martin, Full Professor with tenure
Member of the Faculty of Graduate and Postdoctoral Affairs: yes (Carleton University)

b) DEGREES:

Ph.D., Molecular Biology, Carleton University, Canada, 1995
RNDr. (M.Sc.), Genetics, Comenius University, Slovak Republic, 1990
B.Sc., Biology, Comenius University, Slovak Republic, 1989

c) EMPLOYMENT HISTORY:

2017-	Full Professor with tenure, Department of Health Sciences, Carleton University
2017-	Chair, Department of Health Sciences, Carleton University
2013-2017	Senior Scientist, Children's Hospital of Eastern Ontario Research Institute, Ottawa
2013-2017	Full Professor, Department of Pediatrics, University of Ottawa
2006-2017	Program Director, Molecular Biomedicine, Children's Hospital of Eastern Ontario Research Institute
2007- 2013	Associate Professor, Department of Pediatrics, University of Ottawa
2001- 2007	Assistant Professor, Department of Pediatrics, University of Ottawa
2001- 2013	Scientist, Children's Hospital of Eastern Ontario Research Institute, Ottawa
1999-2000	Senior Scientist, Apoptogen Inc, Ottawa
1996-1999	Postdoctoral Fellow, Children's Hospital of Eastern Ontario Research Institute, Ottawa
1995-1996	Postdoctoral Fellow, Howard Hughes Medical Institute, Philadelphia, USA

d) ACADEMIC HONOURS: (F.R.S., F.R.S.C., Governor Generals Award, honorary degree, etc...)

Carleton University Faculty Graduate Mentoring Award, 2022
CHEO Research Institute, Award of Excellence, 2009
University of Ottawa Young Researcher Award, 2007
Faculty of Medicine Young Professor Award, 2007
Canadian Institutes of Health Research, New Investigator, 2001-2006
Medical Research Council of Canada Fellowship, 2000
Medical Research Council of Canada Fellowship, 1998
Cooley's Anemia Foundation Research Fellowship, 1996

e) SCHOLARLY AND PROFESSIONAL ACTIVITIES: (past 8 years)

Recent Patents on Anticancer Drug Discovery – Editorial Board Member
International Journal of Molecular Sciences – Academic Editor, Special Issue on Protein Synthesis and Disease
Translation – Editorial Board Member
Current Genomics – Editorial Board Member
International Journal of Molecular Sciences – Guest Editor, Special Issue Protein Synthesis and

Disease

f) STUDENT SUPERVISIONS: (career numbers)

GRADUTE: Completed: 5 Ph.D., 9 M.Sc.

NAME OF STUDENTS (past eight years)

- Savannah Sauve (M.Sc.-HSTP), September 2021 – present (supervisor)
- Eiti Rautela (M.Sc.-HSTP), September 2021 – present (supervisor)
- Crisel Juan (M.Sc.:HSTP), September 2020 – present (supervisor)
- Ammanie Abdul-Fatah (M.Sc.:HSTP), September 2020 – present (supervisor)
- Leila Esmaeilisaraji (M.Sc.:HSTP), September 2020 – present (supervisor)
- Angelo Slade (Ph.D.), September 2019 – present (supervisor)
- Krishna Bhattarai (Ph.D.), September 2018 – present (supervisor)
- Travis Richard (M.Sc.), September 2014- May 2017 (supervisor)
- Golnoush Hassanzadeh (M.Sc.), December 2014 – February 2017 (supervisor)
- Sarah Shaikho (M.Sc.), January 2014 – April 2016 (supervisor)
- Lynn Courteau (M.Sc.) September 2012 – September 2014 (supervisor)
- Peng Liu (M.Sc.) September 2010 – August 2013 (supervisor)
- Danielle Durie (M.Sc.) September 2010 – 2012 (supervisor)
- Mame Daro Faye (Ph.D.), January 2010 – December 2014 (supervisor)
- Urszula Liwak (Ph.D.), Sept. 2009 – July 2014 (supervisor)
- Faraz Farooq (Ph.D.), September 2007 –2012 (co-supervisor)
- Lindsay E. Jordan (M.Sc.), August 2006 – 2011 (supervisor)
- Tyson Graber (Ph.D.), Sept. 2004 – 2010 (supervisor)

Postdoctoral Fellows:

- Duale Ahmed, January 2021 -
- Christine Dobson, November 2014 – December 2016
- Urszula Liwak, August 2014 – November 2015
- Turaya Naas, September 2012-December 2016
- Hapsatu Mamady, January 2012-October 2014
- Nehal Thakor, February 2008-August 2013

Student Scholarships:

- Krishna Bhattarai, OGS, NSERC Alexander Graham Bell Doctoral award
- Alura Riley - CIHR M.Sc. Scholarship
- Lindsay E. Jordan – CIHR Doctoral Award
- Tyson Graber – CIHR Doctoral Award
- Urszula Liwak – OGS (2x)
- Mame Daro Faye – Vanier Canada Doctoral Scholarship, OGS
- Lynn Courteau – OGSST
- Sarah Shaikho – University of Ottawa Award of Excellence; uOttawa Destination 2020 Scholarship
- Golnoush Hassanzadeh, University of Ottawa Award of Excellence

Thesis advisory committees: 59

Comprehensive Examinations: 34

Thesis examinations: 51 (of which 3 Ph.D. examinations were international)

UNDERGRADUTE: Since joining Carleton University

4th year Honour Thesis Students:

- Ribal Kattini (2019/20)
- Chloe Campbell (2019/20)
- Brianna Frangione (2021/22)

HLTH 4901 Directed Studies Students:

- Ribal Kattini (2018/19)
- Brianna Frangione (2021)

iCUREUS Students:

- Romanah Ahmed (April – August 2018)
- Ribal Kattini (January – April 2019)
- Brianna Frangione (May – August 2021)
- Megan Williams (January – April 2022)

Dean of Science Research Internship (DSRI) Summer Students:

- Romanah Ahmed (2018)
- Brianna Rino (2019)

Health Sciences Research Internship (HSRI) Summer Students:

- Hira Khan (2018)
- Chloe Campbell (2019)
- Megan Williams (2021)

MITACS RTA:

- Brianna Rino (2020)

NSERC USRA:

- Sydney Vallati (2020; declined due to COVID)
- Conall McCutcheon (2021)

Students as partners program (SaPP):

- Romanah Ahmed, (Fall 2020)
- Brianna Frangione (Summer 2020, Winter 2021, Summer 2021)

g) COURSES TAUGHT: (past eight years)

GRADUATE

University of Ottawa – CMM 5372 Cell Signalling	Fall 2017
University of Ottawa – BCH/MIC8123 Advanced topics in cell death	Fall 2016
University of Ottawa – BCH7999	Winter 2015
University of Ottawa – BCH7999	Winter 2014
University of Ottawa – BCH7999	Winter 2013
University of Ottawa – BCH/MIC8123 Advanced topics in cell death	Fall 2013
University of Ottawa – BCH/CMM8310 Current topics in RNA biology	Fall 2013

UNDERGRADUATE COURSES: (past eight years)

Carleton University – HLTH 2002	F2018, F2019, W2021, S2021, W2022, S2022
Carleton University – HLTH 3401	W2018, W2019, W2020, W2021, W2022
University of Ottawa – BCH4040	Winter 2016
University of Ottawa – BCH4040	Winter 2015
University of Ottawa – BCH4040	Winter 2014
University of Ottawa – BCH4040	Winter 2013

h) EXTERNAL RESEARCH FUNDING: (past eight years)

<u>Year</u>	<u>Source</u>	<u>Type</u>	<u>Amount per year</u>	<u>Purpose</u>
2010-15	CIHR Principal investigator: M. Holcik	C	\$116,710	research
2010-15	NSERC DG Principal investigator: M. Holcik	C	\$33,000	research
2012-17	CIHR Principal investigator: B. Jasmin	C	\$162,750	research
2014-15	MitoCanada Principal Investigator: M. Lines	F	\$60,000	research
2014-15	W. Garfield Weston Foundation Award Principal co-investigator: K. Adamo	F	\$18,000	research
2014-16	CRS Principal Investigator: M. Holcik	C	\$60,000	research
2015-16	CHAMO Principal co-investigator: R. Ramphal	G	\$100,000	research
2015-20	NSERC DG Principal investigator: M. Holcik	C	\$34,000	research
2015-20	CIHR Principal co-investigator: K. Adamo	C	\$134,000	research
2016/17	CHAMO Principal co-investigator: M. Geraghty	G	\$88,605	research

2016-17 CIHR RDMM	C	\$25,000	research
Principal investigator: M. Holcik			
2016-21 MitoCanada	F	\$56,686	research
Principal co-investigator: P. Chakraborty			
2020-25 NSERC DG	C	\$42,000	research
Principal investigator: M. Holcik			
2020 NSERC RTI	C	\$150,000	research infrastructure
Principal investigator: M. Holcik			
2021 NSERC RTI	C	\$150,000	research infrastructure
Principal investigator: M. Holcik			

Type: C-Granting councils; G-Government; F-Foundations; O-Other

i) PATENTS: (career numbers)

US Patent #	Title
6159709	XIAP IRES and uses thereof
6171821	XIAP IRES and uses thereof
6673917	Antisense IAP nucleic acids and uses thereof
US60/676567	Methods and reagents for inhibiting ER stress-induced apoptosis
US2006123501-A1	Treating an inflammatory disorder in a subject, e.g. sepsis comprises administering to the subject an antagonist of cIAP2 expression and/or function, thus treating the disorder
US2003190659-A1	New nucleobase oligomers that inhibit expression of inhibitor of apoptosis gene, useful for treating cancer and other lymphoproliferative disorders by inducing apoptosis
USP 765734	Method for differentiating between multiple sclerosis subtypes
European Patent #	Title
1100900	XIAP IRES and uses thereof
EP1330519-A	Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative diseases
07701772.1	Method for differentiating between multiple sclerosis subtypes
Canadian Patent #	Title
2336707	XIAP IRES and uses thereof
2431571	Antisense IAP nucleic acids and uses thereof

World Patent

- WO2006116862-A1 Identifying compound that inhibit apoptosis
WO2003080638-A2 New nucleobase oligomers that inhibit expression of inhibitor of apoptosis gene, useful for treating cancer and other lymphoproliferative disorders by inducing apoptosis
WO200226968-A2 Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative diseases

j) PUBLICATIONS:

1) Life-time summary (count) according to the following categories:

- Books authored.....	0
- Books edited.....	1
- Chapters in books	11
- Papers in <u>refereed</u> journal.....	104
- Papers in refereed conference proceedings.....	0
- Major invited contributions and/or technical reports	0
- Abstracts and/or papers read.....	76
- Others (invited lectures, commentaries, editorials).....	67

2) Details for past seven (8) years for same categories as above:

Books edited:

1. Apoptosis in the 21st century: clinical and therapeutic utility. Ed. by **M. Holcik**, R.G. Korneluk, A.E. MacKenzie and E. LaCasse, Cambridge University Press, 2005 (second edition 2012)

Non-refereed Chapters in Books:

7. Thakor, N. and **M. Holcik**. Affinity purification and identification of IRES trans-acting factors, in S. Magdeldin (ed), Affinity Chromatography (INTECH, 2012) pp145-164
8. **Holcik, M.** Subcellular RNA Localization, in S. Maloy and K. Hughes (eds), Brenner's Encyclopedia of Genetics, 2nd Edition (Elsevier, 2012)
9. Farooq, F. T., **Holcik, M.**, and A. E. MacKenzie. Spinal Muscular Atrophy: Classification, Diagnosis, Background, Molecular Mechanism and Development of Therapeutics, in U. Kishore (ed), Neurodegenerative Diseases (INTECH, 2013) pp 561-579
10. **Holcik, M.** Translation, its control in apoptosis and cancer, in A. Parsyan (ed), Translation Control and Cancer (Elsevier, 2014), pp 395-420
11. **Holcik, M.** Internal Ribosome Entry Site-Mediated Translation in Neuronal Protein

Synthesis. In W. Sossin (ed), *The Oxford Handbook of Neuronal Protein Synthesis* (Oxford Handbooks Online, 2018), pp 1-26, DOI: 10.1093/oxfordhb/9780190686307.013.9.

Papers in refereed Journals: (<https://www.ncbi.nlm.nih.gov/pubmed/?term=holcik+m>)

62. Thakor, N., and **M. Holcik**. 2012. IRES-mediated translation of cellular mRNA operates in eIF2 α -independent manner during stress. Nucleic Acids Research, 40 (2): 541-552
63. Uniacke, J., Holterman, C.E., Franovic, A., Lachance, G., Fabian, M.R., Payette, J., **M. Holcik**, Pause, A., and S. Lee. 2012. An oxygen-regulated switch in the protein synthesis machinery. Nature, 486 (7401): 126-129
64. Liwak, U., Thakor, N., Jordan, L.E., Roy, R., Lewis, S.M., Pardo, O., Seckl, M., and **M. Holcik**. 2012. Tumor suppressor PDCD4 represses internal ribosome entry site-mediated translation of antiapoptotic proteins and is regulated by S6 kinase 2. Mol Cell Biol, 32 (10): 1818-1829
65. Liwak, U., Faye, M.D., and **M. Holcik**. 2012. Translation control in apoptosis. Experimental oncology, 34 (3): 218-230
66. Faye, M.D., Graber, T.E., Liu, P., Thakor, N., Baird, S.D., Durie, D., and **M. Holcik**. 2013. Nucleotide composition of cellular Internal Ribosome Entry Sites Defines Dependence on NF45 and predicts a posttranscriptional mitotic regulon. Mol Cell Biol, 33 (2): 307-318
67. Farooq F., **Holcik, M.**, and A. E. Mackenzie. 2013. Celecoxib increases SMN and survival in a severe spinal muscular atrophy mouse model via p38 pathway activation. Human Molecular Genetics, 22(17):3415-24
68. Durie, D., Hatzoglou, M., Chakraborty, P., and **M. Holcik**. 2013. HuR controls mitochondria morphology through the regulation of Bcl-xL translation. Translation, 1(1): 1-9
69. Melanson, B.D., Cabrita M.A., Bose, R., Hamill, J.D., Pan, E., Brochu, C., Macellus, K.A., Zhao, T.T., **Holcik, M.**, and B.C. McKay. 2013. A novel cis-acting element from the 3' UTR of DNA damage-binding protein 2 mRNA links transcriptional and post-transcriptional regulation of gene expression. Nucleic Acids Research, 41(11): 5692-703.
70. Silva, A., Sampaio-Marques, B., Fernandes, A., Carreto, L., Rodrigues, F., **Holcik, M.**, Santos, M.A.S., and P. Ludovico. 2013. Involvement of HSP90 isoforms in yeast cells response to stress and cell death induced by acetic acid. PLoS ONE, 8(8): e71294.
71. Liwak, U., Jordan, L. E., Davidson Von-Holt, S., Singh, P., Hanson, J.E.L., Lorimer, I.A., Roncaroli, F., and **M. Holcik**. 2013. Loss of PDCD4 contributes to enhanced chemoresistance in Glioblastoma Multiforme through de-repression of Bcl-xL translation. Oncotarget, 4(9): 1365-72
72. Sleiman, L., Beanlands, R., Hasu, M., Thabet, M., Norgaard, A., Chen Y.X., **Holcik, M*** and S. Whitman. 2013. Loss of cIAP2 reduces atherosclerosis in atherogenic ApoE $^{-/-}$

C57Bl/6 mice on High-Fat Diet. Journal of the American Heart Association, 2(5):e000259 (*corresponding author)

73. Hadwen, J., MacKenzie, D., Shamim, F., Mongeon, K., **Holcik, M.**, MacKenzie, A., and F. Farooq. 2014. VPAC2 receptor agonist BAY 55-9837 increases SMN protein levels and moderates disease phenotype in severe spinal muscular atrophy mouse model. Orphanet Journal of Rare Diseases, 9 (1):4, doi: 10.1186/1750-1172-9-4.
74. Faye, M.D., Graber, T.E., and **M. Holcik**. 2014. Assessment of selective mRNA translation in mammalian cells by polysome profiling. J. Vis. Exp., 92, e52295, doi:10.3791/52295
75. Chakraborty, P.*, Schmitz-Abe, K., Kennedy, E.K., Mamady, H., Naas, T., Durie, D., Campagna, D.R., Lau, A., Sendamarai, A.K., Wiseman, D.H., May, A., Jolles, S., Connor, P., Powell, C., Heeney, M.H., Giardina, P.J., Klaassen, R., Kannengiesser, C., Thuret, I., Thompson, A., Marques, L., Hughes, S., Bonney, D., Bottomley, S.S., Wynn, R., Laxer, R.M., Minniti, C., Moppett, J., Bordon, V., Geraghty, M., Joyce, P.B.M., Markianos, K.*, Rudner, A.D.*, **Holcik, M.***, and M. Fleming*. 2014. Mutations in TRNT1, encoding the CCA-adding enzyme, cause congenital sideroblastic anemia with B cell immunodeficiency, periodic fevers and developmental delay. Blood, 124(18):2867-71 * senior co-authors directed the work equally
76. Faye, M.D., and **M. Holcik**. 2014. The role of IRES trans-acting factors in apoptosis and cancer. Biochimica et Biophysica Acta – Gene Regulatory Mechanisms, pii: S1874-9399(14)00254-5
77. Roy, R., Durie, D., Jordan, L.E., Hue, L., Qian, L.B., Skehel, M., Mauri, F., Lin, G., **Holcik, M.**, Seckl, M.J., and O.E. Pardo. 2014. hnRNPA1 couples nuclear export and translation of specific mRNAs downstream of FGF2/S6K2 signalling. Nucleic Acids Research, 42(20):12483-12497
78. Brett, K.E., Ferraro, Z., **Holcik, M.**, and K.B. Adamo. 2015. Prenatal physical activity and diet composition may affect nutrient transport and mTOR signaling in the human placenta. Placenta, 36(2): 2014-212
79. Liberman, N., Gandin, V., Svitkin, Y.V., David, M., Virgili, G., Jaramillo, M., **Holcik, M.**, Nagar, B., Kimchi, A., and N. Sonenberg. 2015. DAP5/p97 associates with eIF2 β and eIF4AI to promote Internal Ribosome Entry Site driven translation. Nucleic Acids Research, 43(7): 3764-75
80. Courteau, L., Crasto, J., Hassanzadeh, G., Baird, S.D., Hodgins, J., Liwak-Muir, U., Fung, G., Luo, H., Stojdl, D.F., Screatton, R.A., and **M. Holcik**. 2015. Hexokinase 2 controls cellular stress response through localization of an RNA binding protein. Cell Death and Disease, Aug 6;6:e1837. doi: 10.1038/cddis.2015.209
81. Brett, K., Ferraro, Z., **Holcik, M.**, and K. Adamo. 2015. Placenta nutrient transport-related gene expression: the impact of maternal obesity and excessive gestational weight gain. The Journal of Maternal-Fetal & Neonatal Medicine, 29(9):1399-405

82. Kernohan, K.D., Tétreault, M., Liwak-Muir, U., Geraghty, M.T., Qin, W., Venkateswaran, S., Davila, J.; Care4Rare Canada Consortium, **Holcik, M.**, Majewski, J., Richer, J., and K.M. Boycott. **2015**. Homozygous mutation in the eukaryotic translation initiation factor 2alpha phosphatase gene, PPP1R15B, is associated with severe microcephaly, short stature, and intellectual disability. Human Molecular Genetics, 24(22): 6293-6300
83. Faye, M.D., Beug, S., Graber, T.E., Earl, N., Langlois, S., Cowan, K.N., Korneluk, R.G., and **M. Holcik**. **2015**. IGF2BP1 controls cell death and drug resistance in rhabdomyosarcomas by regulating translation of cIAP1. Oncogene, 34(12):1532-41
84. **Holcik, M.** **2015**. Could the eIF2a-Independent translation be the Achilles heel of cancer? Front Oncol. 5:264. doi: 10.3389/fonc.2015.00264
85. Antoun, G., McBride, S., Vanstone, J.R., Naas, T., Michaud, J., Redpath, S., McMillan, H.J., Brophy, J., Daoud, H., Chakraborty, P., Dymont, D., Holcik, M., Harper, M.E., and M.A. Lines. **2016**. Detailed Biochemical and Bioenergetic Characterization of FBXL4-Related Encephalomyopathic Mitochondrial DNA Depletion. Journal of Inherited Metabolic Disorders Reports, 27:1-9, doi: 10.1007/8904_2015_491
86. Liwak-Muir, U., Dobson, C.C., Naing, T., Wylie, Q., Chehade, M., Chakraborty, P., and **M. Holcik**. **2016**. ERK8 is a novel HuR kinase that regulates PDCD4 levels through a miR21-dependent mechanism. Oncotarget, 7(2):1439-50, doi: 10.18632/oncotarget.6363.
87. Vanstone, J.R., Smith, A.M., McBride, S., Naas, T., **Holcik, M.**, Antoun, G., Harper, M.E., Michaud, J., Sell, E., Chakraborty, P., Tetreault, M., Care4Rare Consortium, Majewski, J., Baird, S., Boycott, K.M., Dymont, D.A., MacKenzie, A., and M.A. Lines. **2016**. DNMI1L-related mitochondrial fission defect presenting as refractory epilepsy. Eur J Hum Genet., 24(7):1084-1088, doi: 10.1038/ejhg.2015.243
88. Dobson, C.C., Langlois, S., Grynspan, D., Cowan, K.N., and **M. Holcik**. **2016**. Engaging cell death pathways for the treatment of rhabdomyosarcoma. Critical Reviews in Oncogenesis, 21(3-4):221-239.
89. Saxena, M., Busca, A., **Holcik, M.**, and A. Kumar. **2016**. Bacterial DNA protects monocytic cells against HIV-Vpr-induced mitochondrial membrane depolarization. Journal of Immunology, 196 (9):3754-67
90. Liwak-Muir, U., Mamady, H., Naas, T., Wylie, Q., McBride, S., Lines, M., Michaud, J., Baird, S.D., Chakraborty, P.K., and **M. Holcik**. **2016**. Impaired activity of CCA-adding enzyme TRNT1 impacts OXPHOS complexes and cellular respiration in SIFD patient-derived fibroblasts. Orphanet Journal of Rare Diseases, 11(1):79, doi: 10.1186/s13023-016-0466-3
91. Shaikho, S., Dobson, C.C., Naing, T., Samanfar, B., Moteshareie, H., Hajikarimloo, M., Golshani, A., and **M. Holcik**. **2016**. Elevated levels of ribosomal proteins eL36 and eL42 control expression of Hsp90 in rhabdomyosarcoma. Translation (Austin), 4(2):e1244395, doi.org/10.1080/21690731.2016.1244395

92. Dobson, C.C., Naing, T., Beug, S.T., Faye, M.D., Chabot, J., LaCasse, E.C., Stojdl, D.F., Korneluk, R.G, and **M. Holcik**. 2016. Oncolytic virus synergizes with Smac mimetic compounds to induce rhabdomyosarcoma cell death in a syngeneic murine model. *Oncotarget*, 8(2):3495-3508, doi: 10.18632/oncotarget.13849
93. Thakor, N., Smith, M.D., Roberts, L., Faye, M.D., Patel, H., Wieden, H.-J., Cate, J., and **M. Holcik**. 2017. Cellular mRNA recruits the ribosome via eIF3-PABP bridge to initiate internal translation. *RNA Biology*, 14(5):553-567, doi: 10.1080/15476286.2015.1137419
94. Samanfar B, Shostak K, Moteshareie H, Hajikarimlou M, Shaikho S, Omid K, Hooshyar M, Burnside D, Márquez IG, Kazmirchuk T, Naing T, Ludovico P, York-Lyon A, Szereszewski K, Leung C, Jin JY, Megarbane R, Smith ML, Babu M, **Holcik M**, Golshani A. 2017. The sensitivity of the yeast, *Saccharomyces cerevisiae*, to acetic acid is influenced by *DOM34* and *RPL36A*. *Peer J*, 14;5:e4037. doi: 10.7717/peerj.4037. eCollection 2017
95. Goldfield GS, Kenny GP, Prud'homme D, **Holcik M**, Alberga AS, Fahnestock M, Cameron JD, Doucette S, Hadjiyannakis S, Tulloch H, Tremblay MS, Walsh J, Guerin E, Gunnell KE, D'Angiulli A, Sigal RJ. 2018. Effects of aerobic training, resistance training, or both on brain-derived neurotrophic factor in adolescents with obesity: The hearty randomized controlled trial. *Physiol Behav*. 191:138-145. doi: 10.1016/j.physbeh.2018.04.026.
96. Moteshareie H, Hajikarimlou M, Mulet Indrayanti A, Burnside D, Paula Dias A, Lettl C, Ahmed D, Omid K, Kazmirchuk T, Puchacz N, Zare N, Takallou S, Naing T, Hernández RB, Willmore WG, Babu M, McKay B, Samanfar B, **Holcik M**, Golshani A. 2018. Heavy metal sensitivities of gene deletion strains for ITT1 and RPS1A connect their activities to the expression of URE2, a key gene involved in metal detoxification in yeast. *PLoS One*. 2018 Sep 19;13(9):e0198704. doi: 10.1371/journal.pone.0198704. eCollection 2018.
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98. Hassanzadeh G, Naing T, Graber T, Jafarnejad SM, Stojdl DF, Alain T, **Holcik M**. 2019. Characterizing Cellular Responses During Oncolytic Maraba Virus Infection. *Int J Mol Sci*. Jan 29;20(3). pii: E580. doi: 10.3390/ijms20030580
99. Péladeau C, Adam N, Bronicki LM, Coriati A, Thabet M, Al-Rewashdy H, Vanstone J, Mears A, Renaud JM, **Holcik M**, Jasmin BJ. 2020. Identification of therapeutics that target eEF1A2 and upregulate utrophin A translation in dystrophic muscles. *Nat Commun*. Apr 24;11(1):1990. doi: 10.1038/s41467-020-15971-w.
100. Slade, A., Kattini, R., Campbell, C. **Holcik. M.** 2020. Diseases Associated with Defects in tRNA CCA Addition. *Int J Mol Sci*. May 27;21(11):3780. doi: 10.3390/ijms21113780.
101. Hajikarimlou, M., Moteshareie, H., Omid K., Hooshyar, M., Shaikho, S., Kazmirchuk,

- T., Burnside, D., Takallou, S., Narges, Z., Jagadeesan, S.K., Puchacz, N., Babu, M., Smith, M., **Holcik, M.**, Samanfar, B., Golshani, A. **2020**. Sensitivity of yeast to lithium chloride connects the activity of YTA6 and YPR096C to translation of structured mRNAs. *PLoS One* Jul 8;15(7):e0235033. doi: 10.1371/journal.pone.0235033.
102. Hajikarimlou, M., Hunt, K., Kirby, G., Takallou, S., Jagadeesan, S.K., Omidi, K., Hooshyar, M., Burnside, D., Moteshareie, H., Babu, M., Smith, M., **Holcik, M.**, Samanfar, B., Golshani, A. **2020**. Lithium Chloride Sensitivity in Yeast and Regulation of Translation. *Int J Mol Sci.* Aug 10;21(16):E5730. doi: 10.3390/ijms21165730.
103. Loiselle, J., Fatica, T., Tzaneva, V., Vuong, N., **Holcik, M.**, Adamo, K.B. **2020**. Maternal physical activity significantly alters the placental transcriptome. *Placenta* Aug 23;100:111-121. doi: 10.1016/j.placenta.2020.08.016.
104. Goldfield GS, Cameron JD, Sigal RJ, Kenny GP, **Holcik M**, Prud'homme D, Guerin E, Alberga AS, D'Angiulli A, Tremblay MS, Mougharbel F, Walsh J. **2021**. Screen time is independently associated with serum brain-derived neurotrophic factor (BDNF) in youth with obesity. *Appl Physiol Nutr Metab.* Sep;46(9):1083-1090. doi: 10.1139/apnm-2020-0756. Epub 2021 Apr 8.
105. Bhattarai, K., Richard, T., Fatica, T., Frangione, B., Willmore, W.G., and **M. Holcik**. **2022**. ARK5 regulates subcellular localization of hnRNP A1 during hypertonic stress. *Journal of Biological Chemistry*, *in revision*.

Abstracts

62. Farooq, F., MacKenzie, D., Shamim, F., **Holcik, M.**, and A. MacKenzie. Induction of SMN protein by combination of STAT5 and p38 kinase activating, clinic ready compounds for the treatment of SMA. 17th World Muscle Congress, October 9-13, 2012, Perth, Australia
63. Liwak, U., Jordan, L. E., Roncaroli, F., and **M. Holcik**. Loss of PDCD4 in glioblastoma multiforme contributes to enhanced chemo-resistance through derepression of Bcl-xL expression. WCRG First Annual Conference, Windsor, Canada, November 16-17, 2012
64. Liwak, U., Jordan, L.E., Roncaroli, F., and **Holcik, M.** Pcd4 de-repression of bcl-xl IRES-mediated translation leads to enhanced chemo-resistance of glioblastoma multiforme tumors. AACR Annual Meeting 2013, April 6-10, Washington, DC, USA.
65. Faye, M.D., Graber, T., Langlois, S., Cowan, K., and **M. Holcik**. Identification of the Insulin-like Growth Factor 2 mRNA Binding Protein (IGF2BP1) as an important regulator of cIAP1 translation and apoptosis in Rhabdomyosarcomas. AACR Annual Meeting 2013, April 6-10, Washington, DC, USA.
66. Seckl, M.J., Roy, R., Mauri, F., Hue, L., Jordan, L.E., Skehel, M., Lin, G., **Holcik, M.**, and Pardo, O. FGF-2 induces chemoresistance in model and lung cancer cells through S6K2/hnRNPA1-mediated enhanced translation of anti-apoptotic proteins. 15th World Conference on Lung Cancer, October 27-31, 2013, Sydney, Australia

67. Faye, M.D., Graber, T., Beug, S., Xiang, X., Wild, B., Langlois, S., Cowan, K., Korneluk, K. and **M. Holcik**. Characterization of the cellular inhibitor of apoptosis 1 (cIAP1) IRES-transacting factors and their contribution to apoptotic resistance in rhabdomyosarcomas. AACR Annual Meeting 2014, April 5-9, San Diego, CA, USA.
68. Thakor, N., Smith, M.D., Roberts, L., Wieden, H.J., Cate, J.H.D., and **M. Holcik**. Cellular mRNA recruits the ribosome via eIF3-PABP bridge to initiate internal translation. 20th Annual Meeting of the RNA Society, May 26-31, 2015, Madison, Wisconsin, USA.
69. Dobson, C.C., Faye, M.D., Naing, T., Beug, S.T., Holbrook, J., LaCasse, E.C., Korneluk, R.G. and **M. Holcik**. Investigating the use of Smac mimetic compounds combined with innate immune stimuli to induce rhabdomyosarcoma cell death. 2015 Canadian Cancer Research Conference, November 8-10, 2015, Montreal, QC, Canada
70. Hassanzadeh, G., Graber, T., Lefebvre, C., Stojdl, D., Alain, T., and **M. Holcik**. Characterizing cellular responses during oncolytic Maraba virus infection. 2016 Annual RiboClub Meeting, September 19-21, 2016, Sherbrooke, QC, Canada
71. Richard, T., Naing, T., Courteau, L., Baird, S., and **M. Holcik**. ARK5 Regulates Subcellular Localization of hnRNP A1 During Hypertonic Stress. 2016 Annual RiboClub Meeting, September 19-21, 2016, Sherbrooke, QC, Canada
72. Denize, K.M., **Holcik, M.**, Harvey, A.L.J., Brett, K.E., Mohammad, S., Adamo KB. Comparing miRNA expression in placentas from active vs. inactive mothers: an exploratory study. Canadian National Perinatal Research Meeting, February 14-17, 2017, Montebello, QC, Canada.
73. Klein M, Shearer JE, Mohammad S, Ferraro ZM, Holcik M, Bainbridge S, Adamo KB. Second trimester serum metabolomic profiles can predict excessive gestational weight gain. *Journal of Developmental Origins of Health and Disease* 8(Suppl 1): S319, 2017.
74. Bhattarai, K., Richard, T., Fatica, T., and **M. Holcik**. Role of ARK5 kinase in regulation of hnRNP A1 protein during cellular stress. mRNA Turnover: Mechanism, Regulation and their Implication in Infectious and Age-Related Diseases. June 25-28, 2019, Montreal, QC, Canada.
75. Abdul-Fatah, A., Esmaeilisaraji, L., Juan, C., and **M. Holcik**. A Scoping Review of Mitochondrial Disease Registries Worldwide. MITO2021 – Transforming mitochondrial health, November 26, 2021, Ottawa, Canada
76. Ritz, S., Wells, S., Travers. R., **Holcik, M.**, Adams, M., Ravel, B., Winn, L., Sanchez, O., Nachtigal, M., Kurz, E., and Williams, D. Upstream Effects of Medical School Admission Policies on Medical Aspirants: Insights from the Coalition of Canadian Undergraduate Health Programs. Canadian Conference on Medical Education, April 23-26, 2022, Calgary, AB, Canada

Other

A. Invited Lectures

24. Genetics Research Rounds, CHEO, Ottawa (March 2012)

25. Ottawa Hospital Research Institute, Ottawa (April 2012)
26. Minho University, Braga, Portugal (April 2012)
27. Department of Nutrition, Case Western University, Cleveland, Ohio (November 2013)
28. Department of Biology, Carleton University, Ottawa, Canada (February 2014)
29. Centro de Investigaciones Biomedicas, Granada, Spain (April 2014)
30. Department of Biochemistry and Molecular Biology, UBC, Vancouver (July 2014)
31. Medical University of Vienna, Vienna, Austria (September 2014)
32. Department of Microbiology, Universidade Federal de Sao Paulo, Sao Paulo, Brazil (November 2014)
33. Oncology Rounds, Children's Hospital of Eastern Ontario, Ottawa, ON, Canada (March 2015)
34. University of Lethbridge, Lethbridge, AB, Canada (May 2015)
35. College of Science and Engineering, HBKU, Qatar (May 2016)
36. Genetics Research Rounds, CHEO, Ottawa (October 2017)
37. Massachusetts General Hospital, Boston, USA (December 2017)
38. Carleton University Science Café, Ottawa (January 2018)
39. Karmanos Cancer Centre, Detroit, USA (June 2019)

B. Invited Lectures – Meetings

10. Cell death in Cancer, Amsterdam (January 2012)
11. 4th Annual World Congress of Molecular Biology (session chair), Dalian, China (April 2014)
12. 98th Canadian Chemistry Conference, Ottawa, Canada (June 2015)
13. Brain-Child-Partners Conference 2017, Toronto, Canada, November 2017
14. MITO2021, Ottawa, Canada, November 2021

SIGNATURE: Martin Holcik

DATE: April 29, 2022

PERSONAL INFORMATION

Family name, First names: Oudhoff, Menno Johannes
Researcher identifier: www.orcid.org/0000-0002-1180-8975
Nationality: The Netherlands

CURRENT POSITION

2022 - now Associate Professor, Department of Health Sciences, Faculty of Science, Carleton University

PREVIOUS POSITION

2016 - 2022 Group Leader, Centre for Molecular Inflammation Research (CEMIR), Department of Clinical and Molecular Medicine, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
2020 Visiting Researcher, Laboratory of Parasite Immune Regulation (Dr. William Horsnell), University of Cape Town, South Africa (7 months)
2011-2016 Postdoctoral researcher, The Biomedical Research Centre, University of British Columbia (UBC), Vancouver, Canada. Colby Zaph (supervisor)

EDUCATION

2010 PhD degree (December 7th, 2010). Enno C.I. Veerman (supervisor)
Faculty of Dentistry, Department of Oral Biochemistry, VU University, Amsterdam, The Netherlands (NL)
Thesis Title: Discovery of the wound-healing capacity of salivary histatins.
2006 MSc degree, Faculty of Earth and Life Sciences, VU University, Amsterdam, NL.

CAREER DEVELOPMENT

2017-2021 Outstanding Fellow program (NTNU), 3 two-day retreats each year covering various aspects in professional development
2020 ERC workshop Sex and Gender dimension in Frontier research (1 day)
2017 EMBO Laboratory Leadership Course (4 days), Heidelberg, Germany
2016 PhD supervisor workshop (2 days), NTNU, Norway

CAREER BREAK

2019 4 months (parental leave)

FUNDING

Operating Grants (Principal Investigator)

2018-2023 Norwegian Research Council – FriPro (FriMedBio) ‘Young Researcher Talent’ grant, ‘Biological Methylation: Post-Translational Regulation of Intestinal Regeneration’ (8 million NOK)
2017 Norwegian Research Council (NFR) – FriPro – POS-ERC Short grant aiming to be

more competitive ERC proposal (390k NOK)

2017-2022 Norwegian Cancer Society ‘Open Call’ grant (principal investigator). ‘Methylation Turnover Tunes WNT-Driven Intestinal Tumorigenesis via the Hippo Transducer YAP’ (6.5 million NOK)

2016-2022 Start-up at CEMIR ‘Defining epithelial responses in inflammation and immunity’ (7 million NOK)

Operating Grants (Co-investigator):

2014-2018 CIHR Operating grant (Colby Zaph, PI). ‘Regulation of Intestinal homeostasis and cancer by the lysine methyltransferase Set7’ ~795k CAD

Other funding

2018-2021 Faculty of Medicine and Health Science NTNU, ‘incentive award funding’, 1 PhD student (3 yrs) based on ‘A’ score in ERC Starting grant scheme (~ 3 million NOK)

2019-2022 CEMIR internal competitive funding, 1 PhD student (3 yrs) (~ 3 million NOK)

2018-2020 Postdoc Mara Martin-Alonso, *EU Horizon 2020, Marie Skłodowska-Curie Actions – Individual Fellowship*, (~2.5 million NOK, including 15% incentive award from NTNU)

Individual Fellowships Long Term

2017-2021 Outstanding Academic Fellow program (NTNU), Trondheim, Norway (800k NOK)

2014-2016 Banting Postdoctoral Fellowship, Canadian Institutes of Health Research (CIHR), Vancouver, Canada (2014 - 2016). 140k CAD (salary award)

2013-2016 Michael Smith Foundation for Health Research Trainee Award, Vancouver, BC, Canada (2013 – 2015) (incentive award). 23k CAD (salary and R&T)

2012-2014 Canadian Institutes of Health Research (CIHR) Postdoctoral Fellowship, Zaph Lab, Vancouver, BC, Canada (2012 - 2014). 90k CAD (salary and R&T)

Individual Fellowships Short Term

2013 4 weeks, ‘Disease Models & Mechanisms’ Travelling Fellowship, Toshiro Sato Lab, Keio University, Tokyo, Japan.

2011 Van Coeverden Adriani Stichting travelling fellowship to Vancouver

2010 8 weeks, EMBO short-term Fellowship, Hidde Ploegh Lab, Whitehead Institute, Cambridge, MA, USA

2010 8 weeks, Journal of Cell Science Travelling Fellowship, Hidde Ploegh Lab, Whitehead Institute, Cambridge, MA, USA

2004 3 months, Max Planck Institute for Chemical Ecology, Jena, Germany

AWARDS

2015 Travel Award Till and McCulloch Meeting, Toronto, ON, Canada

2014 Travel Award Till and McCulloch Meeting, Ottawa, ON, Canada

- 2013 Young Investigator Travel Award, 16th International Congress of Mucosal Immunology, Vancouver, BC, Canada
- 2011 Best research publication award, Dutch Society for Oral Biology, The Netherlands
- 2008 IOT-Glaxo Smith Klein Best Presentation Award, Research days for Dutch Dentistry, The Netherlands
- 2006 Scholarship award, 1 week, PhD course ‘regeneration of epidermal-mesenchymal organs’ COST Action B23, Paris, France

GRANTED PATENT

Title: USE OF PEPTIDES FOR PROMOTING WOUND HEALING

Role: co-inventor and co-applicant

Pub. No.: WO/2009/087117

International Application No.: PCT/EP2009/000241, International Filing Date: 07.01.2009

This patent was based on my PhD work in which I isolated and discovered a peptide from human saliva that plays a role in re-epithelialization. Currently, there is a US-based company pursuing the commercialization for eye wound healing after surgery.

SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS

- 2019- Alberto Díez-Sánchez, Postdoc
- 2019- Pia Vornewald, PhD student
- 2016-2021 Mara Martín-Alonso, Postdoc (current: Group Leader at IKOM, NTNU)
- 2017-2021 Naveen Parmar, Postdoc (current: Postdoc in Frode Jahnsen Lab at Riskhospitalet Oslo)
- 2017-2021 Håvard Lindholm, PhD student, defense June 22nd, 2021 (current: Postdoc in Daniel DeCarvalho lab at the University of Toronto)
- 2016-2020 Rosalie Zwigelaar, PhD student, defense date April 29th 2021 (current: Coordinator Digital Life Norway)
- 2016-2020 Jenny Ostrop, Postdoc (current: Academic Librarian, University of Bergen, Norway)
- 2018-2019 2 MSc students (both graduated with an ‘A’ after external evaluation. Current positions: Technician, University of Oslo; Product Specialist, Roche Diagnostics Limited)
- 2011-2016 5 undergrad students at UBC

TEACHING DUTIES

- MOL3005 Immunology course (lectures and group discussions)
- MOL8009 PhD course on molecular inflammation (lecture).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 2020 International Cytokine & Interferon Society
- 2016 Norwegian Society for Immunology
- 2016 Norwegian Biochemical Society
- 2015 Canadian Society for Molecular Biosciences
- 2013 Society for Mucosal Immunology (SMI)
- 2012 Canadian Association of Gastroenterology

REVIEWER DUTIES

Peer Review: I have acted as a reviewer for the following journals: *Nature Chemical Biology*, *Mucosal Immunology*, *Parasites*, *eLife*, *Stem Cell Reports*, *Cellular and Molecular Immunology*, *FASEB Journal*, *Journal of Ophthalmology*, *Journal of Immunology Research*, and *Placenta*.

Funding: I have been reviewing grants for: *NWO (The Netherlands Organisation for Scientific Research)*, *MRC (Medical Research Council, UK)*.

Thesis: I have been internal examiner for MSc and PhD theses at NTNU, as well as external examiner for PhD thesis at the University of Cape Town.

PRESENTATIONS

Invited Speaker:

- April 2022, Invited speaker at University of Edinburgh, UK
- May 2021, Invited speaker at University of Helsinki, Finland
- May 2021, Invited speaker at IDIBELL, Barcelona, Spain
- May 2021, Invited speaker, Carleton, Ottawa, Canada
- April 2021, Invited speaker, INRS, Laval, Canada
- February 2020, Invited speaker at University of Cape Town, South Africa
- January 2020, Invited speaker at SFU, Vancouver, Canada
- June 2019, Invited speaker at the 2nd CMMI, Trondheim, Norway
- January 2019, Invited speaker at the BRIC, Copenhagen, Denmark
- November 2018, Invited speaker at the University of Glasgow, Scotland, UK
- May 2018, Invited Speaker at the Manchester Immunology Group, Manchester, UK
- October 2017, Popular Science Lecture, Norwegian Biochemical Society, Trondheim
- October 2015, Invited Speaker at the Structural Genomics Consortium, Toronto, Canada
- March 2015, 13th International Student Seminar, Kyoto University, Kyoto, Japan
- September 2010, 3rd Annual Symposium on Host Defence Peptides: Biology and applications of antimicrobial and related peptides, Utrecht, The Netherlands

Abstracts, selected short talks, posters:

- December 2019, Keystone Meeting ‘Helminths: New Insights from Immunity to Global Health’ Short Talk: AI-based organoid image analysis combined with cell compositional and transcriptome analysis to define type II epithelial responses.
- October 2019, NovoNordisk Meeting on Intestinal Organoids, Copenhagen, Denmark. Poster Title: LSD1 is a regulator of postnatal intestinal epithelial development.
- June 2018, FASEB ‘Biological Methylation’ meeting, Florence, Italy (Poster) Title: Discovery of LSD1 as a Crucial Regulator of Intestinal Stem Cells and Paneth cells
- November 2017, Annual meeting of the Norwegian Society of Immunology (NSI), Oslo Norway (Short Talk) Title: Setd7 Controls Developmental Pathways During Bacterial and Helminth Infection

- June 2016, Conference on Molecular Mechanisms of Inflammation, Trondheim, Norway (Short Talk) Title: Intestinal Epithelial Cell-Intrinsic Deletion of Setd7 Identifies Crucial Roles for Development Pathways in Immunity against Parasitic Infections
- October 2015, Till and McCulloch Meeting, Toronto, Canada (Short Talk) Title: 'SETD7 controls Wnt-dependent activation of reserve stem cells during intestinal regeneration through methylation of YAP'
- June 2015, Gordon Research Seminar and Conference, (Short Talk and Poster), Title: 'Non-Histone Methylation Links Hippo and Wnt Pathways in Intestinal Regeneration and Tumorigenesis'
- October 2014, Till and McCulloch Meeting, Ottawa, Canada (Poster) Title: 'Setd7 links the Hippo/Yap and Wnt/beta-catenin pathways in intestinal regeneration and tumourigenesis'
- June 2014, ISSCR meeting, Vancouver, Canada (Poster) Title: 'Set7 at the intersection between Hippo and Wnt in the intestine'
- February 2014, Keystone Symposia Stem Cells and Cancer, Banff, Canada (Short Talk and Poster) Title: 'Set7 at the intersection between Hippo and Wnt in the intestine'
- July 2013, '16th International Congress of Mucosal Immunology', Vancouver, BC, Canada (Short Talk) Title: 'Intestinal Epithelial Cell-Intrinsic Expression of Set7 Controls Intestinal Homeostasis and Immunity Through the Hippo Pathway'
- February 2013, Research Topics in GI, CDDW 2013, Victoria, Canada (Short Talk and Poster) Title: Lysine methyltransferase Set7 controls gut and liver homeostasis via the Hippo-Yap pathway
- April 2012, CSHL 'Molecular Pathways in Organ Development and Disease', Cold Spring Harbor, NY, USA (Short Talk and Poster) Title: 'Lysine methyltransferase Set7 controls liver and gut homeostasis through methylation of the Hippo pathway member Yap'
- September 2010, 7th European Mucosal Immunology Group Meeting, Amsterdam, The Netherlands (Poster) Title: 'Structure-activity analysis of histatin, a potent wound healing peptide from human saliva'
- July 2009, The Beatson International Cancer Conference on Microenvironment, Motility and Metastasis, Glasgow, United Kingdom (Poster) Title: 'Structure-activity analysis of histatin, a potent wound healing peptide from human saliva'
- August 2008, Gordon Conference, Growth factors and Signaling, Oxford, United Kingdom (Poster) Title: 'Identification and Characterization of a Novel Growth Factor in Human Saliva'
- July 2008, Cell Adhesion and Migration, UK, German and Dutch Symposium, Nijmegen, The Netherlands (Short Talk and Poster) Title: 'Identification and Characterization of a Novel Growth Factor in Human Saliva'
- May 2008, 8th European Symposium on Saliva, Egmond, The Netherlands (Short Talk) Title: 'Identification and Characterization of a Novel Growth Factor in Human Saliva'

PUBLICATIONS

Preprints / in revision:

-
1. Iqbal S, Andersson S, Nestaitė E, Penttinen N, Kumar A, Borghagovski D, Webb A, Saarinen T, Juuti A, Ori A, Varjosalo M, Pietiläinen K, Jensen KB, **Oudhoff MJ**, Katajisto P. Fetal-like

reversion in the regenerating intestine is regulated by mesenchymal Asporin. 2021 biorxiv
doi.org/10.1101/2021.06.24.449590 in Cell Stem Cell

Perspectives / Commentaries (invited, not peer reviewed)

1. Vornewald PM, **Oudhoff MJ**. Helminths get MIFfed by the tuft cell – ILC2 circuit. 2022 Immunology and Cell Biology May; 100(5):301-303
2. Horsnell WGC, **Oudhoff MJ**. Helminths are positively AMPing up gut de-bugging. 2022 Cell Host & Microbe 2022 Jan 12;30(1):1-2

Peer reviewed publications (new to old):

1. Lindholm HT, Parmar N, Drurey C, Campillo Poveda M, Vornewald PM, Ostrop J, Díez-Sánchez A, Maizels RM, **Oudhoff MJ**. BMP signaling in the intestinal epithelium drives a critical feedback loop to restrain IL-13-driven tuft cell hyperplasia. 2022 Science Immunology in press
2. Drurey C, Lindholm HT, Coakley G, Loeser S, Doolan R, Gerbe F, Jay P, Harris N, **Oudhoff MJ**, Maizels RM. Intestinal tuft cell induction by type 2 cytokines is negated by a helminth parasite and its secreted products. 2022 Journal of Experimental Medicine Jan 3;219(1):e20211140
3. Martín-Alonso M, Iqbal S, Vornewald PM, Lindholm HT, Damen MJ, Martínez F, Hoel S, Díez-Sánchez A, Altelaar M, Katajisto P, Arroyo AG, **Oudhoff MJ**. Smooth muscle-specific MMP17 (MT4-MMP) regulates the intestinal stem cell niche and regeneration after damage. 2021 Nature Communications Nov 18; 12(1):6741
4. Chetty A, Darby M, Vornewald PM, Martín-Alonso M, Filz A, Ritter M, McSorley H, Masson L, Smith K, Brombacher F, O’Shea M, Cunningham A, Ryffel B, **Oudhoff MJ**, Dewals B, Layland L, Horsnell W. Il4ra-independent vaginal eosinophil accumulation following helminth infection exacerbates epithelial ulcerative pathology following HSV-2 infection. 2021 Cell Host & Microbe Apr 14;29(4):579-593.e.5.
5. Parmar N, Burrows K, Vornewald PM, Lindholm HT, Zwiggelaar RT, Díez-Sánchez A, Martín-Alonso M, Fossli M, Vallance B, Arne Dahl J, Zaph C, **Oudhoff MJ**. Intestinal-epithelial LSD1 controls goblet cell maturation and effector responses required for gut immunity to bacterial and helminth infection. 2021 PLoS Pathogens Mar 31;13(3):e1009476 2020
6. Roberts LB, Schnoeller C, Berkachy R, Darby M, Pillaye J, **Oudhoff MJ**, Parmar N, Mackowiak C, Sedda D, Quesniaux V, Ryffel B, Vaux R, Gounaris K, Berrard S, Withers DR, Horsnell WG, Selkirk ME. Acetylcholine production by type 2 innate lymphoid cells promotes mucosal immunity to helminth parasites. Science Immunology 2021 Mar 5;6(57):eabd0359 (*Our image was selected for the cover*)
7. Ostrop J, Zwiggelaar R, Terndrup Pedersen M, Gerbe F, Bosl K, Lindholm H, Díez-Sánchez A, Parmar N, Radetzki S, von Kries J, Jay P, Jensen K, Arrowsmith C, **Oudhoff MJ**. A semi-automated screening method demonstrates epigenetic control of intestinal epithelial differentiation. Frontiers in Cell and Developmental Biology 2021 Jan 21;8:618552.
8. Zwiggelaar RT*, Lindholm HT*, Fossli M, Terndrup Pedersen M, Ohta Y, Díez-Sánchez A, Martín-Alonso M, Ostrop J, Matano M, Parmar N, Kvaløy E, Spanjers RR, Nazmi K, Rye M, Drabløs F, Arrowsmith C, Arne Dahl J, Jensen KB, Sato T, and **Oudhoff MJ**. LSD1 represses a neonatal/reparative gene program in adult intestinal epithelium. Science Advances 2020 11;6(37) *co-first
9. Judson RN, Quarta M*, **Oudhoff MJ***, Soliman H, Chang CK, Yi L, Lou G, Hamer M, Blonigan J, He WJ, Su L, Zhang RH, Xu P, Cait A, Vander Werff R, Eisner C, Lewis CA, Low M, Barta I, Karimi MM, Zaph C, Rando TA, and Rossi FM. Inhibition of methyltransferase Setd7 allows the

- in vitro expansion of myogenic stem cells with improved therapeutic potential. *Cell Stem Cell*. 2018 22 (2) 177-190 *equal contribution
10. Gómez-Escudero J, Moreno V, Martín-Alonso M, Hernández-Riquer V, Feinberg T, Colmenar Á, Calvo E, Camafeita E, Martínez F, **Oudhoff MJ**, Weiss SJ, Arroyo AG. E-Cadherin cleavage by MT2-MMP regulates apical junctional signaling and epithelial homeostasis in the intestine. *J. Cell Science*. 2017 130 (23), 4013-4027 (Our image was selected for the cover)
 11. **Oudhoff MJ**[†], Antignano F*, Chenery AL, Braam MJ, Zaph C[†]. Intestinal epithelial cell-intrinsic deletion of *Setd7* identifies crucial roles for developmental pathways in immunity against parasitic and bacterial infections. *PLoS Pathogens* 2016 Sep 6; 12(9): e1005876. *equal contribution [†]co-corresponding
 12. Antignano F, Braam MJS, Hughes MR, Chenery A, Burrows K, Gold MJ, **Oudhoff MJ**, Rattray D, Halim T, Cait AM, Takei F, Rossi FMV, McNagny KM, Zaph C. G9a regulates group 2 innate lymphoid cell development by repressing the group 3 innate lymphoid cell program. *J. Exp. Med*. 2016 213 (7): 1153-62
 13. **Oudhoff MJ**[†], Braam MJS, Freeman SA, Wong D, Rattray DG, Wang J, Antignano F, Snyder K, Refaeli I, Hughes MR, McNagny KM, Gold MR, Arrowsmith CH, Sato T, Rossi FMV, Tatlock JH, Owen DR, Brown PJ, Zaph C[†]. SETD7 controls intestinal regeneration and tumorigenesis by regulating Wnt/b-Catenin and Hippo/YAP signaling. *Developmental Cell* 2016 37 (1): 47–57. [†]co-corresponding
 14. Barsyte-Lovejoy D*, Li F*, **Oudhoff MJ***, Tatlock JH*, Dong A, Zeng H, Wu H, Freeman SA, Schapira M, Senisterra GA, Kuznetsova E, Marcellus R, Allali-Hassani A, Kennedy S, Lambert J-P, Couzens AL, Aman A, Gingras A-C, Al-Awar R, Fish PV, Gerstenberger BS, Roberts L, Benn CL, Grimley RL, Braam MJS, Rossi FMV, Sudol M, Brown PJ, Bunnage ME, Owen DR, Zaph C, Vedadi M, Arrowsmith CH. (R)-PFI-2 is a potent and selective inhibitor of SETD7 methyltransferase activity in cells. *PNAS* 2014 111 (35): 12853–12858. *equal contribution
 15. Antignano F, Burrows K, Hughes ML, Han JM, Kron KJ, Penrod NM, **Oudhoff MJ**, Wang SKH, Min PH, Gold MJ, Chenery A, Braam MJS, Fung TC, Rossi FMV, McNagny KM, Arrowsmith CH, Lupien M, Levings MK, Zaph C. Methyltransferase G9A regulates T cell differentiation during murine intestinal inflammation. *J. Clin. Invest.* 2014 124 (5):1945–1955.
 16. Mullaly SC, **Oudhoff MJ**, Min PH, Burrows K, Antignano F, Rattray DG, Chenery A, McNagny KM, Ziltener HJ, Zaph C. Requirement for Core 2 O-Glycans for Optimal Resistance to Helminth Infection. *PLoS ONE* 2013 8 (3): e60124. doi: 10.1371/journal.pone.0060124.
 17. **Oudhoff MJ**, Freeman SA, Couzens AL, Antignano F, Min PH, Northrop JP, Burrows K, Chenery A, Lehnertz B, Barsyte-Lovejoy D, Vedadi M, Arrowsmith CH, Nishina H, Gold MR, Rossi FMV, Gingras A-C, Zaph C. Regulation of the Hippo pathway through Set7-dependent methylation of Yap. *Developmental Cell* 2013 26 (2): 188–194.
 18. Bron JL, Mulder HW, Vonk LA, Doulabi DZ, **Oudhoff MJ**, Smit TH. Migration of intervertebral disc cells into dense collagen scaffolds intended for functional replacement. *J. Mat. Sci.: Mat. in Med.* 2012 23(3): 813-21
 19. Bolscher JG*, **Oudhoff MJ***, Nazmi K, Antos JM, Guimareas CP, Spooner E, Haney EF, Garcia Vallejo JJ, Vogel HJ, van 't Hof W, Ploegh HL, Veerman EC. Sortase A as a tool for high-yield histatin cyclization. *FASEB J.* 2011 25(8): 2650-8 *equal contribution
 20. **Oudhoff MJ**, Blaauboer ME, Nazmi K, Scheres N, Bolscher JG, Veerman EC. The role of salivary histatin and the human Cathelicidin LL-37 in wound healing and innate immunity. *Biol. Chem.* 2010 391(5): 541-48

21. **Oudhoff MJ**, Kroeze KL, Nazmi K, van den Keijbus PA, van 't Hof W, Fernandez-Borja M, Hordijk PL, Gibbs S, Bolscher JG, Veerman EC. Structure-activity analysis of histatin, a potent wound healing peptide from human saliva: cyclization of histatin potentiates molar activity 1,000-fold. *FASEB J.* 2009 23(11):3928-35.
22. **Oudhoff MJ**, van den Keijbus PA, Kroeze KL, Nazmi K, Gibbs S, Bolscher JG, Veerman EC. Histatins enhance wound closure with oral and non-oral cells. *J. Dent. Res.* 2009 88(9):846-50.
23. **Oudhoff MJ**, Bolscher JG, Nazmi K, Kalay H, van 't Hof W, Amerongen AV, Veerman EC. Histatins are the major wound-closure stimulating factors in human saliva as identified in a cell culture assay. *FASEB J.* 2008 22(11):3805-12.
24. de Jong MA*, de Witte L*, **Oudhoff MJ**, Gringhuis SI, Gallay P, Geijtenbeek TB. TNF-alpha and TLR agonists increase susceptibility to HIV-1 transmission by human Langerhans cells ex vivo. *J. Clin. Invest.* 2008 118(10):3440-52. *equal contribution

Book chapter

1. van 't Hof W, **Oudhoff MJ**, Veerman ECI (2013) Chapter 9: Histatins: multifunctional salivary antimicrobial peptides (Springer Basel AG). Antimicrobial peptides and innate immunity (Edited by Drs. P.S. Hiemstra and S.A. Zaat)

Joerg Overhage, PhD

Curriculum Vitae

Contact Information

Associate Professor, Undergraduate Academic Advisor
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Employment history

- Sept 2017 – present **Associate Professor**, Department of Health Sciences, Carleton University, Canada
- 2010 – 2017 **Junior Research Group Leader**, Institute of Functional Interfaces, Karlsruhe Institute of Technology (KIT), Germany[†]
- 2009 – 2010 **Postdoctoral Fellow**, Department of Molecular Bacteriology, Hemholtz Center for Infection Research, Germany
- 2008 **Postdoctoral Fellow**, Aicuris Anti-infective Cures GmbH, Germany
- 2005 – 2008 **Postdoctoral Fellow**, Department of Microbiology and Immunology, University of British Columbia, Canada
- 2004 **Postdoctoral Fellow**, Institute of Molecular Biosciences, Massey University, New Zealand
- 2003 – 2004 **Postdoctoral Fellow**, Institute of Molecular Microbiology & Biotechnology, University of Münster, Germany

[†]Parental Leaves: Dec – Feb 2014; June 2016 – May 2017 (total 13 months)

Education

- 1998 – 2003 **Doctor of Natural Sciences (Equiv PhD)**, Institute of Molecular Microbiology and Biotechnology, University of Münster, Germany
Summa cum laude (highest distinction)
- 1992 – 1998 **Diplom (Equiv Master of Sciences) in Biology**, Institute of Molecular Microbiology and Biotechnology, University of Münster, Germany

Awards and Recognitions

- 2019 Service Excellence Award, Carleton University
- 2018 Service Excellence Award, Carleton University
- 2016 Alexander von Humboldt Foundation Alumni Fellowship (\$9,000)
- 2014 KIT Associate Fellow Award, Faculty of Chemistry and Biosciences, KIT
- 2006 - 2008 Postdoctoral Fellowship, Cystic Fibrosis Canada (\$100,000)
- 2005 - 2007 Feodor-Lynen Fellowship, Alexander von Humboldt Foundation (\$75,000)

Research Funding

- 2022 BAMO-Bruyere Innovation Fund (as co-Applicant together with Drs Marek, DeZeeuw and Cassol).
External Research Funding
Title: “Why won't my wound heal? Targeting immune-microbe interactions to improve outcomes in patients with pressure injuries.”
Total funds awarded: \$107,000
- 2021 NSERC – Research Tools and Instruments (RTI) (as co-Applicant together with Drs Holcik, Cassol, Connor, Hildebrand, Sun, Haley)
External Research Funding
Title: “Acquisition of an ultracentrifuge.”
Total funds awarded: \$150,000
- 2021 BAMO-Bruyere Incentive Funding (as co-Applicant together with BHSc Versey and Drs Marek, DeZeeuw, Cassol).
External Research Funding
Title: “Targeting Macrophage-Microbiome Interactions to Improve Wound Healing. A Pilot Study.”
Total funds awarded: \$18,250
- 2020 Health/NSE Research Development Grant.
Internal Research Funding
Title: “Antimicrobial resistance in polymicrobial biofilm infections.”
Total funds awarded: \$10,000
- 2020 NSERC - RTI (as co-Applicant together with Drs Holcik, Cassol, Connor, Haley, MacKay)
External Research Funding
Title: “Acquisition of an automated live cell imaging platform.”
Total funds awarded: \$150,000
- 2020 CU COVID-19 Rapid Response Research Grant (as co-Applicant together with Dr. Cassol).
Internal Research Funding

- Title: “SARS-CoV-2-host interactions: Implications for secondary bacterial co-infections”
Total funds awarded: \$12,000
- 2020 International Research Seed Grant (as co-Applicant together with Dr. Cassol),
Internal Research Funding.
Title: “Understanding how host-pathogen interactions contribute to chronic wound formation”
Total funds awarded: \$10,000
- 2019 Health Research Development Grant (as co-Applicant together with Dr. Cassol),
Internal Research Funding.
Title: Understanding how interactions between microbial communities and tissue macrophages contribute to delayed wound healing.
Total funds awarded: \$10,000
- 2019 NSERC Discovery Grant (as Principal Investigator), *External Research Funding.*
Title: Molecular determinants of bacterial stress responses to reactive chlorine species.
External Research Funding.
Total funds awarded: \$180,000
- 2018 Health Research Development Grant (as co-Applicant together with Dr. Wong and Dr. Biggar)
Internal Research Funding.
Title: Development of antimicrobial and anti-biofilm peptides as novel therapeutics.
Total funds awarded: \$10,000
- 2017 Carleton University Start-up Funds (as Principal Investigator)
Internal Research Funding.
Total funds awarded: \$150,000
- 2017 German Federal Ministry of Education and Research (BMBF) (as co-Applicant together with Dr. Breitling (KIT) and Dr. Ulrich (KIT))
External Research Funding.
Title: Antibiotics
Total funds awarded: \$1,750,000 (I declined my part of the grant due to my move from KIT to Carleton University)
- 2017 Alexander von Humboldt Foundation (as Principal Investigator)
External Research Funding.
Title: *In vivo* and *in vitro* evaluation of antibiotic-loaded micro-particles for the treatment of chronic, biofilm-related infections
Total funds awarded: \$15,000
- 2015 Young Investigator Research Award (as a co-Applicant with Dr. Löffler, KIT),
Internal Research Funding.
Title: Micro-structured Peptide arrays for high-throughput antibiotic and biofilm inhibitor screening.

- Total funds awarded: \$7,500
- 2015 POF-Helmholtz Association of German Research Centers (as a co-Applicant with 65 PIs, Helmholtz Association)
External Research Funding.
Title: BioInterfaces in Technology and Medicine.
Total funds awarded: \$25,000,000
- 2014 German Federal Ministry of Education and Research (BMBF) (as co-Applicant together with Drs. Obst, Brenner-Weiß, Schwartz (KIT))
External Research Funding.
Title: Molecular Interaction Engineering
Total funds awarded: \$300,000
- 2013 Young Investigator Research Award (as a co-Applicant with Dr. Lee-Thedieck, KIT),
Internal Research Funding.
Title: Cells on Surfaces
Total funds awarded: \$7,500
- 2012 Portfolio-Program - Helmholtz Association of German Research Centers (as a co-Applicant with 25 PIs, Helmholtz Association)
External Research Funding.
Title: Technology & Medicine.
Total funds awarded: \$2,250,000
- 2010 KIT Start-up Funds (as Principal Investigator)
Internal Research Funding.
Total: \$50,000
- 2010 German Research Foundation (DFG) – Karlsruhe Institute of Technology (as Principal Investigator)
External Research Funding.
Title: Bacterial Stress Response
Total funds awarded: \$1,250,000

Peer-reviewed Publications

(Summary: *h*-index = 32, Total Citations = 4320 (Google Scholar, May 2022))

54. da Cruz Nizer WS, Inkovskiy V, Versey Z, Stempel N, Cassol E, **Overhage J**. 2021. Oxidative Stress Response in *Pseudomonas aeruginosa*. *Pathogens* 10:9, 1187.

53. Ridyard KE and **J Overhage**. 2021. The Potential of Human Peptide LL-37 as an Antimicrobial and Anti-biofilm Agent. *Antibiotics (Basel)*. 29;10:650.

52. Versey Z, da Cruz Nizer WS, Russell E, Zigic S, DeZeeuw K, Marek JE, **Overhage J**, Cassol E. 2021. Biofilm-Innate Immune Interface: Contribution to Chronic Wound Formation. *Frontiers in Immunology* 12:648554.

51. Lei W, Demir K, **Overhage J**, Grunze M, Schwartz T, Levkin PA. 2020. Droplet-Microarray: miniaturized platform for high throughput screening of antimicrobial compounds. *Advanced Biosystems* 4:202000073.
50. da Cruz Nizer WS, Inkosvkiy V, **Overhage J**. 2020. Surviving Reactive Chlorine Stress: Responses of Gram-Negative Bacteria to Hypochlorous Acid. *Microorganisms* 8: 1220.
49. Lima WG, Moreira de Brito JC, **Overhage J**, da Cruz Nizer WS. 2020 The potential of drug repositioning as a short-term strategy for the control and treatment of COVID-19 (SARS-CoV-2): A systematic review. *Archives of Virology* 165:1729–1737.
48. Raic A, S Riedel, E Kemmling, K Bieback, **J Overhage**, C Lee-Thedieck. 2018. Biomimetic 3D in vitro model of biofilm triggered osteomyelitis for investigating the hematopoiesis during infection. *Acta Biomaterialia* 73:250-262.
47. Gellatly SL, M Bains, EBM Breidenstein, J Strehmel, F Reffuveille, PK Taylor, ATY Yeung, **J Overhage**, REW Hancock. 2018. Novel roles for two-component regulatory systems in cytotoxicity and virulence-related properties in *Pseudomonas aeruginosa*. *AIMS Microbiology* 4: 173-191.
46. Stempel N, M. Nusser, A. Neidig, G. Brenner-Weiss, **J. Overhage**. 2017. The Oxidative Stress Agent Hypochlorite Stimulates c-di-GMP Synthesis and Biofilm Formation in *Pseudomonas aeruginosa*. *Frontiers in Microbiology* 8:2311.
45. Hohmann S., A. Neidig, B. Kühl, F. Kirschhöfer, **J. Overhage**, G. Brenner-Weiß. 2017. A new data processing routine facilitating the identification of surface adhered proteins from bacterial conditioning films via QCM-D/MALDI-ToF/MS. *Analytical and Bioanalytical Chemistry* 409:5965–5974.
44. Clamens, T, T. Rosay, A. Crépin, T. Grandjean, T. Kentache, J. Hardouin, P. Bortolotti, A. Neidig, M. Mooij, M. Hillion, J. Vieillard, P. Cosette, **J. Overhage**, Fergal O’Gara, E. Bouffartigues, A. Dufour, S. Chevalier, B. Guery, P. Cornelis, M.G. Feuilloley, O. Lesouhaitier. 2017. The aliphatic amidase AmiE is involved in regulation of *Pseudomonas aeruginosa* virulence. *Scientific Reports* 7:41178.
43. Tettmann, B., C. Niewerth, F. Kirschhöfer, A. Neidig, A. Dötsch, G. Brenner-Weiss, S. Fetzner, **J. Overhage**. 2016. Enzyme-mediated quenching of the *Pseudomonas* quinolone signal (PQS) promotes biofilm formation of *P. aeruginosa*. *Frontiers in Microbiology* 7:1978.
42. Krämer, A., J. Herzer, **J. Overhage**, F.J. Meyer-Almes. 2016. Substrate Specificity and Function of Members of Acetylpolyamine Amidohydrolases from *P. aeruginosa*. *BMC Biochemistry*. 17:4.
41. Stempel, N., J. Strehmel, **J. Overhage**. 2015. Potential application of antimicrobial peptides in the treatment of bacterial biofilm infections. *Current Pharmaceutical Design* 21:67-84.
40. Berditsch, M., T. Jäger, N. Stempel, T. Schwartz, **J. Overhage**, A.S. Ulrich. 2015. Synergistic Effect of Membrane Active Peptides Polymyxin B and Gramicidin S on Multidrug Resistant

Strains and Biofilms of *Pseudomonas aeruginosa*. Antimicrobial Agents and Chemotherapy 59:5288-96.

39. Strehmel, J., A. Neidig, M. Nusser, R. Geffers, G. Brenner-Weiss, **J. Overhage**. 2015. The sensor kinase PA4398 modulates swarming motility and biofilm in *Pseudomonas aeruginosa* PA14. Applied and Environmental Microbiology 81:1274-85.38.
38. Bouffartigues, E., J.A. Moscoso, R. Duchesne, T. Rosay, L. Fito-Boncompie, G. Gicquel, O. Maillot, M. Bénard, A. Bazire, G. Brenner-Weiss, O. Lesouhaitier, P. Lerouge, A. Dufour, N. Orange, M.G. Feuilloley, **J. Overhage**, A. Filloux, S. Chevalier. 2015. The absence of the *Pseudomonas aeruginosa* OprF protein leads to increased biofilm formation through variation in c-di-GMP. Frontiers in Microbiology 23(6):630.
37. Yeung, A.T., L. Janot, O.M. Pena, A. Neidig, I. Kukavica-Ibrulj, A. Hilchie, R.C. Levesque, **J. Overhage***, R.E. Hancock*. 2014. Requirement of the *Pseudomonas aeruginosa* CbrA sensor kinase for full virulence in a murine acute lung infection model. Infection and Immunity 82:1256-67. (*joint senior authors)
36. Tsotsalas, M., J. Liu, B. Tettmann, S. Grosjean, A. Shahnas, Z. Wang, C. Azucena, M. Addicoat, T. Heine, J. Lahann, **J. Overhage**, S. Bräse, H. Gliemann, C. Wöll. 2014. Fabrication of highly uniform gel-coatings by conversion of surface-anchored metal organic framework. Journal of the American Chemical Society 136:8-11.
35. Hänsch, G.M., B. Prior, G. Brenner-Weiss, U. Obst, **J. Overhage**. 2014. The *Pseudomonas* quinolone signal (PQS) stimulates chemotaxis of polymorphonuclear neutrophils. Journal of Applied Biomaterials & Functional Materials 12:21-6.
34. Tettmann, B., A. Dötsch, O. Armant, C.D. Fjell, **J. Overhage**. Knock-out of extracytoplasmic function sigma factor ECF-10 affects stress resistance and biofilm formation in *Pseudomonas putida* KT2440. Applied and Environmental Microbiology 80:4911-9.
33. Schönwälder S.M., F. Bally, L. Heinke, C. Azucena, Ö.D. B., S. Heißler, F. Kirschhöfer, T.P. Gebauer, A.T. Neffe, A. Lendlein, G. Brenner-Weiß, J. Lahann, A. Welle, **J. Overhage**, C. Wöll. 2014. Adsorption of human plasma proteins on thin gelatin-based hydrogel films: a QCM-D study. Biomacromolecules 15:2398-406.
32. Stempel N, A. Neidig, M. Nusser, R. Geffers, J. Vieillard, O. Lesouhaitier, G. Brenner-Weiss, **J. Overhage**. 2013. Human host defense peptide LL-37 stimulates virulence factor production and adaptive resistance in *Pseudomonas aeruginosa*. PLoS One 8:e82240
31. Neidig A, A.T. Yeung, T. Rosay, B. Tettmann, N. Stempel, M. Rueger, O. Lesouhaitier, **J. Overhage**. 2013. TypA is involved in virulence, antimicrobial resistance and biofilm formation in *Pseudomonas aeruginosa*. BMC Microbiology 13:77.
30. Kahle, N.A., G. Brenner-Weiss, **J. Overhage**, U. Obst, G.M. Hänsch. 2013. Bacterial quorum sensing molecule induces chemotaxis of human neutrophils via induction of p38 and leukocyte specific protein 1 (LSP1). Immunobiology 218:145-51.
29. Breen E.C, J.L. Malloy, K. Tang, F- Xia, Z. Fu, R.E. Hancock, **J. Overhage**, P.D. Wagner, R.G. Spragg. 2013. Impaired pulmonary defense against *Pseudomonas aeruginosa* in VEGF gene inactivated mouse lung. Journal of Cellular Physiology 228:371-9.

28. Zaoui, C., **J. Overhage**, D. Löns, A. Zimmermann, M. Müsken, P. Bielecki, C. Pustelny, T. Becker, M. Nimtz, S. Häussler. 2012. An orphan sensor kinase controls quinolone signal production via MexT in *Pseudomonas aeruginosa*. *Molecular Microbiology* 83:536-47.
27. Breidenstein E.B., L. Janot, J. Strehmel, L. Fernandez, P.K. Taylor, I. Kukavica-Ibrulj, S.L. Gellatly, R.C. Levesque, **J. Overhage**, R.E. Hancock. 2012. The Lon protease is essential for full virulence in *Pseudomonas aeruginosa*. *PLoS One* 7:e49123.
26. Adamek M, **J. Overhage**, S. Bathe, J. Winter, R. Fischer, T. Schwartz. 2011. Genotyping of environmental and clinical *Stenotrophomonas maltophilia* isolates and their pathogenic potential. *PLoS One* 6:e27615.
25. Yeung A.T., E.C.W. Torfs, F. Jamshidi, M. Bains, I. Wiegand, R.E.W. Hancock, **J. Overhage**. 2009. Swarming of *Pseudomonas aeruginosa* is controlled by a complex regulatory network. *Journal of Bacteriology* 191:5592-602.
24. Breidenstein, E.B., B.K. Khaira, I. Wiegand, **J. Overhage**, R.E.W. Hancock. 2008. Complex ciprofloxacin resistome revealed by screening a *Pseudomonas aeruginosa* mutant library for altered susceptibility. *Antimicrobial Agents and Chemotherapy* 52:4486-91.
23. **Overhage, J.**, A. Campisano, M. Bains, E.C. Torfs, B.H.A. Rehm, R.E.W. Hancock. 2008. Human host defence peptide LL-37 prevents bacterial biofilm formation. *Infection and Immunity* 76:4176-82. (Recommended by the Faculty of 1000 Medicine)
22. Blohmke C.J., A.F. Hirschfeld, I. Elias, R.E. Victor, D.G. Hancock, A.G.F. Davidson, P.G. Wilcox, K.D. Smith, **J. Overhage**, R.E.W. Hancock, S.E. Turvey. 2008. Innate immunity mediated by TLR5 as a novel anti-inflammatory target for cystic fibrosis lung disease. *Journal of Immunology* 180:7764-73.
21. **Overhage, J.**, M. Bains, M.D. Brazas, R.E.W. Hancock. 2008. Swarming of *Pseudomonas aeruginosa* PAO1 is a complex adaptation leading to increased production of virulence factors and antibiotic resistance, *Journal of Bacteriology* 190:2671-9.
20. Leung B.O., A.P. Hitchcock, J.L. Brash, A. Scholl, A. Doran, P. Henklein, **J. Overhage**, K. Hilpert, J.D. Hale, R.E.W. Hancock. 2008. An X-ray spectromicroscopy study of competitive adsorption of protein and peptide onto polystyrene-poly(methyl methacrylate). *Biointerphases* 3:FB2 7. doi: 10.1116/1.2956637
19. Campisano A., **J. Overhage**, B.H.A. Rehm. 2008. The polyhydroxyalkanoate biosynthesis genes are differentially regulated in planktonic- and biofilm-grown *Pseudomonas aeruginosa*. *Journal of Biotechnology* 133:442-52.
18. Brazas M.D., E. Breidenstein, **J. Overhage**, R.E.W. Hancock. 2007. Role of Lon protease, an ATP-dependent protease homolog, in resistance of *Pseudomonas aeruginosa* to ciprofloxacin. *Antimicrobial Agents and Chemotherapy* 51:4276-83. (Faculty of 1000 Medicine)
17. Stewart-Ornstein J., A.P. Hitchcock, D. Hernández-Cruz, P. Henklein, **J. Overhage**, K. Hilpert, J.D. Hale, R.E.W. Hancock. 2007. Using intrinsic X-ray absorption spectral differences to identify and map peptides and proteins. *J. of Physical Chemistry B* 111:7691-9.
16. Parschat K., **J. Overhage**, A. Strittmatter, A. Henne, G. Gottschalk, S. Fetzner. 2007. Complete nucleotide sequence of the 113 kb linear catabolic plasmid pAL1 of *Arthrobacter nitroguajacolicus* R61a, and transcriptional analysis of genes involved in quinaldine degradation. *Journal of Bacteriology* 189:3855-67.

15. **Overhage, J.**, S. Lewenza, A.K. Marr, and R.E. Hancock. 2007. Identification of Genes Involved in Swarming Motility Using a *Pseudomonas aeruginosa* PAO1 Mini-Tn5-lux Mutant Library. *Journal of Bacteriology* 189:2164-9.
14. Marr A.K., **J. Overhage**, M. Bains, R.E. Hancock. 2007. The Lon protease of *Pseudomonas aeruginosa* is induced by aminoglycosides and is involved in biofilm formation and motility. *Microbiology* 153:474-82.
13. **Overhage, J.**, A. Steinbüchel, H. Priefert. 2006. Harnessing eugenol as a substrate for production of aromatic compounds with recombinant strains of *Amycolatopsis* sp. HR167. *Journal of Biotechnology* 125:369-76.
12. Campisano A., C. Schroeder, M. Schemionek, **J. Overhage**, B.H. Rehm. 2006 PslD is a secreted protein required for biofilm formation by *Pseudomonas aeruginosa*. *Applied and Environmental Microbiology* 72:43066-8.
11. Plaggenborg R., **J. Overhage**, A. Loos, J.A.C. Archer, P. Lessard, A.J. Sinskey, A. Steinbüchel, H. Priefert. 2006. Potential of *Rhodococcus* strains for biotechnological vanillin production from ferulic acid and eugenol. *Applied Microbiology and Biotechnology* 72:745-55.
10. **Overhage, J.**, M. Schemionek, J.S. Webb, BH Rehm. 2005. Expression of the *psl* operon in *Pseudomonas aeruginosa* PAO1 biofilms: PslA performs an essential function in biofilm formation. *Applied and Environmental Microbiology* 71:4407-13.
9. **Overhage, J.**, S. Sielker, S. Homburg, K. Parschat, S. Fetzner. 2005. Identification of large linear plasmids in *Arthrobacter* spp. encoding the degradation of quinaldine to anthranilate. *Microbiology* 151:491-500.
8. **Overhage, J.**, H. Priefert, A. Steinbüchel. 2003. Highly efficient biotransformation of eugenol to ferulic acid and further to vanillin with recombinant strains of *Escherichia coli*. *Applied and Environmental Microbiology* 69:6569-76.
7. Plaggenborg R., **J. Overhage**, H. Priefert, A. Steinbüchel. 2003. Functional analyses of genes involved in the metabolism of ferulic acid in *Pseudomonas putida* KT2440. *Applied Microbiology and Biotechnology* 61:528-35.
6. **Overhage, J.**, H. Priefert, A. Steinbüchel. 2002. Biotransformation of eugenol to ferulic acid by a recombinant strain of *Ralstonia eutropha* H16. *Applied and Environmental Microbiology*.68:4315-4321.
5. Brandt K., S. Thewes, **J. Overhage**, H. Priefert, A. Steinbüchel. 2001. Characterization of the eugenol hydroxylase genes (*ehyA/ehyB*) from the new eugenol degrading isolate *Pseudomonas* sp. Strain OPS1. *Applied Microbiology and Biotechnology* 56:724-730.
4. Priefert H., **J. Overhage**, A. Steinbüchel. 1999. Identification and molecular characterization of the eugenol hydroxylase genes (*ehyA/ehyB*) of *Pseudomonas* sp. Strain HR199. *Archives of Microbiology* 172:364-376.
3. **Overhage, J.**, H. Priefert, A. Steinbüchel. 1999. Biochemical and genetic analyses of the ferulic acid catabolism in *Pseudomonas* sp. Strain HR199. *Applied and Environmental Microbiology* 65:4837-4847.
2. **Overhage, J.**, H. Priefert, J. Rabenhorst, A. Steinbüchel. 1999. Biotransformation of eugenol to vanillin by a mutant of *Pseudomonas* sp. Strain HR199 constructed by disruption of the vanillin dehydrogenase gene. *Applied Microbiology and Biotechnology* 52:820-828.

1. **Overhage, J.**, A. U. Kresse, H. Priefert, H. Sommer, G. Krammer, J. Rabenhorst, A. Steinbüchel. 1999. Molecular characterization of the genes *pcaG* and *pcaH*, encoding protocatechuate 3,4-dioxygenase, which are essential for vanillin catabolism in *Pseudomonas* sp. Strain HR199. Applied and Environmental Microbiology 65:951-96.

Patents

3. Schoenwaelder, S, Walles H, Dandekar, Overhage, J, Lahann, J. 2018. “Multisphärische Partikel zur Therapie von Lungenerkrankungen” (The present invention relates generally to microparticles for the treatment of chronic lung infections). German Patent Publication Number DE102016114615.3.

2. Hancock, R.E.W., C. De La Fuente Nunez, J. Kindrachuk, H. Jenssen, J. Overhage, E. Haney. 2014. “Small Cationic Anti-Biofilm and IDR Peptides“ (The present invention relates generally to peptides and more specifically to anti-biofilm and immunomodulatory peptides.). Publication Number WO2015038339 A1.

1. Rabenhorst J., A. Steinbüchel, H. Priefert, **J. Overhage**. 2000. “Construction of production strains for producing substituted phenols by specifically inactivating genes of the eugenol and ferulic acid catabolism” (The invention relates to a transformed and/or mutagenated unicellular or multicellular organism which is characterized in that enzymes of the eugenol and/or ferulic acid catabolism are deactivated in such a manner that the intermediates coniferyl alcohol, coniferyl aldehyde, ferulic acid, vanillin and/or vanillic acid are accumulated). Publication Number WO2000026355 A3.

Teaching Activities

Carleton University

Undergraduate courses:

Winter 2022	HLTH 4301	Pandemics & Infectious Disease
	HLTH 4910	Honours Individual Research Thesis
Fall 2021	HLTH 3903	Emerging Issues in Health Sciences
	HLTH 4910	Honours Individual Research Thesis
Winter 2021	HLTH 4301	Pandemics & Infectious Disease
	HLTH 4910	Honours Individual Research Thesis
Fall 2020	HLTH 2004	Microbiology & Virology
	HLTH 3903	Emerging Issues in Health Sciences
	HLTH 4910	Honours Individual Research Thesis

Summer 2020	HLTH 4901	Directed Studies in Health
Winter 2020	HLTH 2004	Microbiology & Virology
	HLTH 4301	Pandemics & Infectious Disease
	HLTH 4901	Directed Studies in Health
	HLTH 4910	Honours Individual Research Thesis
Fall 2019	HLTH 3904	Emerging Issues in Health Throughout the Lifespan
	HLTH 4901	Directed Studies in Health
	HLTH 4910	Honours Individual Research Thesis
Summer 2019	HLTH 4901	Directed Studies in Health
Winter 2019	HLTH 2004	Microbiology & Virology
	HLTH 4301	Pandemics & Infectious Disease
	HLTH 4910	Honours Individual Research Thesis
Fall 2018	HLTH 3904	Emerging Issues in Health Throughout the Lifespan
	HLTH 4910	Honours Individual Research Thesis
Winter 2018	HLTH 2004	Microbiology & Virology

Graduate courses:

Fall 2019	BIOL 5501	Directed Studies in Biology
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Karlsruhe Institute of Technology, GermanyUndergraduate courses:

Winter 2015	BA-03	Microbiology, Molecular Biology (Lab, Co-Instructor)
	BA-07	Directed Studies in Microbial Interactions
Winter 2014	BA-03	Microbiology, Molecular Biology (Lab, Co-Instructor)
	BA-07	Directed Studies in Microbial Interactions

Winter 2013	BA-03	Microbiology, Molecular Biology (Lab, Co-Instructor)
Winter 2012	BA-03	Microbiology, Molecular Biology (Lab, Co-Instructor)
	BA-07	Directed Studies in Bacterial Stress Responses
Winter 2011	BA-03	Microbiology, Molecular Biology (Lab, Co-Instructor)
	BA-07	Directed Studies in Bacterial Stress Responses

Graduate courses:

Summer 2015	4208	Bacteria in Biofilms
	4308	Directed Studies on Bacteria in Biofilms
Summer 2014	4208	Bacteria in Biofilms
	4308	Directed Studies on Bacteria in Biofilms
Summer 2013	4208	Bacteria in Biofilms
	4308	Directed Studies on Bacteria in Biofilms
Winter 2012	4208	Bacteria in Biofilms
	4308	Directed Studies on Bacteria in Biofilms
Winter 2011	4208	Bacteria in Biofilms
	4308	Directed Studies on Bacteria in Biofilms

Highly Qualified Personnel (HQP) Training**Undergraduate Student supervision (n=25)****Directed Studies and Internships (n=13)**

2020/5-2020/8	Sandra Zigic, BHSc, Carleton University Project: Microbial Diversity in Chronic Wound Infections
2020/9-2021/4	Kylen Ridyard, I-cureus, Carleton University Project: Antimicrobial and Anti-biofilm potential of human peptide LL-37
2020/1-2020/4	Meghan Passmore, Directed Study, Carleton University Project: Characterization of key genes involved in the bacterial stress response and defense against reactive chlorine species (RCS)

- 2019/9-2020/4 Vasily Inkovskiy, I-Cureus, Carleton University
Project: Characterization of key genes involved in the bacterial stress response and defense against reactive chlorine species (RCS)
- 2019/9-2019/12 Taylor Anderson, Directed Study, Carleton University
Project: Isolation and Characterization of antimicrobial resistant isolates of *Pseudomonas aeruginosa* and *Stenotrophomonas maltophilia*
- 2019/5-2019/8 Kylen Ridyard, DSRI, Carleton University
Co-Supervisor Project: Understanding Host-Pathogen Interactions: Characterizing innate immune responses to *P. aeruginosa*
- 2019/6-2019/8 Kate Dervin, I-Cureus, Carleton University
Project: Isolation and Characterization of antimicrobial resistant isolates of *Pseudomonas aeruginosa* and *Stenotrophomonas maltophilia*
- 2019/6-2019/8 Nasif Choudhury, Directed Study, Carleton University
Project: Adapation of *P. aeruginosa* to reactive chlorine species
- 2018/5-2019/4 Mariam Elsayy, HSRI & I-Cureus, Carleton University
Project: The Effects of LL-37 on *E. coli* Growth and Biofilm Formation and The Synergy Between LL-37 and Antibiotics
- 2015/5-2015/8 Sigfried Hohmann, KIT
Project: Adhesin proetins in *Pseudomonas aeruginosa*
- 2015/6-2015/8 Mariana Capretz, Ontario/Baden-Wuerrtemberg Fellowship, Western University
Project: Microparticile/bacteria interactions
- 2015/5-2015/6 Thomas Jaeger, KIT
Project: Biofilm formation in *Pseudomonas aeruginosa*
- 2013/2-2013/4 Julia Ehmann, Directed Study, KIT
Project: Two-component regulator NtrC in *Pseudomonas aeruginosa*
- Bachelor's Honours (n=12)**
- 2021/9-2022/4 Kylen Ridyard, I-cureus, Carleton University
Project: Antimicrobial and Anti-biofilm potential of human peptide LL-37
- 2020/9-2021/5 Sandra Zigic, BHSc, Carleton University
Project: Microbial Diversity and Antimicrobial Resistance in Chronic Wound Infections
- 2020/9-2021/5 Vasily Inkovskiy, BHSc, Carleton University
Project: *Pseudomonas aeruginosa*: oxidative stress and resistance to hypochlorous acid

- 2019/9-2020/4 Nasif Choudhury, BHSc - Carleton University
Thesis/Project: Viable-but-not-culturable in *Pseudomonas aeruginosa*
- 2019/9-2020/4 Sarah Bickley-Gardner, BHSc - Carleton University
Thesis/Project: *In vitro* model of chronic wound infections: Polymicrobial Interactions
- 2018/9-2019/4 Darien Klein, BHSc - Carleton University
Thesis/Project: Synergistic effect and anti-biofilm activity of antimicrobial peptides Carleton University
- 2015/6-2015/8 Siegfried Hohmann, BSc - KIT
(Co-Supervisor) Thesis/Project: Surface adhered proteins from bacterial conditioning films
- 2015/2-2015/7 Jaana Westmeier, BSc - KIT
Thesis/Project: Analysis of the interaction of *Pseudomonas aeruginosa* and *Stenotrophomonas maltophilia* in a biofilm model
- 2015/2-2015/8 Jaqueline Mann, BSc - KIT
Thesis/Project: Role of the two-component regulatory system PmrA/PmrB in *Pseudomonas aeruginosa*
- 2013/6-2014/1 Julia Ehmann, B.Eng. - KIT
Co-Supervisor Thesis/Project: Molecular characterization of two-component regulator NtrC in *Pseudomonas aeruginosa*
- 2013/5-2013/8 Nicolai Ruegen, B.Eng - Ecole Superieure de biotechnologie Strasbourg
Thesis/Project: Bacterial stress response to oxidative stress
- 2012/4-2012/8 Linda Guedemann, BSc - KIT
Thesis/Project: Role of alternative sigma factor PA1351 in stress response of *Pseudomonas aeruginosa*
- 2012/4-2012/7 Martina Rueger, BSc - KIT
Thesis/Project: Role of the putative GTPase BipA/TypA in the stress response of *Pseudomonas aeruginosa*

Graduate Student Supervision (n=14):

Directed Studies (n=1)

- 2019/9-2019/12 Destina Matrasingh-Williams, Directed Study, Carleton University
Project: Synergistic effect of human peptide LL-37 and antibiotics on clinical isolates of *Escherichia coli*

Master's Thesis (n=11)

- 2020/9-ongoing Fahad Kabir, MSc – Carleton University
Thesis/Project: Chronic Wound Microbiome

- 2020/9-ongoing Zoya Versey, MSc – Carleton University (Co-supervisor)
Thesis/Project: Exploring interactions between macrophages and bacterial biofilms: Implications for cellular metabolism and wound healing
- 2015/5-2016/1 Benjamin Voss, MSc - KIT
Thesis/Project: Interaction of *Pseudomonas aeruginosa* biofilm with human antimicrobial peptides
- 2015/5-2016/1 Felix Ritzmann, MSc - KIT
Thesis/Project: The role of OhrR in HClO-induced biofilm formation in *Pseudomonas aeruginosa*
- 2015/5-2016/1 Marie Eckstein, MSc - KIT
Thesis/Project: Molecular characterization of hypochlorite induced biofilm formation in *Pseudomonas aeruginosa*
- 2014/10-2015/5 Linda Guedemann, MSc - KIT
Thesis/Project: Regulation and localization of the diguanylate cyclase PA3177 in *Pseudomonas aeruginosa*
- 2014/7-2015/2 Martina Rueger, MSc - KIT
Thesis/Project: Molecular Interaction of *Pseudomonas aeruginosa* in multi-species biofilm models
- 2014/6-2015/1 Frauke Laemmer, MSc - KIT
Thesis/Project: Biofilm development under control of inducible molecular switches
- 2013/5-2014/2 Jasmin Vowinkel, MSc - KIT
Thesis/Project: Molecular characterization of the VBNC state in *Pseudomonas aeruginosa*
- 2012/11-2013/6 Nadine Waeber, MSc - KIT
Thesis/Project: Impact of cyclic di-nucleotide signaling in Gram-negative bacteria
- 2011/9-2012/6 Jonas Huebner, MSc - University of Wuerzburg
Co-Supervisor Thesis/Project: Stress response of *Pseudomonas aeruginosa* biofilms towards antibiotics
- Doctorate (n=5)**
- 2020/1-ongoing Waleska Da Cruz Nizer, PhD
Thesis/Project: Adaptation of *Pseudomonas aeruginosa* to reactive chlorine species
- 2012/2-2017/2 Sina Schoenwaelder, PhD - University of Wuerzburg
Co-Supervisor Thesis/Project: Development and characterization of gelatine-based hydrogels and PLGA-based janus particles

- 2011/2-2015/4 Janine Strehmel, PhD - KIT
Thesis/Project: Regulation of virulence-associated processes by the two-component sensor kinase PA4398 in *Pseudomonas aeruginosa* PA14
- 2010/11-2014/11 Nikola Stempel, PhD - KIT
Thesis/Project: Response of *Pseudomonas aeruginosa* to components of the innate immune system
- 2010/11-2014/10 Beatrix Tettmann, PhD - KIT
Thesis/Project: Gene regulation and biofilm formation in *Pseudomonas* – studies on sigma factors and quorum quenching

Post-Graduate Supervision

Post-doctorate (n=2)

- 2015/7-2016/2 Janine Strehmel, KIT
Thesis/Project: Anti-biofilm properties of the human antimicrobial peptide LL-37
- 2014/12-2015/3 Nikola Stempel, KIT
Thesis/Project: Adaptaion of *Pseudomonas aeruginosa* to oxidative stress



Dr. Paul Peters, PhD
Associate Professor, Graduate Advisor
Spatial Determinants of Health Lab
Department of Health Sciences
Carleton University



SPATIAL DETERMINANTS
OF HEALTH LAB

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		twitter:	@unitepangaea
		web:	carleton.ca/determinants/

EDUCATION

2003–09 Doctor of Philosophy (PhD)
The University of Texas at Austin, Department of Sociology
Spatial segregation in complex urban systems: housing and public policy in Santiago, Chile
Advisors: Dr. Peter Ward, Dr. Bryan Roberts

2000–02 Master of Environmental Studies (MES)
University of Waterloo, School of Planning
Assessing Education Quality in Peru: the role of information in education planning

1996–99 Bachelor of Environmental Studies (BES, Honours)
University of Waterloo, School of Planning

RELEVANT EXPERIENCE

2017– Associate Professor, Graduate Advisor
Department of Health Sciences
Department of Geography and Environmental Studies (cross-appointment)
Carleton University

2016–17 Associate Professor, Tier II Canada Research Chair
Department of Sociology, Department of Economics
University of New Brunswick, Fredericton

2016–17 Associate Director of Research
New Brunswick Institute for Research, Data and Training
University of New Brunswick, Fredericton

2014–16 Assistant Professor, Tier II Canada Research Chair
Department of Sociology, Department of Economics
University of New Brunswick, Fredericton

2008–14 Research Analyst
Health Analysis Division
Statistics Canada

AWARDS AND FELLOWSHIPS

- 2019–24 Early Researcher Award, Government of Ontario
\$341,000, Provincially Competitive Award
Title: High Resource Health Users in Rural Ontario: a mixed-method approach
- 2014–19 Tier II Canada Research Chair, CIHR-funded (resigned in 2017)
\$500,000, Nationally Competitive Research Chair
Title: Spatial and Social Inequalities of Health and Health Service Delivery
Additional support from New Brunswick Health Research Foundation (NBHRF),
Maritime Strategy for Patient Oriented-Research Support Unit (MSSU), UNB
- 2006–08 Andrew W. Mellon Fellowship in Latin American Sociology
\$50,000+ (US), International award for exceptional PhD candidates
- 2005 Andrew W. Mellon Field Research Award (2005)
\$15,000 (US), competitive award for field research in Latin America
- 2004–07 Social Sciences and Humanities Research Council Doctoral Fellowship
\$60,000, Competitive Canadian fellowship program

University of Texas Graduate Scholarship
\$80,000 (US), Graduate tuition and salary award
- 2003 CIDA-CBIE Innovative Research Award for Canadians
\$10,000, Competitive national research award
- 2002 CIDA Student Research Award
\$10,000, Competitive national research award
- 2001 Ontario Graduate Scholarship
\$10,000, Competitive award

KNOWLEDGE OUTPUT AND EXCHANGE

Notation: †Principal Investigator, *Student/Post-Doc under my supervision

Peer-Reviewed Publications

1. Petrie S*, Carson D, **Peters PA**, Hurtig A-K, LeBlanc M*, Simpson H*, Barnabe J*, Young M*, Ostafichuk M*, Hodge H, Glademan J, Smale M, & M Gonzalez Garcia. (2021) "What a Pandemic Has Taught Us About the Potential for Innovation in Rural Health: Commencing an Ethnography in Canada, the United States, Sweden, and Australia." *Frontiers in Public Health*. 9: 768624. <https://doi.org/10.3389/fpubh.2021.768624>.
2. Petrie S* & **PA Peters**†. (2020) "Untangling complexity as a health determinant: Wicked problems in healthcare." *Health Science Inquiry*. 11(1):131-135. <https://doi.org/10.29173/hsi299>
3. LeBlanc M*, Petrie S, Paskaran S, Carson DB, & **PA Peters**†. (2020) "Patient and Provider Perspectives of Rural eHealth Interventions." *Rural and Remote Health*. 20(3): 5754. <https://doi.org/10.22605/rrh5754>
4. **Peters PA**, MT Hidalgo*, & E Skop. (2020) "Building a Just City: A Retrospective of Social Segregation in Metropolitan Lima." *Journal of Latin American Geography*. 19(4): 269-279. <https://doi.org/10.1353/lag.2020.0088>
5. Asher K* & **PA Peters**. (2020) "Meat reduction, vegetarianism, or chicken avoidance: U.S. omnivores' impressions of three meat-restricted diets." *British Food Journal*. 123(1): 387-402. <https://doi.org/10.1108/BFJ-04-2020-0307>
6. Asher K* & **PA Peters**. (2020) "Go the Whole Nine Yards? How Extent of Meat Restriction Impacts Individual Dietary Experience." *Ecology of Food and Nutrition*. 59(4): 436-458. <https://doi.org/10.1080/03670244.2020.1737043>
7. Johnson M, Brook J, Brook R, Oiamo T, Luginaah I, **Peters PA**, & JD Spence. (2020) "Traffic-Related Air Pollution and Carotid Plaque Burden in a Canadian City with Low-Level Ambient Pollution." *Journal of the American Heart Association*. 9(e013400). <https://doi.org/10.1161/JAHA.119.013400>
8. Harris MA, MacLeod J, Kim J, Pahwa M, Tjepkema M, **Peters PA**, & PA Demers. (2020) "Use of a Canadian Population-Based Surveillance Cohort to Test Relationships Between Shift Work and Breast, Ovarian, and Prostate Cancer." *Annals of Work Exposures and Health*. 64(4): 387-401. <https://doi.org/10.1093/annweh/wxaa017>
9. Petrie S*, Carson DB, & **PA Peters**†. (2019) "Antifragile by design: Using Antifragility as a Guiding Principle in Future Rural eHealth Implementation and Evaluation." *Health Science Inquiry*. 10(1): 49-50. <https://doi.org/10.29173/hsi21>
10. **Peters PA**. (2019) "Broadening the narrative on rural health: from disadvantage to resilience." Invited commentary in the *University of Toronto Medical Journal*. 96(2): 41-43. <http://utmj.org/index.php/UTMJ/article/view/1179>
11. Slaunwhite A*, Ronis S, Miller D†, & **PA Peters**†. (2019) "Seasonal variations in psychiatric admissions to hospital." *Canadian Psychiatry*. 60(3): 155-164. <http://dx.doi.org/10.1037/cap0000156>
12. **Peters PA**†, Carson D, Carson D, Porter R, Ensign P, & A Vuin. (2018) "My village is dying? Integrating methods from the inside-out." *Canadian Review of Sociology*. 55(3): 451-475. <http://dx.doi.org/10.1111/cars.12212>
13. Burnett RT, Chen H, Szyszkowicz M, ... **Peters PA**, ... et al. (2018) "Global Mortality and Long-Term Ambient Exposure to Fine Particulate Matter: A New Relative Risk Estimator." *Proceedings of the National Academy of Sciences USA*. 115(38): 9592-9597. <https://doi.org/10.1073/pnas.1803222115>

14. Harris A, Kirkham T, MacLeod J, Tjepkema M, **Peters PA**, & PA Demers. (2018) "Surveillance of cancer risks for firefighters, police and armed forces among men in a Canadian census cohort." *American Journal of Industrial Medicine*. 16(10): 815-823. <http://dx.doi.org/10.1002/ajim.22891>
15. Sritharan J, MacLeod J, Harris S, Cole DC, Harris A, Tjepkema M, **Peters PA**, & PA Demers. (2018) "Prostate cancer surveillance by occupation and industry: the Canadian Census Health and Environment Cohort (CanCHEC)." *Cancer Medicine*. 7(4): 1468-1478. <https://doi.org/10.1002/cam4.1358>
16. **Peters PA**. (2017) "Population health and population change: a spatio-temporal analysis of New Brunswick communities." *Journal of New Brunswick Studies*. 8(2): 87-109. <https://journals.lib.unb.ca/index.php/JNBS/article/view/25881/30044>
17. Crouse DL, Pinault L, Balram A, Hystad P, **Peters PA**, Chen H, van Donkelaar A, Martin RV, Menard R, Robichaud A, & P Villeneuve. (2017) "Urban greenness is associated with reduced risks of mortality in Canada's largest cities: Results from a national cohort study." *Lancet: Planetary Health*. 1(7): e289-e297. [https://doi.org/10.1016/S2542-5196\(17\)30118-3](https://doi.org/10.1016/S2542-5196(17)30118-3)
18. Slaunwhite AK*, McEachern J, Ronis S, & **PA Peters**†. (2017) "Alcohol Distribution Reforms and School Proximity to Liquor Sales Outlets in New Brunswick." *Canadian Journal of Public Health*. 108(5-6): 488-496. <https://dx.doi.org/10.17269/CJPH.108.6132>
19. Slaunwhite AK*, Ronis S, Sun Y†, & **PA Peters**†. (2017) "The Emotional Health and Wellbeing of Canadians that Care for Persons with Mental Health or Addictions Problems." *Health and Social Care in the Community*. 25(3): 840-847. <http://dx.doi.org/10.1111/hsc.12366>
20. Hadkhale K, MacLeod J, Demers PA, Martinsen JI, Kjaeheim K, Lyng E, Sparen P, Tryggvadottir L, Harris A, Tjepkema M, **Peters PA**, & E Pukkala. (2017) "Occupation and risk of bladder cancer: a population level comparison of Nordic countries and Canada." *BMJ Open*. 7(8): e016538. <https://dx.doi.org/10.1136%2Fbmjopen-2017-016538>
21. Pahwa M, Harris MA, Tjepkema M, **Peters PA**, & PA Demers. (2017) "Sedentary Work and Risk of Colon and Rectal Cancer by Anatomical Sub-Site in the Canadian Census Health and Environmental Cohort (CanCHEC)." *Cancer Epidemiology*. 49(Aug.): 144-151. <https://doi.org/10.1016/j.canep.2017.06.004>
22. MacLeod JS, Harris MA, Tjepkema M, **Peters PA**, & PA Demers. (2017) "Cancer risks among welders and occasional welders in a national population-based cohort study: Canadian Census Health and Environmental Cohort." *Safety and Health at Work*. 8(3): 258-266. <https://dx.doi.org/10.1016%2Fj.shaw.2016.12.001>
23. Kachuri L, Harris MA, Tjepkema M, **Peters PA**, & PA Demers. (2017) "Cancer risks in a population-based sample of 70,000 agricultural workers: results from the Canadian Census Health and Environmental Cohort (CanCHEC)." *BMC Cancer*. 17(1): 343. <https://doi.org/10.1186/s12885-017-3346-x>
24. Oliver LN, Penney C, & **PA Peters**. (2016) "The influence of community well-being on mortality among Registered First Nations people." *Health Reports*. 27(7): 10-18. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2016007/article/14646-eng.htm>
25. Stieb DM, Chen L, Hystad P, Beckerman BS, Jerrett M, Tjepkema M, Crouse D, Omariba W, **Peters PA**, van Donkelaar A, Martin RV, Burnett RT, Liu S, & RM Dugandzic. (2016) "A national study of the association between traffic-related air pollution and adverse pregnancy outcomes in Canada, 1999-2008." *Environmental Research*. 148: 513-526. <https://doi.org/10.1016/j.envres.2016.04.025>
26. Navaneelan T, Alam S, **Peters PA**, & O Phillips. (2016) "Deaths involving sepsis in Canada." *Health at a Glance*. Statistics Canada Catalogue No. 82-624-X. 2(1): 1-5. <https://www150.statcan.gc.ca/n1/pub/82-624-x/2016001/article/14308-eng.htm>

27. de Lima Amaral EF, Potter J, **Peters PA**, Skop E, & W. Fusco. (2016) "Chain Migration and Residential Segregation in the Mesoregion of São Paulo." *Anais. Mar* 31:1-27.
28. Crouse DL, Philip S, van Donkelaar A, Martin R, Jessiman B, **Peters PA**, Weichenthal S, Brook J, Hubbell B, & RT Burnett. (2016) "A New Method to Jointly Estimate the Mortality Risk of Long-Term Exposure to Ambient Fine Particulate Matter and its Components." *Scientific Reports*. 6(18916).
<https://doi.org/10.1038/srep18916>
29. Crouse DL, **Peters PA**, Hystad P, Brook JR, van Donkelaar A, Martin RV, Villeneuve PJ, Jerrett M, Goldberg M, Pope III CA, Brauer M, Brook RD, Robichaud A, Menard R, Labrecque A, & Burnett RT. (2015) "Associations between ambient PM_{2.5}, NO₂, and O₃: three ambient air pollutants and mortality in the Canadian Census Health and Environment Cohort (CanCHEC) over a 16 year follow-up." *Environmental Health Perspectives*. 123(11): 1180-1186. <https://doi.org/10.1289/ehp.1409276>
30. Crouse DL, **Peters PA**, Villeneuve PJ, Proux M-O, Shin HH, Goldberg MS, Johnson M, Wheeler AJ, Allen RW, Atari DO, Jerrett M, Brauer M, Brook JR, Cakmak S, & RT Burnett. (2015) "Within-and between-city contrasts in nitrogen dioxide and mortality in 10 Canadian cities; a subset of the Canadian Census Health and Environment Cohort (CanCHEC)." *Journal of Exposure Science and Environmental Epidemiology*. 25(5): 482-489. <https://doi.org/10.1038/jes.2014.89>
31. Shariff F, **Peters PA**, Arbour L, Greenwood M, Skarsgard E, & ME Brindle. (2015) "Maternal and community predictors of gastroschisis and congenital diaphragmatic hernia in Canada." *Paediatric Surgery International*. 31(11): 1055-1060. <https://doi.org/10.1007/s00383-015-3797-6>
32. Byrnes J, King N, Hawe P, **Peters PA**, Pickett W, & C Davison. (2015) "Patterns of youth injury: A comparison across the northern territories and other parts of Canada." *International Journal of Circumpolar Health*. 74(27864): <https://doi.org/10.3402/ijch.v74.27864>
33. Mitra D, Shaw A, Tjepkema M, & **Peters PA**. (2015). "The social determinants of lung cancer incidence in Canada: results from a 13-year prospective study." *Health Reports*. 26(6): 12-20.
<https://www150.statcan.gc.ca/n1/pub/82-003-x/2015006/article/14195-eng.htm>
34. Crouse DL, **Peters PA**, Villeneuve PJ, Proux MO, Shin H, Goldberg MS, Johnson M, Wheeler A, Allen RW, Atari DO, Jerrett M, Brauer M, Brook JR, & Burnett RT. (2015) "Long-term exposure to traffic-derived NO₂ is associated with risk of cardiovascular mortality in 10 Canadian cities: a cohort study." *Journal of Exposure Science and Environmental Epidemiology*. 25(5): 482-489.
<https://doi.org/10.1289/ehp.1409276>
35. Stieb DM, Chen L, Beckerman BS, Jerrett M, Crouse DL, Omariba DWR, **Peters PA**, van Donkelaar A, Martin RV, Burnett RT, Gilbert NL, Tjepkema M, Liu S, & RM Dugandzic. (2015) "Association of pregnancy outcomes and PM_{2.5} in a national Canadian study." *Environmental Health Perspectives*. 124(2): 243-249. <https://dx.doi.org/10.1289%2Fehp.1408995>
36. Jones M, Harris MA, **Peters PA**, Tjepkema M, & Demers PA. (2014) "Prostate cancer and occupational exposure to whole-body vibration in a national population-based cohort study." *American Journal of Industrial Medicine*. 57(8): 896-905s. <https://doi.org/10.1002/ajim.22354>
37. Shin HH, Cakmak S, Brion O, Villeneuve PJ, Turner M, Goldberg MS, Jerrett M, Chen M, Crouse DL, **Peters PA**, Pope CA III, & Burnett RT. (2014) "Indirect Adjustment Method for Multiple Missing Variables Applicable to Environmental Epidemiology." *Environmental Research*. 134(Oct.): 482-487.
<https://doi.org/10.1016/j.envres.2014.05.016>
38. Park J & **Peters PA**. (2014) "Mortality from diabetes mellitus, 2004 to 2008: A multiple-cause-of-death analysis." *Health Reports*. 25(3): 12-18. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2014003/article/11909-eng.htm>

39. **Peters PA.** (2013) "Inequalities in life expectancy between residents of Inuit Nunangat and of the rest of Canada, an age- and cause- decomposition from 1989-2008." *Health Reports.* 24(12): 3-9. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2013012/article/11890-eng.htm>
40. **Peters PA,** Tjepkema M, Fines P, Wilkins R, Crouse DL, Chan PC, & Burnett RT. (2013) "Data Resource Profile: 1991 Canadian Census cohort." *International Journal of Epidemiology.* 42(5): 1319-1326. <https://doi.org/10.1093/ije/dyt147>
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Book Chapters

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2. **Peters PA**, Taylor,A, Carson D, & Brokensha H. (2016) "Sources of data for settlement level analyses in sparsely populated areas." In A Taylor, DB Carson, PC Ensign, L Husky, R Rasmussen and G Saxinger (Eds), *Settlements at the Edge: Remote human settlements in developed nations*. Gloucester, UK: Edward Elgar, 153-176. <https://doi.org/10.4337/9781784711962.00015>
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4. Sabatini F, Wormald G, Sierralta C, & **Peters PA.** (2010) "Segregación residencial en Santiago: tendencias 1992-2002 y efectos vinculados con su escala geográfica." In F Sabatini, R Salcedo, G Wormald & G Caceres (Eds.), *Tendencias de la segregación en las principales ciudades chilenas. Análisis censal 1982-2002* (pp. 19-41). Santiago, Chile: PUC-INE.
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6. **Peters PA** & Skop EH. (2009) "Urban Governance and Intra-Urban Population Differentials in Latin America: A case study of Lima, Peru." In BR Roberts & R Wilson (Eds.), *Spatial Differentiation and Governance in the Americas* (pp. 55-71). New York, NY: Palgrave MacMillan.
7. Sabatini F, Wormald G, Sierralta C, & **Peters PA.** (2009) "Residential segregation in Metropolitan Santiago, 1992-2002: geographic scale and linked social effects." In BR Roberts & R Wilson (Eds.), *Urban spatial differentiation and governance in the Americas* (pp. 121-141). New York, NY: Palgrave MacMillan.

Scientific Abstracts

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2. Ronis S, Slaunwhite AK*, **Peters PA**, & DAA Miller. (2017) "'To everything there is a season': mental health-related hospitalizations by youth and adults." *Journal of Adolescent Health*. 60(2): s23.
3. Sritharan J, MacLeod J, Harris S, Cole D, Harris A, Tjepkema M, **Peters PA**, & PA Demers. (2017) "Occupation and risk of prostate cancer in a national population-based cohort study: the canadian census health and environment cohort." *Occupational and Environmental Medicine*. 74(Suppl 1): A105-A106.
4. Arrandale VH, MacLeod J, Tjepkema M, **Peters PA**, & PA Demers. (2017) "Lung Cancer and Mesothelioma Among Canadian Mining, Smelting And Oil And Gas Workers: A Population Based Study." *Chronic Respiratory Disease in the Mining Industry*. A312-A312.
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Knowledge Translation

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2. Sinclair L*, M LeBlanc, C Sendanyoye, & **PA Peters**. (2020) "Rural Youth Health in Canada, Sweden and Australia." Spatial Determinants of Health Lab, Carlton University: Ottawa, ON.
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10. Petrie S*, & **PA Peters**. (2018) "Implementation considerations in a Complex Adaptive System." Spatial Determinants of Health Lab, Carleton University: Ottawa, ON.
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16. Lanphear B, Bassil K, Buzzelli M, **Peters PA**, & Moffatt H (lead author or contributing author for several sections). (2013) *Canadian Atlas of Environmental Health*. Available at: <http://www.ehatlas.ca>
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19. **Peters PA** & Tjepkema M. (2011) "1991-2011 Census mortality and cancer follow-up study." In *Social Statistics: The interplay among censuses, surveys, and administrative data. Proceedings of the 2010 International Methodology Symposium* (pp. 150-156). Statistics Canada (Catalogue No. 11-522-XCB): Ottawa, ON.
20. **Peters PA**. (2009) "Spatial segregation in complex urban systems: housing and public policy in Santiago, Chile." PhD Dissertation at the University of Texas at Austin, Department of Sociology; Austin, TX.
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24. Ward PM & **Peters PA**. (2005) Integrating remote sensing / GIS methods in housing analysis. In RG Alvarado, KA Cardenas, IL Meza & RB Arenas (Eds.), *2ndo Congreso Internacional Ciudad y Territorio Virtual* (pp. 78-83). Concepción, Chile: Ediciones Universidad Bio Bio.
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26. Hall GB, **Peters PA**, & Crouse DL. (2001) "The transfer of GIS technology to community planning in Peru." *Plan Canada*. 41: 15-16.
27. **Peters PA**. (1999) "The integration GIS and CAD for landscape visualization of planning housing development: a Montserrat case study." BES Thesis at the University of Waterloo, School of Planning; Waterloo, ON.
28. Hall GB, Gunn-Jones A, & **Peters PA**. (1999) "GIS under the volcano: Land data security, land-use planning and ArcView in Montserrat." *ArcUser*. 2: 36-38.

Presentations

1. **Peters PA**. (2019, September) "Social Dimensions of Population Change in Canada and New Brunswick." Presentation at the *Court of Queen's Bench Annual Learning Conference*. Saint Andrews, NB.
2. **Peters PA**. (2019, June) "Potential for Partnership: Free Range International Knowledge Partnership." Presentation at *Paris Loudon University of Salzburg*. Salzburg, Austria.
3. **Peters PA** & L Dorder.* (2018, December) "Agent-Based Models to Forecast Burden of Disease in Small Villages." Presentation at the *Free Range Australia Town Hall 2018*. Burra, South Australia.
4. Garces Davila I,* Ronis S, & **PA Peters**.† (2018, June) "Mental Health Care Utilization Among Youth with Mental Disorders: A Cross-Sectional Analysis of Hours and Types of Services Consulted." Poster presentation at the *PriFor 2018 Primary Healthcare Partnership Forum*, Memorial University of Newfoundland, Saint John's, NL.
5. Garces Davila I,* Ronis S, & **PA Peters**. (2018, June) "A Cross-Sectional Analysis of Prevalence of Mental Disorders and Access to Mental Health Care Among Youth." Poster presentation at the *PriFor 2018 Primary Healthcare Partnership Forum*, Memorial University of Newfoundland, Saint John's, NL.
6. Gupta N, Crouse DL, Balram A, Leonard P, & **PA Peters**. (2018, June) "Income inequalities and potentially avoidable hospitalizations for diabetes mellitus: a Canadian population-based cohort study." *52nd Annual Conference of the Canadian Economics Association*, Montreal, QC.
7. Garces Davila I,* Ronis S, & **PA Peters**. (2018, May) "Mental Health Care Utilization Among Youth with Mental Disorders: Hours and Types of Services Consulted." Poster Presentation at the *2018 Canadian Association for Health Services and Policy Research (CAHSPR)*, Montreal, QC.
8. Garces Davila I,* Ronis S, & **PA Peters**. (2018, May) "Access to Mental Health Services among Youth: An Analysis of Individual and Ecological Determinants." Oral presentation at the *2018 Canadian Association for Health Services and Policy Research (CAHSPR)*, Montreal, QC.
9. **Peters PA** & R Golestani.* (2017, November) "Changing Geographies of Canadian Aboriginal Population Growth: Early Results from the 2016 Census." *Population Change in Darwin & Beyond: A 2017 Update*. Darwin, Australia.
10. **Peters PA** & R Golestani.* (2017, November) "Digging in the Data." *The Future of Small Rural Communities: Knowledge Building for Rural Health*. Burra, South Australia.

11. Gupta N, Crouse DL, Balram A, Leonard P, **Peters PA**, Emery H, & JT McDonald. (2017, November) "Income inequalities and potentially avoidable hospitalizations for chronic diseases: a population-based study." *Annual Conference of the Canadian Research Data Centre Network*, Montreal, QC.
12. **Peters PA**. (2018, October) "Perspectives on Rural Health and Patient Engagement." Invited presentation at the *Senate Committee on Rural Health*, Ottawa ON.
13. Sritharan J, MacLeod J, Harris SA, Cole DC, Harris A, Tjepkema A, **Peters PA**, & PA Demers. (2017, August) "Occupation and risk of prostate cancer in a national population-based cohort study: the Canadian Census Health and Environment Cohort." *EPICOH Scientific Committee on Epidemiology in Occupational Health*. Edinburgh, Scotland.
14. Sritharan J, MacLeod J, Harris SA, Cole DC, Harris A, Tjepkema A, **Peters PA**, & PA Demers. (2017, June) "Surveillance of prostate cancer risk by occupation and industry: results from the Canadian Census Health and Environment Cohort (CanCHEC)." *Canadian Society for Epidemiology and Biostatistics 2017 Biennial Conference*. Banff, AB.
15. Arrandale V, MacLeod J, Tjepkema M, **Peters PA**, & PA Demers. (2017, May) "Lung Cancer and Mesothelioma among Canadian Mining, Smelting and Oil and Gas Workers: A Population Based Study." *2017 American Thoracic Society Conference*. Toronto, ON.
16. **Peters PA** (2016, August) "Agent Based Demographic Models for Rural and Remote Villages." *International Rural Sociology Conference*. Toronto, ON.
17. Koch A, Carson D, & **Peters PA**. (2016, August) "Thriving Communities Due to E-Health Services: A Case Study of Sweden." *The 33rd International Geographical Congress*. Beijing, China.
18. **Peters PA**. (2016, June) "Thinking Small: Re-Inventing Innis in Canadian Sociology." Keynote presentation at *Carto 2016: 50th Annual Conference of Map Libraries and Archives*. Fredericton, NB.
19. **Peters PA**. (2016, June) "Built Environment Indicators for Public Health Surveillance: Proximity to Parks and Positive Mental Health." *Canadian Association of Geographers Annual Meeting*. Halifax, NS.
20. Garces I,* Peñaherrera MA,* & **Peters PA** (2016, May) "Examining neighbourhood determinants and life history in the prevalence of mental health problems and service use among adults in Canada." *Canadian Association of Geographers*. Halifax, NS.
21. **Peters PA** (2016, April) "Industrial emissions, mortality, and social justice in urban Canada." *American Association of Geographers*. San Francisco, CA.
22. **Peters PA**. (2015, November) "Mapping the Data Landscape: Sources of Data in Rural and Remote Communities." *Mistra Arctic Research Conference*. Umeå, Sweden.
23. **Peters PA**. (2015, June) "Industrial emissions, environmental justice, and mortality: a national cohort study, 1991-2008." *Canadian Association of Geographers Annual Meeting*, Vancouver, BC.
24. Burnett RT, Crouse D, **Peters PA**, Brook J, Martin R, von Donkelaar A, Villeneuve P, Jessiman B, Chen H, Brauer M, Jerrett M, Brook R, & CA Pope III. (2013, April) "Dynamic 'Environmental' Cohorts." *Health Effects Institute Annual Conference 2013*. San Francisco, CA.
25. MacLennan J, **Peters PA**, Trenkle J & N Klenk. (2015, May) "Socio-Economic Indicators of Vulnerability Across Scales: Living with Climate Change." *CARFMS / ACERMF 8th Annual Conference*. Toronto, ON.
26. Crouse DL, **Peters PA**, Villeneuve PJ, Proux M-O, Shin HH, Goldberg MS, Johnson M, Wheeler AJ, Allen RW, Atari DO, Jerrett M, Brauer M, Brook JR, & RT Burnett. (2015, February) "Within- and between-city contrasts in nitrogen dioxide and mortality in 10 Canadian cities." Presented at the *Health Canada Science Forum*. Ottawa, ON.

27. **Peters PA.** (2014, November) "Data linkage and social relationships." *GovMaker Conference*, Fredericton, NB.
28. Crouse DL, **Peters, PA**, Villeneuve PJ, Proux M-O, Shin HH, Goldberg MS, Johnson M, Wheeler AJ, Allen RW, Atari DO, Jerrett M, Brauer M, Brook JR, & RT Burnett. (2014, March) "Within- and between-city contrasts in nitrogen dioxide and mortality in 10 Canadian cities." Presented at the *9th Annual Air Quality: Science and Application conference*. Garmisch-Partenkirchen, Germany.
29. Tjepkema M & **Peters PA.** (2013, October) "The 1991 Canadian Census Cohort." Paper presented at the *Canadian Research Data Centre Network National Conference*, Waterloo, ON.
30. Tjepkema M & **Peters PA.** (2013, June) "The 1991 Canadian Census Cohort – mortality and follow-up study: a research opportunity." Paper presented at the *Annual Meeting of the Canadian Population Society and Canadian Sociological Association*, Victoria, BC.
31. Omariba W, **Peters PA** & Tjepkema M. (2013, June) "The 1991 Canadian Census Cohort - mortality & cancer follow-up to 2011: A research opportunity." Paper presented at the *Annual Meeting of the Canadian Population Society and Canadian Sociological Association*, Victoria, BC.
32. Shaw A, **Peters PA** & Tjepkema M. (2013, June) "Socioeconomic determinants of lung cancer incidence in Canada: Results from the Canadian census mortality and cancer follow-up study." Paper presented at the *Annual Meeting of the Canadian Population Society and Canadian Sociological Association*, Victoria, BC.
33. Burnett RT, Crouse D, **Peters PA**, Brook J, Martin R, von Donkelaar A, Villeneuve P, Jessiman B, Chen H, Brauer M, Jerrett M, Brook R, & CA Pope III. (2013, April) "Dynamic Environmental Cohorts." *Health Effects Institute Annual Conference 2013*. San Francisco.
34. **Peters PA.** (2013, January) "Global health: fixing health care with data science." *T4G Leading Thinkers Big Data Congress*, Saint John, NB.
35. **Peters PA.** (2012, October) "Plenary Session: Health administrative data." *Canadian Research Data Centre Network Annual Conference*, University of New Brunswick, Fredericton, NB.
36. Lanphear B, Moffatt H, Bassil K, Buzzelli M, **Peters PA** & Tefler J. (2012, June) "The Canadian Environmental Health Atlas: A Tool for Interdisciplinary Collaboration." Workshop presentation at the *Canadian Public Health Association Conference*, Edmonton, AB.
37. Tjepkema M & **Peters PA.** (2012, June) "The 1991 Canadian Census Cohort mortality & cancer follow-up to 2011: A research opportunity." *Canadian Council of Cancer Registries Annual General Meeting*, Statistics Canada, Ottawa, ON.
38. Harris A, Tjepkema M, **Peters PA**, Demers P. (2012, May-June) "Surveillance of fire-fighter and police cancer risks in a national population-based cohort." Paper presented at *The Canadian Association for Research on Work and Health*, Vancouver, BC.
39. **Peters PA.** (2011, October) "Methodological approaches to studying Inuit health in northern Canada." Paper presented at the opening plenary of the *Circumpolar Health Metrics Conference*, Yellowknife, NWT.
40. **Peters PA** & Tjepkema M. (2011, September) "Census data linkage: 1991-2006 Canadian census mortality and cancer follow-up study." Paper presented at the *Socio-economic Conference 2011*, Statistics Canada, Gatineau, QC.
41. **Peters PA** & Atari DO. (2011, September) "Spatial methods for calculating ecological variables in environmental health research." Paper presented at the *Health Data Users Conference*, Statistics Canada & Canadian Institute for Health Information, Ottawa, ON.

42. **Peters PA.** (2011, July) "Health inequalities of Inuit Nunangat in perspective." Opening keynote at the *Thompson Rivers University International Research Institute*, Kamloops, BC.
43. **Peters PA.** (2010, October) "Getting the data right in remote Canada." Paper presented at the *Beyond Periphery Symposium 2010*, Darwin, Australia.
44. **Peters PA.** (2010, September) "Demographic and economic futures for Canada's North." Paper presented at the opening plenary of the *Beyond Periphery Symposium 2010*, Whyalla, Australia.
45. **Peters PA.** (2010, September) "Understanding remote demography in Canada." Paper presented at the *Beyond Periphery Symposium 2010*, Whyalla, Australia.
46. Bassil KL, Buzzelli M, Lanphear B, **Peters PA**, & Moffatt H. (2010, September) "Development of the Canadian Environmental Health Atlas." Paper presented at the 11th *IFEH World Congress on Environmental Health*, Vancouver, BC.
47. Bassil KL, Buzzelli M, Lanphear B, **Peters PA**, & Moffatt H. (2010, June) "The Canadian Environmental Health Atlas." Paper presented at the *Canadian Public Health Association Conference*, Toronto, ON.
48. **Peters PA.** (2009, November) "What age groups and causes of death contribute to lower life expectancy in Inuit Nunangat, 1989-2003?" Paper presented at the *NAHO Conference 2009: Our people, our health*, Ottawa, ON.
49. **Peters PA**, Bassil K, Buzzelli M, Lanphear B, & Atari DO. (2009, September) "Linking health outcomes and environmental factors: Development of a Canadian atlas of environmental health." Paper presented at the *Health Statistics Data Users Conference*, Statistics Canada, Ottawa, ON.
50. **Peters PA**, Greenberg L, & Wannell B. (2009, September) "Vital statistics in Inuit Nunaat and the Inuit subregions." Poster presented at the *Health Statistics Data Users Conference*, Statistics Canada, Ottawa, ON.
51. **Peters PA.** (2009, July) "What age groups and which causes of death contribute most to lower life expectancy in the Inuit-inhabited areas of Canada?" Paper presented at the *14th International Congress on Circumpolar Health*, Yellowknife, NWT.
52. **Peters PA.** (2009, May) "Longitudinal linkage of the National Population Health Survey to ambient air quality." Paper presented at the *Socio-Economic Conference 2009*, Ottawa, ON
53. **Peters PA** & Sabatini F. (2007, August) "Spatial segregation in complex urban systems." Paper presented at the *International Sociological Association Research Committee 21 on Sociology of Urban and Regional Development (RC21), Conference on Urban Justice and Sustainability*, Vancouver, BC.
54. **Peters PA.** (2007, April) "Spatial segregation and complex systems." Paper presented at the *American Association of Geographers Annual Meeting*, Denver, CO.
55. Ward PM & **Peters PA.** (2007, April) "Self-help housing and informal homesteading in peri-urban America: Settlement identification using digital imagery and GIS." Paper presented at the *American Association of Geographers Annual Meeting*, Denver, CO.
56. **Peters PA.** (2006, November) "La forma de lo que viene: Procesos y políticas habitacionales en Santiago, Chile." Paper presented at the *Seminario Latinoamericano 'Teoría y política sobre asentamientos informales'*, Buenos Aires, Argentina.
57. **Peters PA.** (2005, October) "Fragmentation of urban space in Latin America: A GIS approach to the analysis of segregation." Paper presented at the *2do Congreso Internacional Ciudad y Territorio Virtual*, Concepción, Chile.
58. Ward PM & **Peters PA.** (2005, October) "Integrating remote sensing/GIS methods in housing analysis." Paper presented at the *2do Congreso Internacional Ciudad y Territorio Virtual*, Concepción, Chile.

59. Skop EH, Amaral EF, Potter JE, & **Peters PA**. (2005, April) "Spatial segregation in São Paulo, Brazil." Paper presented at the *Association of American Geographers Annual Meeting*, Denver, CO.
60. **Peters PA** & Skop EH. (2005, April) "The geography of poverty and segregation in Lima, Peru." Paper presented at the *Population Association of America Annual Meeting*, Philadelphia, PA.
61. Skop EH, Amaral EF, Potter JE, **Peters PA**, & Fusco W. (2004, September) "Migração e segregação residencial no Município de São Paulo." Paper presented at the Annual Meeting of the *Associação Brasileira de Estudos Populacionais (ABEP)*, Caxambú, Brazil.
62. Skop EH, Amaral EF, Potter JE, **Peters PA**, & Fusco W. (2004, April) "Chain migration and residential segregation in Metropolitan São Paulo." Paper presented at the *Population Association of America Annual General Meeting*, Boston, MA.
63. Hall GB & **Peters PA**. (2002, May) "Global ideals and local practicalities in governance: Evidence of the spatial digital divide in education policies and planning in Lima, Peru." Paper presented at the *GIS in Developing Countries VI Conference*, Enschede, Netherlands.
64. **Peters PA** & Crouse DL. (2000, November) "Identifying areas of environmental degradation with socioeconomic statistics: Linkages between poverty and the environment." Paper presented at the *GIS in Developing Countries V Conference*, Los Baños, Philippines.

Media Articles & Opinion

1. **Peters PA**. (2016) Healthy Cities: Improving quality of life through smart planning. *Spacing Magazine*. Summer, p. 10.
2. **Peters PA**, Paige A & O'Connell H. (2016, April 9) *Frontage restriction won't protect city's heritage*. The Daily Gleaner (Fredericton). p.A11.
3. **Peters PA**. (2015, November 20) *Midwives can provide safe, efficient level of care*. New Brunswick Telegraph-Journal. p.A9. (Reprinted Nov. 23 in The Daily Gleaner. p.A6).
4. Bowden G, Crouse D, Dafnos T, Hardy N, Holtmann C, Low J, Nason-Clark N, **Peters PA**, Tramonte L, & Torri MC. (2015, September 21) *Profs Reject Colleague's Views*. Toronto Star. p.A26.
5. **Peters PA**. (2015, September 11) *Policies based on evidence needed to improve health*. The Daily Gleaner (Fredericton). p.A8.

Media Interviews

1. **Peters PA**. (2019, August 22) Interview for Ottawa Citizen. Brigitte Pellarin. *Pellarin: We need better, reliable data on air pollution in Ottawa*.
2. **Peters PA**. (2019, May 19) Interview for Huffington Post Global, Nick Robins-Early. *The White Supremacist Professor Teaching at a Public University*.
3. **Peters PA**. (2018, July 13) Interview for CBC Radio, *As It Happens*, Kevin Robertson. *Health Canada ordered to release confidential drug company data on HPV vaccines*.
4. **Peters PA**. (2018, May 14) Interview for Sverige radio, *World of Wisdom*, Olof Peterson. *Part 1/3: Aging Well: The new age pyramid*.
5. **Peters PA**. (2017, November 23) Interview for Australian Broadcasting Corporation, ABC North and West, Sarah Tomlinson. *Mornings: Mid-North Knowledge Partnership*.
6. **Peters PA**. (2017, May 4) Interviews for CBC Radio New Brunswick. *Information Morning Programs in Moncton, Saint John, & Fredericton: Release of 2016 Census Age & Sex Population Counts*.

7. **Peters PA.** (2017, February 9) Interview for CBC Radio New Brunswick. *Information Morning Fredericton: Release of 2016 Census Population Counts.*
8. **Peters PA.** (2017, Feb 9) Interview for Telegraph Journal (Saint John). *Economy needs to diversify if city wants growth: prof.* New Brunswick Telegraph Journal (Saint John).
9. **Peters PA.** (2016, June 21) Interview for Times & Transcript (Moncton). *Rising tuition and debt keep young New Brunswickers living at home.* New Brunswick Times & Transcript. p.A6.
10. **Peters PA.** (2016, May 4) Interview for CBC Radio, Terry Seguin. *Information Morning, Canadians Excited for Return of the Long-Form Census.*
11. **Peters PA.** (2016, May 4) Interview for CTV News. *Return of the Long-Form Census has Canadians Nerding Out.*
12. **Peters PA.** (2016, May 3) Interview for CBC Television. *Canadians Excited for Return of the Long-Form Census.*
13. **Peters PA.** (2015, November 8) Interview for Times & Transcript (Moncton). *Province's researchers welcome return of long-form census.* New Brunswick Times & Transcript (Moncton). p.B3.
14. **Peters PA.** (2015, September 24) Interview for CBC News Online. *UNB professors chastise colleague over immigration views.*
15. **Peters PA.** (2015, September 23) Television interview with Rachel Cave. *CBC Evening News - UNB professors chastise colleague over immigration views.* Canadian Broadcasting Corporation.
16. **Peters PA.** (2015, September 23) Interview for Times & Transcript (Moncton). *Professor defends comments on bias against 'white history'.* New Brunswick Times & Transcript (Moncton). 23 Sept. 2015. p.A8.
17. **Peters PA.** (2015, September 23) Interview for Telegraph-Journal. *Professor defends comments on white history.* New Brunswick Telegraph-Journal. p.A3.
18. **Peters PA.** (2014, September 30) Television interview with Shelley Steeves. *Evening News – National Seniors Day.* Global News Corporation.
19. **Peters PA.** (2014, September 29) Interview for Times Transcript. *Where you live helps decide how soon you die.* (Profile of Canada Research Chair appointment) Times & Transcript.
20. **Peters PA.** (2014, August 19) Radio interview with Lindsey Michael. *CBC Radio 1: Moncton – Midwifery in New Brunswick.* Canadian Broadcasting Corporation.
21. **Peters PA.** (2014, July 25) Interview by Beatrice Fantoni. *Study finds link between long-term exposure to air pollution and higher risk of diabetes-related mortality.* *Windsor Star - Health Care*, 2013. Web.

GRANTS AND CONTRACTS

2021

Principal Investigator, SSHRC Insight Grant
Evaluating inequalities in cause-related mortality using multiple causes of death
\$239,750 (2021-2025)

2020

Principal Investigator, Carleton COVID-19 Rapid Response Research Grant
Expansion and scaling of electronic health services for rural communities: An international analysis
\$12,000 (2020-2021)

Co-Investigator, SSHRC Insight Grant
Strengthening Practices: Trauma- and Violence-Informed Physical Activity
PI: Francine Darroch
\$200,000 (2020-2024)

2019

Principal Investigator, Ontario Early Researcher Award
Experience of High Health Resource Users in Rural Canada
\$191,000 direct funding, \$341,000 with matched funding (2019-2024)

Principal Investigator, SSHRC Partnership Development Grant
Free Range International Knowledge Exchange
\$199,450 (2019-2022)

Principal Investigator, Canadian Partnership Against Cancer (CPAC)
Cancer Survival and Neighbourhood Income
\$100,000 (2019-2020)

Co-Investigator, CIHR Project Scheme
Spit for Science 2 Autism Spectrum Project: Harnessing the Power of Population-Based Samples for
Gene x Environment Studies
\$1,170,450 (2019-2023)

Co-Investigator, DNA Genotek Innovation Challenges Grant
Rapid Recruitment for Large-Scale Gene by Environment Analyses in Pediatric Mental Health
\$30,000 USD (2019-2020)

Co-Investigator, CIHR Operating Grant
Healthy Cities, Healthy Minds, Genetic and Urban Environmental Influences on Childhood Mental Health
\$95,360 (2019-2020)

Co-Investigator, CIHR Operating Grant
Estimating and Mapping Urban Community Differences in Health Outcomes for Adults with Chronic
Disease in Canada
\$99,969 (2019-2020)

2018

Collaborator, CIHR Project Grant
Spit for Science 2: Genetic and environmental influences on behaviour and cognition in childhood
neuropsychiatric disorders
\$2,604,826 (2018-2023)

Principal Investigator, Carleton Health Research Development Grant
Patient-Partnered Analysis of High Health Systems Users in Ontario's Mid-North
\$10,000 (2018-2019)

Principal Investigator, SSHRC Insight Grant
Agent-Based Modelling of Population Dynamics in Small Villages
\$98,000 (2018-2019)

Principal Investigator, SSHRC Connection Grant
Free Range International Knowledge Exchange
\$49,635 (2018)

Principal Investigator, Charles Darwin University (Australia)
Free Range International Student Exchange, Canadian Principal Investigator
\$40,000 (AUD, 2018)

2017

Principal Investigator, CIHR Planning & Dissemination Grant
Forecasting the burden of chronic disease in small areas: a spatial epidemiological approach using linked micro data
\$20,000 (2017-2018)

2016

Principal Investigator, Canadian Partnership Against Cancer (CPAC)
Training on "Calculating the social determinants of health for use in cancer analysis"
\$18,000 (2016)

Principal Investigator, Canadian Partnership Against Cancer (CPAC)
Workshop on "Small-area spatial and spatio-temporal analysis of thyroid cancer incidence"
\$5,000 (2016)

Principal Investigator, Government of Canada (Health Canada)
Examining the Association between Industrial Emissions and Mortality
\$24,750 (2015 – 2016 fiscal year)

Principal Investigator, NBHRF Matching Funds
eHIPP Innovation Partnerships (New Brunswick portion of multi-province project)
\$156,200 (2016 – 2021)

Co-Investigator, SSHRC Insight Development Grant
Making Data Matter: Analyzing the material effects of big data use in the agri-food sector
\$64,000 (2016-2017)

2015

Principal Investigator, Government of New Brunswick (PETL)
Population Dynamics in Sparsely Populated Areas
\$55,000 (2015 – 2016 fiscal year)

Principal Investigator, New Brunswick Health Research Foundation (NBHRF) Bridge Grant
Small-area Rate Variation of Chronic Disease in New Brunswick.
\$25,000 (2015 – 2017)

Co-Investigator, CIHR Operating Grant: eHealth Innovation Partnership
Caring near and far: a multi-province investigation of remote monitoring technologies connecting community-based older-adults and their care team.
\$1,480,742 (2016 – 2021)

Co-Investigator, SPOR PIHCI Network: Management & Operations Grant
Creating a New Brunswick Strategic Patient Oriented Research (SPOR) Network for the Primary and Integrated Primary Health Care Innovations (PIHCI)
\$1,000,000 (2015 – 2020)

Co-Investigator, CIHR Partnerships for Health System Improvement (PHSI)
MAAP-AC: Models and Access Atlas of Primary Care in Atlantic Canada. Strengthening Canada's

Community Based Primary Healthcare System through Collaborative, Applied, and Policy-Relevant Research

\$10,000 (2015 – 2016)

Principal Investigator, University Research Fund (University of New Brunswick)

Database generation and data visualisation of social and spatial determinants of health

\$7,000 (2014 – 2016)

2014

Principal Investigator, Government of Canada (Public Health Agency of Canada)

Geospatial determinants of positive mental health

\$10,000 (2014 – 2015 fiscal year)

Principal Investigator, NBHRF Establishment Grant

Canada Research Chair, Salary Complement

\$30,000 (2014 – 2016)

2013

Principal Investigator, Canadian Foundation for Innovation, Leaders Opportunity Fund

Advanced server infrastructure for confidential record linkage and collaborative spatial analysis

\$73,496 (2014 – 2019)

ACADEMIC SERVICE

Committees and Service

2020

Carleton University

Graduate Advisor, Department of Health Sciences

Awards Committee, Department of Health Sciences

Equity, Diversity, and Inclusion Committee, Faculty of Science

Chair, Senate Committee on Student Awards

Member, SSHRC Internal Awards Program Review Committee

Member, Health Sciences Instructor Search Committee

Canadian Research Data Centre Network

Graduate Advisor, Department of Health Sciences

Awards Committee, Department of Health Sciences

Member, National Conference Organizing Committee

Statistics Canada Research Data Centre (COOL RDC)

Member, Carleton Steering Committee

Member, COOL RDC Advisory Committee

Social Sciences and Humanities Research Council (SSHRC)

Chair, Insight Development Grant Committee

2019

Carleton University

Graduate Advisor, Department of Health Sciences
Chair, Senate Committee on Student Awards
Member, SSHRC Exchange Program Review Committee
Chair, Departmental Tenure and Promotion Committee (DTPC)

Statistics Canada Research Data Centre (COOL RDC)

Member, Carleton Steering Committee
Member, COOL RDC Advisory Committee

CIHR Institute for Population and Public Health (IPPH)

Chair, Early Career Investigator Mock Peer Review (2019)

Social Sciences and Humanities Research Council (SSHRC)

Member, Insight Grant Review Committee (2019)

UNICEF Canada

Advisory Committee, Canadian Index of Youth Wellbeing

2018

Canadian Institutes of Health Research (CIHR)

Vanier/Banting Doctoral Scholarship Selection Committee (2016-2018)

Social Sciences and Humanities Research Council (SSHRC)

Connection Grants Review Committee Member (2017-2018)

Northern Institute, Charles Darwin University

Research Leader, Free Range Student Research Network

2017

Maritime SPOR Support Unit (MSSU – CIHR funded)

Chair, Research Advisory Committee

Canada Research Chairs Secretariat (CRC)

Program Advisory Committee on Equity Policy

Primary and Integrated Health Care Initiative (PIHCI SPOR – CIHR funded)

Operations Committee & Executive Committee

Canadian Partnership Against Cancer, Canadian Council of Cancer Registrars

Joint Analytic Project on Small-Area Spatio-Temporal Analysis of Thyroid Cancer Incidence

University of New Brunswick

Co-Coordinator, ESRI Canada Centre of Excellence in Higher Education
Faculty of Arts, Level II Faculty Assessment Committee
Research Services, Strategic Research Plan Steering Committee
Research Data Centre Management Committee
NB-IRDT, Strategic Directions Committee

2016

University of New Brunswick, Faculty of Arts

Member, Harrison McCain Fellowship Review Committee
 Maritime SPOR Support Unit (MSSU – CIHR funded)
 Co-Chair, Scientific Advisory Committee

2014

University of New Brunswick, Faculty of Arts
 Level II Faculty Assessment Committee
 Global Citizenship Certificate Advisory Committee
 International Development Studies Steering Committee
 Canadian Foundation for Innovation (CFI)
 Expert Grant Review Committee Member

2011-2014

Statistics Canada
 Vital Statistics Working Group

2011-2013

Statistics Canada
 Data Visualization Working Group

Memberships and Involvement in Professional Organizations

2014-

Society of Rural Physicians of Canada
 Sparsely Populated Areas Demographic Research (SPADE) – Academic research organization for specialists in demographic research in rural, remote, and sparsely populated areas
 Canadian Association of Geographers

TEACHING AND MENTORSHIP

Course Instruction

2022	HLTH 1002: Health Science Communication HLTH 5800: Directed Studies: Health GIS
2021	HLTH 5901: Advanced Topics in Interdisciplinary Health Sciences HLTH 5800: Directed Studies: Health GIS
2020	HLTH 1002: Health Science Communication HLTH 5800: Directed Studies: Health GIS HLTH 5901: Advanced Topics in Interdisciplinary Health Sciences
2019	HLTH 5901: Advanced Topics in Interdisciplinary Health Sciences HLTH 4201: Applied Health Statistics HLTH 1002: Health Science Communication
2018	HLTH 5901: Advanced Topics in Interdisciplinary Health Sciences

	HLTH 4201: Applied Health Statistics
2017	ECON 6565: Economic Geography
2016	SOCI 3703: Social Demography SOCI 6713: Methods in Social Demography ECON 6285: Public Policy Analysis
2015	SOCI 3523: Sociology of International Development IDST 3003: Institutions of International Development ECON 6285: Public Policy Analysis
2014	SOCI 3523: Sociology of International Development
Seminars	Introduction to Geographic Information Systems in the Social Sciences (Nov 2016) Introduction to Geographic Information Systems (September 2015) Introduction to PCCF+, 2-day workshop (March 2014) Spatial Analysis in the Social Sciences (April 2009)

Instructional Training

2019	Designing Learning Outcomes from Scratch
2018	Putting Your Course “on the Map”: Designing Courses that Align with Your Program’s Learning Outcomes To Cheat, or Not to Cheat – That is Not the Question: Preventing Plagiarism through Design
2015	Effective Teaching Institute: Terms of Engagement: Practical Strategies for Promoting Student Engagement in Today’s College Classroom How should we think about how our students think? Resources and Framing The Power and Possibilities of Misconceptions
2014	Understanding Mindsets: creating self-regulated learners Teaching Triangles (multi-session program)

Graduate Supervision

Continuing	Reyhaneh Golestani (PhD, Health Sciences, expected 2022) <i>Gender, Geography, and Health: A comparative study on young women’s access to healthcare systems in small communities in Canada, Australia, and Sweden.</i>
	Samuel Petrie (PhD, Health Sciences, expected 2022) <i>Complexity Science and the Evaluation of Pilot Projects within Health Sciences.</i>
	Daniel Cousineau-Short (PhD, Health Sciences, expected 2023) <i>Recovery After Injury for Members of the Canadian Armed Forces.</i>
	Sarah Jones (PhD, Health Sciences, expected 2024) <i>Expanding the Impact Assessment Process: evaluating the impacts of natural resource extraction on intersectional and intergenerational health and wellbeing of Indigenous communities in northern Canada.</i>
	Melissa Edwards (PhD, Health Sciences, expected 2025) <i>Can digital spaces create healthier places? Equitable e-mental health information and services for rural women and LGBTQ2S+ persons</i>

- Mara Ostafichuk (PhD, Geography, in memoriam)
High-Resource Health System Users in Rural Canada, Australia, and Iceland
- Marina White (PhD Committee Member, Health Sciences, expected 2022)
Investigating relationships between maternal diet and placental phenotype in pregnancies complicated by fetal spina bifida
- Claudia Sendanyoye (MSc, Health Sciences, expected 2022)
A Feminist Perspective on Men's Health in Rural Canada and Australia
- Maria Tovar (MSc, Health Sciences, expected 2022)
The 'Other Doctors': Access to Dental Care in Rural and Remote Communities
- Tomoko McGaughey (MSc, Health Sciences with Specialization in Data Science, expected 2023)
Chronic disease across the urban rural divide: Investigating the link between social determinants of health and chronic disease high resource
- Hira Anjum, Khalid Bastawisy, Benjamin Burrows, Carolyn Van Dam (MSc, HSTP, expected 2023)
Rural Research: Information, Statistics, Knowledge (Rural R:ISK)
- 2021 Simon Boushel (MSc, Health Sciences, expected 2021)
Environmental Exposures and Genetic Markers for Autism, ADHD, OCD
- Fatima Asad Ahmed, Julia Bobiak, Fozia Fur, Julia Morris (MSc, HSTP, 2021)
Canadian Rural Health Atlas: Development of an interactive resource
- 2020 Alexa Mahling, Monica Sourial, Sajra Trto (MSc, HSTP, 2020)
Cracking the Rural Health Code: Policy, Practice, and Potential
- Madeline Lamarra (MSc Committee Member, Health Sciences, 2020)
(re)Defining Access to Transportation for Seniors: A public health perspective
- 2017 Kathryn Asher (PhD Sociology, September 2017)
Is the Perfect the Enemy of the Good? The Role of Dietary Choices, Perceptions, and Experiences in Meat Consumption Patterns in the U.S.
- Isabel Garcés (Master of Applied Health Sciences, July 2017)
Individual and Ecological Determinants of Access to Mental Health Services Among Youth: An Analysis of Survey and Census Data
- 2016 Rachelle Pelletier (MA Economics, September 2016)
The Impact of English-French Bilingualism on Wages in Canada
- Mingjin Xia (MA Economics, December 2016)
The Impact of Population Aging on Individual Consumption in China

Undergraduate Thesis Supervision

- 2021/2022 Ayshia Bailie (BSc, Biology)
Rural Community Engaged Research: Developing Partnerships
- Kail Schlachter (BA, Geography and Environmental Studies)
Representation of Autism in the Media: Analysis of environmental journalism
- 2020/2021 Tasha Burhunduli

Impact of mining on *cultural*, economic, and environmental determinants of health in northern Canadian communities

Michele LeBlanc (BHSc)

Defining High Resource Health Users in Rural Settings

Owen McVeigh (BHSc)

ADHD and OCD Genetic Influences: How nature provides a beneficial environment

Amara Umeh (BHSc)

Beyond Wait Times: Examining the use of wait times as an indicator of system health

2019/2020

Rami El Shaar (BSc, Biology)

Inequalities in Mortality from Infectious Diseases in Rural and Remote Canada.

2018/2019

Chelsea Waid (BHSc)

Designing health services for 'hard to reach' rural populations in Sweden and Canada.

Claudia Sendanyoye (BHSc)

Comparative Analysis of Recruitment and Retention Initiatives of Healthcare Professionals in Rural Communities in northern Sweden, the Mid North of South Australia, and the 'forgotten north' of Canada.

Liam Priest (BHSc)

An Evaluation of Rural Youth Substance Use in Canada and Sweden: Causes, Services and Demographics.

Sydney Morris (BHSc)

A Review of the Transferability of eHealth Initiatives for Small Rural Communities into "Scaled-Up" Programs.

Sereen Aboukarr (BPAPM)

Best practices to increase adoption and use of eMental Health in rural Canada and Australia: A scoping review.

2018

Lindsay Dorder (BHSc)

Examining distributions of frequent healthcare users with chronic diseases using patient-engagement processes and geographic patterns.

Internship Supervision

2021

Jelissa Dawkins (Health Sciences Research Internship) *Hight Resources Rural Health Users*

Angeli Figurado (I-CUREUS) *Oral Health Interventions in Rural Canada*

Khalil Kain (SDHL Internship) *Multiple Cause of Death Analysis*

Cesar Kattini (I-CUREUS) *Rural Indicators for the Social Determinants of Health*

Eli Mondor (SDHL Internship) *Developing an Interactive Rural Access Map*

William Rice (Deans Summer Research Internship) *Interactive Infographics for Rural Eldercare*

2020

Jaymie Barnabe (SDHL Free Range Internship) *Community engaged research in the Madawaska Valley, a Free Range project*

- Owen McVeigh (SDHL Data Analysis Internship) *Developing spatial data models and analysis for links between the environment and neurological conditions*
- Eli Mondor (SDHL Data Analysis Internship) *Creation of core data sets for rural health research*
- Mikayla Young (I-CUREUS) *Recruitment and Retention of Mental Health Professionals in Rural Canada and Australia.*
- 2019 Holly Simpson (I-CUREUS) *Inequalities in Health in Rural and Remote Canada.*
- Sebastian Steven (Health Sciences Research Internship) *Knowledge Mobilization of Rural Health Research Across the Life-course.*
- Kelly Biggs (I-CUREUS) *High Resource Hospital Users in Rural Canada.*
- 2018 Michele LeBlanc (I-CUREUS) *Patient and Provider Perspectives of High Resource Hospital Users in Rural Ontario.*
- Michele LeBlanc (Deans Summer Research Internship) *Analysis of eHealth Pilot Projects in Rural Sweden, Canada, and Australia.*
- Saambavi Paskaran (Health Sciences Research Internship) *Analysis of eHealth Pilot Projects in Rural Sweden, Canada, and Australia.*
- Shireen Fergal (Health Sciences Research Internship) *Geographic Variation of Frequent Hospital Users and Income Inequality in Rural Communities of Canada.*

Directed Studies Supervision

- 2020 Adam Green (BHSc, Fall 2020, 0.5 credit)
Inequality in Mortality by Income, Rurality, and Cause of Death in Canada
- Tiffany Kok (BHSc, Fall 2020, 0.5 credit)
Environmental and Social Inequities in Canada
- Graduate summer course – 9 students (Summer 2020, 0.5 credit)
GIS and Public Health
- 2019 Sajra Trto (MSc HSTP, Fall 2019, 0.5 credit)
Cancer Survival by Economic Family Income in Canada
- Nahya Awada (PhD in Public Affairs, Summer 2019, 0.5 credit)
Access to Orphan Drugs in Canada: beyond reimbursement decisions
- Alexa Mahling, Monica Sourial (MSc HSTP, Summer 2019, 0.5 credit)
Qualitative Methods in Health Sciences
- Holly Simpson (BHSc, Summer 2019, 0.5 credit)
Remoteness and Health Outcomes in Rural Canada
- Erica Chen, Devin Wood (MSc HSTP, Summer 2019, 0.5 credit)
Research on Current Health Issues Reflecting Age, Gender, Culture, and Sexual Orientation
- 2018 Kelly Biggs (BHSc, Fall 2018, 0.5 credit)
Frequent Hospital Users and Income Inequality in Rural Canada.
- Saambavi Paskaran (BHSc, Fall 2018, 0.5 credit)
Rural eHealth Initiatives for Chronic Disease Management.

Laleah Sinclair (MSW, Summer 2018, 1.0 credit)

Accessibility of Health Services for Rural Youth in Remote Sweden and Canada.

Chelsea Waid (BHSc, Summer 2018, 0.5 credit)

Reflections on Designing Health Services for 'hard to reach' Rural Youth.

Claudia Sendanyoye (BHSc, Summer 2018, 0.5 credit)

Reflections on Recruitment and Retention Initiatives in Australia, Canada, and Sweden.

Thesis Examinations

- 2020 Colin Capaldi (PhD Psychology), January 2020
 "From mother to Mother Nature: The role of interpersonal attachment in human-nature relations."
- 2018 Silvana Agterberg (MA Psychology), August 2018
 "Examining gendered treatment barriers among people with substance use and co-occurring mental health problems."
- Kent Thomas Jacobs (MSc Geography and Environmental Science), August 2018
 "Quality Assessment of Volunteered Geographic Information: An Investigation into the Ottawa-Gatineau OpenStreetMap Database."
- Patrick Reid (MSc Epidemiology, Dalhousie University), March 2018 (external examiner)
 "Small-area variations in unplanned repeat hospitalization in Nova Scotia."
- 2017 Saibo Peng (MA Economics), January 2017
 "What is the Relationship between Industry, Occupation, and Body Weight in Canada?"
- 2016 Jafar El Armali (MA Economics), May 2016
 "Long-Run Unemployment: Natural or Epiphenomenal?"
- David Miller (MA Psychology), April 2016
 "Examination of Repeat Hospital Admissions for Mental Health Conditions Among Children and Adolescents in New Brunswick"
- Stephanie Richardson (MA Applied Health Studies), August 2016
 "Leaving the Nest: Differences in Mental Health Among Canadian Youth Who Live With Their Parents and Those Who Live Independently"
- 2015 Haorui Wang (MA Economics), December 2015
 "The Healthy Immigrant Effect: Differentials between Canadian Immigrants and Native-born Population in the Education Health Gradient"
- Pius Ariho (PhD Mathematics), July 2015
 "Mathematical Models of Malaria Control with Artificial Feeders, Odorants and Bed Nets"
- 2014 Sabarish Muthu (M.Eng. Geomatics & Geodesy Engineering), December 2014
 "Visualization, Statistical Analysis, and Mining of Historical Vessel Data"

LAURA PICKELL, PhD

LIFE SCIENCE EDUCATOR



MY PROFILE

I am a biologist who loves teaching and mentoring students in higher education. I enjoy engaging students with creative new pedagogies and with the latest discoveries in health science. My goal is to empower our future change-makers through transformative learning and to be a leader in life science education.

MY EDUCATION

Master Teacher Program

Université de Sherbrooke | 2017 - present

PhD, Human Genetics

McGill University | 2002 - 2009

Studied the effects of folic acid on embryonic development in mice.

BSc, Honours Biochemistry

McGill University | 1998 - 2002

Completed honours project in bioinformatics.

MY AWARDS

AQPC Teaching Award 2020

Canadian Citizen

MY TEACHING EXPERIENCE

Instructor | Health Sciences, Carleton University | 2020-present

- Built and taught five online courses in 2020-2021, coordinating the development of new labs for Microbiology for Fall 2021
- Developed experiential learning activities: Ex. community-service learning with Let's Talk Science and Dementia Ottawa, project on inclusive online learning with READ at Carleton
- Brought in expert guest lectures: Ex. health technology experts from CADTH and Health Canada, individuals living with disabilities for empathic design.
- Used evidence-based instructional strategies: case studies, flipped lessons, reflective learning, active learning, role play, inclusive strategies

Instructor | Science and Nursing, Heritage College | 2009-2020

- Taught and developed curriculum for a broad range of courses in the biomedical sciences for over ten years
- Taught to a variety of students populations, ex. majors and nonmajors
- Mentored students in literature reviews and portfolio development for exit assessment

MY LEADERSHIP & PROJECTS

Carleton University | 2020-present

- Selected as Health Sciences Teaching Mentor, 2021-2022
- Co-founded the FoS Teaching and Learning Committee
- Developed and facilitated workshops on teaching in Science
- Awarded SOPI grant for developing online active learning activities
- Led discussions on teaching practices at department meetings
- Co-piloted successful Peer Study Group
- Mentored four students with the SaPP, one student with the work study program, a research assistant and many TAs

Heritage College | 2009-2020

- Managed faculty workloads, program budgets, work plans, program evaluations, faculty evaluations as Department Coordinator
- Created action plan with Academic Dean to develop future skills in students called the 21st Century Skills Project
- Ran peer tutoring courses and trained students in an international tutor training program certified by the CRLA
- Developed policies on academic integrity and admissions as faculty member of the Academic Senate
- Facilitated PD sessions in problem-based and experiential learning

Other

- Case study reviewer, National Center for Case Study Teaching in Science with the University of Buffalo, 2017-present
- Judge, Canada-Wide Science Fair, 2021

SOME STUDENT FEEDBACK FROM THIS PAST YEAR :)

"This course was synchronous which was so helpful. Most of my classes were asynchronous and I find it really hard to keep up with them. Laura is so welcoming and makes a great class environment, I always felt comfortable participating."

"This was the best synchronous course I had this semester. Laura, you were able to make the material interesting and engaging despite having to do all the teaching online. Thank you for a great semester!"

"I really enjoyed the case studies and their format. I found that instead of cram studying for the test I was more focused on the topic as a whole and ended up learning a lot more."

"I loved Laura because she seemed to actually care about us, our understanding, our stress levels, etc. She didn't rush our learning and taught WITH us (notes, explanation, etc), not to us which definitely helps us learn better."

"I wanted to thank you for giving us the opportunity to volunteer with Let's talk science. Personally, I found it to be a great experience and working with the kids was refreshing!"

"I just wanted to say thank you very much for your efforts this past school year. I very much enjoyed the content of both HLTH 3404 last semester and HLTH 3402 this semester. I feel that I have learned a lot as well as becoming more mindful of my own lifestyle choices."

MY PROFESSIONAL DEVELOPMENT

Master Teacher Program | 20-21

- Completed another course toward Graduate Certificate in College Teaching: Pedagogy of Digital Learning

Recent Workshops & Webinars

- Carleton STEM Ed Journal Club participant, 2020-2021
- National Institute on Scientific Teaching - "Solve My Problem" working group on developing strategies to promote inclusive teaching in your department, Summer 2021
- Supporting Active Learning & Technological Innovation in Studies of Education (SALTISE) Conference, 2018-2021
- ENABLE Ottawa Conference, 2020 & 2021
- ASM Conference for Undergraduate Teaching, 2020 & 2021
- ASBMB Webinar - "Steps Toward Equity in STEM", Summer 2020
- Contact North Online Webinars - "How to Make Your Course Interactive and Engaging", "How to Engage Online Learners in Authentic Assessment", Summer 2020
- National Association of Biology Teachers Conference, 2020

Additional Training

Writing Assessments Workshop

HHMI BioInteractive | November 2019

- Workshop on "Writing Assessments that are Relevant, Engaging, and Evaluate Outcomes".

Case Study Teaching in Science Training

National Center for Case Study Teaching in Science

University of Buffalo | 2015 & 2016

- Workshop on teaching with and writing case studies

Faculty Mentoring Network

HHMI BioInteractive | June-Dec 2018

- Selected to develop an instructional resource on Sex Determination in collaboration with educators from across North America.

MY PUBLICATIONS

Pickell, L. (2020) [Where's the Evidence? Confronting Public Panic about COVID-19](#). National Center for Case Study Teaching in Science. University of Buffalo, NY.

Allen, J.A., Landry, C., Pickell, L., Taylor, D. (2019) [Regulation of Sex Determination](#). HHMI BioInteractive FMN 2018, QUBES Educational Resources. doi:10.25334/Q4TQ7P

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|--------------------------------|---|
| September 1997-
August 2002 | Brock University , Canada
• Honours Bachelor of Arts in Psychology (First Class Standing) |
| October 1999-
May 2000 | Université de Perpignan , France
• Minor requirements in French Language & Literature |

RESEARCH STATEMENT SUMMARY

My research takes an interdisciplinary and community-based approach in order to contribute toward understanding and promoting individuals' mental health, and healthy societies more broadly, by focusing on three interconnected themes: healthy aging, religious and ethnic social identities, and coping with stress. These themes come together in my focus on social isolation as a public health crisis affecting both younger and older populations. My ongoing research program is thus grounded in a social identity theoretical framework for studying health among potentially vulnerable populations (e.g., older adults living alone, caregivers of older adults living with dementia, individuals who have experienced stigma or discrimination) in order to transform understandings of psychosocial care and improve mental health outcomes.

AWARDS & RECOGNITIONS

- Carleton University Faculty of Science Teaching Excellence Award (\$1000; 2021)
- Carleton University Faculty of Science Impact Award (\$1000; 2019)
- Carleton University New Faculty Excellence in Teaching Award (\$500; 2018)
- Carleton University New Faculty Supplement Award (\$10,000; 2015)
- SAGE most downloaded *Personality and Social Psychology Review* (PSPR) article (2010)
- *Canadian Psychological Association* Certificate of Academic Excellence (PhD Thesis; 2009)
- *Canadian Psychological Association* Certificate of Academic Excellence (Master's Thesis; 2006)
- Carleton University Nicholas P. Spanos Memorial Award in Psychology (2004-2005)
- Brock University Cara Cherfurka Memorial Prize for Highest Graduating Average (2002)

RESEARCH FUNDING

- *Canadian Foundation for Innovation (CFI): Abilities Living Laboratory (ALL)* (\$2,370,000; awarded Nov 2020; PI: Adrian Chan, Dept. of Systems and Computer Engineering, Carleton University)
- *Carleton University Development Grant. COVID-19 and seniors at home: Fostering social connections and well-being innovations.* (\$9,862; awarded July 2020; **PI: R. Ysseldyk**)
- *Carleton University COVID-19 Rapid Response Research Grant. COVID-19 and seniors at home: Addressing diverse needs, supporting seniors' service innovation.* (\$19,000, awarded May 2020; PI: S. Braedley; co-investigators: **R. Ysseldyk**, D. Kao, L. Brooks-Cleator)
- *Carleton University Multidisciplinary Research Catalyst Fund (MRCF) Grant. Future of Work*

(Transitions). (\$50,000; awarded March 2019; PI: L. Schweitzer, Sprott School of Business)

- *Carleton University Multidisciplinary Research Catalyst Fund (MRCF) Grant*. Canadian Accessibility Network. (\$50,000; awarded March 2019; PI: A. Chan, Department of Systems and Computer Engineering)
- *Social Sciences and Humanities Research Council (SSHRC): Partnership Grant (Stage 2)*. Imagining Age-Friendly “Communities” within Communities: International Promising Practices. (Total Funding: \$4,144,110 = SSHRC \$2,500,000 + partners’ cash / in-kind \$1,815,234.24; awarded April 2018) Project Director: Tamara Daly; Co-applicants: Gudmund Ågotnes, Albert Banerjee, Donna Baines, Susan Braedley, Julia Brassolotto, Sara Charlesworth, Sally Chivers, Jacqueline Choiniere, Karine Côté-Boucher, Rachel Gorman, Sienna Caspar, Frode Fadnes Jacobsen, Monique Lanoix, Katherine Laxer, Martha MacDonald, Patricia D. McGuire, Beatrice Müller, Mia Vabø, Frank Tsen-Yung Wang, **Renate Ysseldyk**; Collaborators: Ivy Bourgeault, Lone Grøn, Stephen Katz, Joel Lexchin, Dan Monafu, Sheila Neysmith, Tine Rostgaard, James Struthers. Academic Partners: York University, York University Centre for Aging Research and Education (YU-CARE), Carleton University, Trent University, Trent Centre for Aging and Society (TCAS), University of Lethbridge, International Centre for Comparative Criminology at Université de Montréal, Saint Paul University; Sector Partners: Alberta Health Service, Alzheimer Society of York Region (ASYR), Canadian Union of Public Employees, Care Watch Ontario, City of Toronto, Egale Canada Human Rights Trust, Ontario Native Women’s Association, VIVE -- The Danish Centre for Social Science Research, The Council on Aging of Ottawa, Toronto Council on Aging (TCA)
- *Centre for Aging and Brain Health Innovation (CABHI)*. The power of peer support: Reducing social isolation in residential care. (\$250,000; awarded July 2017; PI: Z. Orosz (Bruyère Continuing Care); Co-applicants: T. Luciani (Bruyère Continuing Care); K. Theurer (Java Group Programs), **R. Ysseldyk** (Carleton University); Collaborators: G. Dingle, C. Haslam (University of Queensland, Australia)
- *Carleton University Development Grant*. Peer support and dementia: Reducing social isolation by enhancing social identity. (\$10,000; awarded June 2017; **PI: R. Ysseldyk**)
- *Social Sciences and Humanities Research Council (SSHRC): Partnership Grant (Stage 1)*. Imagining Age-Friendly “Communities” within Communities: International Promising Practices. (\$20,000; awarded June 2017). PI: Tamara Daly; Co-applicants: Susan Braedley, Sally Chivers, Julia Brassolotto, Rachel Gorman, Monique Lanoix, Ivy Bourgeault, Sara Charlesworth, Sienna Caspar, Jacqueline Choiniere, Gudmund Ågotnes, Donna Baines, Albert Banerjee, Karine Côté-Boucher, Frode Fadnes Jacobsen, Kate Laxer, Martha McDonald, Patricia D. McGuire, Beatrice Müller, Mia Vabø, Natalie Waldbrook, Frank Tsen-Yung Wang, **Renate Ysseldyk**; Collaborators: Lone Grøn, Tine Rostgaard, James Struthers, Stephen Katz, Joel Lexchin, Sheila Neysmith; Partners: York University, York University Centre for Aging Research and Education, Trent University, Trent Centre for Aging and Society, Carleton University, Lethbridge University, City of Toronto, KORA -- The Danish Institute for Local and Regional Government Research, Toronto Council on Aging (TCA), Care Watch, Alzheimer’s Society of Canada (ASC), Alzheimer Society of York Region (ASYR), Council on Aging of Ottawa .

- *Social Sciences and Humanities Research Council of Canada (SSHRC): Insight Development Grant.* You've got email: Online social networking to reduce loneliness and enhance well-being among older adults. (\$61,341; awarded 2016; **PI: R. Ysseldyk**; co-investigators C. Haslam & A. Haslam, University of Queensland, Australia & T. Morton, University of Exeter, UK)
- *Centre for Research and Education on Women and Work (CREWW): Women and Work Research Incubator Grant (WWRIG).* The postdoc—the leak for women in the pipeline? (\$5,000; awarded 2016; **PI: R. Ysseldyk**; co-investigators M. Bhatia (Dept. of Microbiology & Immunology, University of British Columbia), M. Frye (Dept. of Sociology, Princeton University, USA), K. Greenaway (School of Psychology, University of Queensland, Australia), E. Hassinger, Max Planck Institute, Germany), V. Tai (BC Centre for Excellence in HIV/AIDS), E. Starkenburg (Leibniz-Institut für Astrophysik Potsdam, Germany)
- *Community Foundation of Ottawa (CFO) Grant.* Music matters: Adults with dementia and caregivers composing original songs. (\$10,000; awarded 2016; PI: T. Luciani, Artswell & Bruyère Continuing Care); Co-investigators: J. Stewart, Department of Music, Carleton University, **R. Ysseldyk**, Department of Health Sciences, Carleton University)
- *Canadian Institutes for Health Research (CIHR): Planning and Dissemination Grant.* The urban built environment and health in older adults: Identifying emerging issues for a future grant application. (\$19,950; awarded 2015; PI: P. Villeneuve, Carleton University; Co-investigator: **R. Ysseldyk**, Carleton University)
- *Carleton University Start-up Funds.* (\$65,000 awarded July 2014). **PI: R. Ysseldyk.**

Postdoctoral funding:

- *Social Sciences and Humanities Research Council of Canada (SSHRC).* Postdoctoral Fellowship (\$81,000; 2013-2015; including 8 month maternity leave)
- *Canadian Institute for Advanced Research (CIFAR).* *Global Scholars Creativity Grant: Women in Science* (\$5,000; awarded 2014; co-investigators A. Broadbent, M. Bhatia, M. Frye, K. Greenaway, E. Hassinger, E. Starkenburg, V. Tai)
- *Canadian Institute for Advanced Research (CIFAR).* Postdoctoral Fellowship (\$175,000; 2010-2013, including 1 year maternity leave)

Graduate and undergraduate funding:

- *Social Sciences and Humanities Research Council of Canada (SSHRC) CGS Doctoral Scholarship* (\$105,000; 2005-2008)
- Carleton University Athreya-Haritha Graduate Scholarship (\$1,000; 2008)
- Carleton University Graduate Tuition Scholarship (\$24,000; 2005-2009)
- Carleton University Graduate Studies & Research Scholarship (\$10,650; 2005-2008)
- Carleton University Edward Bower Carter Graduate Scholarship (\$6,000; 2005-2006)
- Ontario Graduate Scholarship (OGS) (\$15,000; 2005-2006)
- Carleton University P. D. McCormack Memorial Scholarship (\$10,000; 2004-2005)
- *Natural Sciences and Engineering Research Council of Canada (NSERC) PGS-A Master's*

- Scholarship (\$34,600; 2003-2005)
- Carleton University P. D. McCormack Memorial Scholarship (\$10,000; 2003-2004)
- Carleton University Entrance Scholarship (\$5,500; 2003-2004)
- *Social Sciences and Humanities Research Council of Canada* (SSHRC) CGS Master's Scholarship (\$17,500; 2003-2004)
- Ontario Graduate Scholarship (OGS) (\$15,000; 2003-2004)
- Ontario Graduate Scholarship (OGS) (\$15,000; 2002-2003)
- Brock University Entrance and In-course Scholarships (\$3,150; 1997-2002)

PUBLICATIONS

(*indicates student supervision; †indicates R. Ysseldyk is corresponding author)
(*h-index*=17, *citations*=2290; *Google Scholar*, May 2022)

Peer-Reviewed Papers Published or Accepted (n=24)

- *Elamurugan, K., *Esmaeilisaraji, L., *Strain, J., *Ziraldo, H., Root, A., MacDonald, H., Meekis, C., Hummelen, R., & **Ysseldyk, R.**† (accepted). Social Inequities contributing to Gestational Diabetes in Indigenous Populations in Canada: A Scoping Review. *Canadian Journal of Diabetes* (special issue on the Social Determinants of Health).
- †**Ysseldyk, R.**, *Karamally, T., Kelly, A., Morton, T., & Haslam, A. (2021). They're (not) playing our song: (Ir)religious identity moderates the effects of religious music on memory, self-esteem, and mood. *Journal of Applied Social Psychology*, 51(8), 838-849.
<https://doi.org/10.1111/jasp.12804>
- *Chen, E., *Wood, D. & †**Ysseldyk, R.** (2021). Online social networking and mental health among older adults: A scoping review. *Canadian Journal on Aging*. doi:
<https://doi.org/10.1017/S0714980821000040>
- †**Ysseldyk, R.**, Greenaway, K., Hassinger, E., Frye, M., *Zutruen, S., Lintz, J., Bhatia, M., Starkenburg, E., & Tai, V. (2019). A leak in the academic pipeline: Identity and health among postdoctoral women. *Frontiers in Psychology*, 10:1297. doi.org/10.3389/fpsyg.2019.01297
- †**Ysseldyk, R.**, Kuran, N., Powell, S., & Villeneuve, P.J. (2019). Self-reported health impacts of caregiving by age and income among participants of the Canadian 2012 General Social Survey. *Health Promotion and Chronic Disease Prevention in Canada*. doi.org/10.24095/hpcdp.39.5.01
- *Carroll, L., *Chippior, J. *Karmali, S., *Sriram, D., & †**Ysseldyk, R.** (2018). We are caregivers: Social identity is associated with less perceived stress among rural informal caregivers. *Canadian Journal on Aging*. <https://doi.org/10.1017/S0714980818000430> (Note: selected as the *Canadian Journal on Aging* "Article of the Month" with free access for December 2019)
- Villeneuve, P. **Ysseldyk, R.**, *Root, A., *Ambrose, S., *DiMuzio, J., *Kumar, N., *Shehata, M., Xi, M., Seed, E., Xiaojiang, L., Shooshtari, M. & Rainham, D. (2018). Comparing the Normalized Difference Vegetation Index with the Google Street View measure of vegetation to assess associations between greenness, walkability, recreational physical activity, and health in Ottawa, Canada. *International Journal of Environmental Research and Public Health*, 15,

1719, doi:10.3390/ijerph15081719

- †**Ysseldyk, R.**, McQuaid, R., McInnis, O., Anisman, H., & Matheson, K. (2018). The ties that bind: Ingroup ties are linked with diminished inflammatory immune responses and mental health symptoms through less rumination. *PlosOne*. <https://doi.org/10.1371/journal.pone.0195237>
- †**Ysseldyk, R.** (2017). Communicating religious identities. In H. Giles & J. Harwood (Eds.), *Oxford Encyclopedia of Intergroup Communication*. doi: 10.1093/acrefore/9780190228613.013.479
- †**Ysseldyk, R.**, Matheson, K., & Anisman, H. (2017). Revenge is sour, but is forgiveness sweet? Psychological symptoms and cortisol reactivity among women with experiences of abuse. *Journal of Health Psychology*. doi/10.1177/1359105317714319
- †**Ysseldyk, R.**, *Paric, A., & Luciani, T. (2016). Transferable practices for knowledge mobilization: Lessons learned from a community-engaged health research study. *Technology Innovation Management Review*. 6(9), 46–52. timreview.ca/article/1019
- Kachanoff, F., **Ysseldyk, R.**, Taylor, D., de la Sablonniere, R., & Crush, J. (2016). The good, the bad, and the central: Evidence of a u-shaped quadratic relation between ingroup affect and identity centrality. *European Journal of Social Psychology*, 46, 563-580. doi.org/10.1002/ejsp.2199
- †**Ysseldyk, R.**, Haslam, S.A., & Morton, T. (2016). Stairway to heaven? (Ir)religious identity moderates the effects of religious spaces on self-esteem and physical health. *Journal of Environmental Psychology*, 47, 14-21. doi.org/10.1016/j.jenvp.2016.04.016
- Greenaway, K., Haslam, S.A., Cruwys, T., Branscombe, N.R., **Ysseldyk, R.**, & Heldreth, C. (2015). From “we” to “me”: Group identification enhances perceived personal control with consequences for health and well-being. *Journal of Personality and Social Psychology*, 109, 53-74. doi: 10.1037/pspi0000019
- Haslam, C., Haslam, S.A., **Ysseldyk, R.**, McCloskey, L.G., Pfisterer, K. & Brown, S. (2014). Social identification moderates cognitive health and well-being following story- and song-based reminiscence. *Aging and Mental Health*, 18, 425-434. doi: 10.1080/13607863.2013.845871
- †**Ysseldyk, R.**, *Talebi, M., Matheson, K., Bloemraad, I., & Anisman, H. (2014). Religious and ethnic discrimination: Differential implications for social support engagement, civic involvement, and political consciousness. *Journal of Social and Political Psychology*, 2, 347-376. doi:10.5964/jspp.v2i1.232
- †**Ysseldyk, R.**, Haslam, S.A., & Haslam, C. (2013). Abide with me: Religious group identification amongst older adults promotes health and well-being by maintaining multiple group memberships. *Aging and Mental Health*, 17, 869-879. doi:10.1080/13607863.2013.799120
- Haslam, C., Haslam, S.A., Knight, C., Gleibs, I., **Ysseldyk, R.**, & McCloskey, L.G. (2012). We can work it out: Group decision-making builds social identity and enhances the cognitive performance of care home residents. *British Journal of Psychology*, 105, 17-34. doi.org/10.1111/bjop.12012

- †**Ysseldyk, R.**, Haslam, S. A., Matheson, K., & Anisman, H. (2012). Love thine enemy? Evidence that (ir)religious identification can promote outgroup tolerance under threat. *Group Processes and Interpersonal Relations*, *15*, 105-117. doi.org/10.1177/1368430211410996
- †**Ysseldyk, R.**, & Wohl, M. J. A. (2012). I forgive therefore I'm committed: A longitudinal examination of commitment after a romantic relationship transgression. *Canadian Journal of Behavioural Science*, *44*, 257-263. http://dx.doi.org/10.1037/a0025463
- †**Ysseldyk, R.**, Matheson, K., & Anisman, H. (2011). Coping with identity threat: The role of religious orientation and implications for emotions and action intentions. *Psychology of Religion and Spirituality*, *3*, 132-148. http://dx.doi.org/10.1037/a0021599
- †**Ysseldyk, R.**, Matheson, K., & Anisman, H. (2010). Religiosity as identity: Toward an understanding of religion from a social identity perspective. *Personality and Social Psychology Review*, *14*, 60-71. doi: 10.1177/1088868309349693. (Note: the SAGE most downloaded PSPR article for 2010)
- Ysseldyk, R.**, Matheson, K., & Anisman, H. (2009). Forgiveness and the appraisal-coping process in response to relationship conflicts: Implications for depressive symptoms. *Stress*, *12*, 152-166. doi: 10.1080/10253890802228178.
- †**Ysseldyk, R.**, Matheson, K., & Anisman, H. (2007). Rumination: Bridging a gap between forgivingness, vengefulness, and psychological health. *Personality and Individual Differences*, *42*, 1573-1584. doi.org/10.1016/j.paid.2006.10.032

Book Chapters Published or Accepted (n=3)

- Baines, D. & **Ysseldyk, R.** (accepted). Intersectionality, identity, and ageing. In T. Daly, S. Braedley & S. Chivers (Eds.), *Aiming for Age Equity: Policies, Practices, and Promise*.
- Mavor, K. & **Ysseldyk, R.** (2020). A social identity approach to religion: Religiosity at the nexus of personal and collective self. In K. Vail & C. Routledge, (Eds.), *The Science of Religion, Spirituality, and Existentialism* (pp. 187-206). Elsevier Academic Press.
- †**Ysseldyk, R.** & Matheson, K. (2008). Forgiveness and coping. In W. Malcolm, N. DeCourville, & K. Belicki, (Eds.), *Women's reflections on the complexities of forgiveness* (pp. 143-163). New York: Routledge.

Peer-Reviewed Papers under Review (n=3)

- *Peneycad, C., *Tippins, E., **Ysseldyk, R.** & Anisman, H. (under review). Medicine for the soul: Religious identity, coping, and mental health during the COVID-19 pandemic. *Psychology of Religion and Spirituality*.
- *Tippins, E., **Ysseldyk, R.** *Peneycad, C., & Anisman, H. (under review). Believing in science: Linking religious identity and beliefs with vaccination intentions and trust in science during the

COVID-19 pandemic. *Public Understanding of Science*.

Ysseldyk, R., Morton, T., Haslam, C., Haslam, A., Boger, J., *Giau, E., *MacDonald, E., & *Lamanna, M. (under review). You've got email: Examining the feasibility and impact of a group-based technology-training intervention on mental health among older adults living in residential care. *Canadian Journal on Aging*.

Book Chapters under Review (n=2)

*Lamanna, M. & **Ysseldyk, R.** (under review). Who gets counted? National statistics on aging and their implications for advancing age equity. Invited chapter to be included in T. Daly, S. Braedley & S. Chivers (Eds.), *Imagine Ageing: Culture, Gender, and Equity*.

*Lamanna, M., Braedley, S., & **Ysseldyk, R.** (under review). Addressing social barriers to age-equitable public transportation: Don't miss the bus! Invited chapter to be included in T. Daly, S. Braedley & S. Chivers (Eds.), *Imagine Ageing: Culture, Gender, and Equity*.

Editorials Published (n=2)

Ysseldyk, R., Bhatia, M., Frye, M., Greenaway, K., Hassinger, E., Starkenburg, E., Tai, V., & Broadbent, A. *Getting the PhD was the Easy Part*. (October 2015, Inside Higher Ed; <https://www.insidehighered.com/advice/2015/10/30/challenges-women-face-after-getting-their-phds-essay>)

Ysseldyk, R. *Why bully those who celebrate Christmas?* (December 2012, Ottawa Citizen).

PEER-REVIEWED CONFERENCE PRESENTATIONS (n=52)

*Tippins, E., **Ysseldyk, R.**, *Penycad, C., & Anisman, H. (2022, July). *Believing in science: (Dis)trust in science links religiosity, religion-science compatibility beliefs, and political orientation to vaccine hesitancy during the COVID-19 pandemic*. Paper presented at the International Research Network for the Study of Science and Belief in Society Conference, Birmingham, UK

*Tippins, E., *Penycad, C., **Ysseldyk, R.**, & Anisman, H. (2022, June). *Believing in science: Linking religious identity with vaccination intentions and trust in science during the COVID-19 pandemic*. Poster presented at the 5th International Conference on Social Identity and Health, Nottingham, UK

Ysseldyk, R., *Penycad, C., *Tippins, E. & *Rahimpour, M. (2022, June). *Medicine for the soul: Religious identity, coping, and mental health in the COVID-19 pandemic*. Paper presented at the 5th International Conference on Social Identity and Health, Nottingham, UK

MacDonald, H. & **Ysseldyk, R.** (2022, June). *Turning student assignments into publications: Benefits for students and librarians*. Poster presented to the European Association for Health

Information and Libraries (EAHIL) annual conference, Rotterdam, NL

- *Elamurugan, K., *Esmaeilisaraji, L., *Strain, J., *Ziraldo, H., Root, A., MacDonald, H., Meekis, C., Hummelen, R., & **Ysseldyk, R.**[†] (2022, June). *Social Inequities contributing to Gestational Diabetes in Indigenous Populations in Canada: A Scoping Review*. Paper to be presented at the Northern Health Research Conference (NHRC), Sudbury, ON
- *Peneycad, C., *Tippins, E., **Ysseldyk, R.** & Anisman, H. (2022, February). *Medicine for the soul: Religious identity, coping, and mental health in the COVID-19 pandemic*. Poster presented (virtually due to COVID-19) at the annual meeting of the Society for Personality and Social Psychology, San Francisco, CA
- *Tippins, E., *Peneycad, C., **Ysseldyk, R.**, & Anisman, H. (2022, February). *Believing in science: Linking religious identity with vaccination intentions and trust in science during the COVID-19 pandemic*. Poster presented (virtually due to COVID-19) at the annual meeting of the Society for Personality and Social Psychology, San Francisco, CA
- *Rahimpour, M., **Ysseldyk, R.**, & Matheson, K. (2022, February). *Religion and coping with the COVID-19 pandemic among members of the Baha'i faith*. Poster presented (virtually due to COVID-19) at the annual meeting of the Society for Personality and Social Psychology, San Francisco, CA
- Ysseldyk, R.**, *Bond, V., *Tehranzadeh, E., *Wallace, M., *Wu, C., Fleming, M., Orosz, Z., Dingle, G., & Haslam, C. (2021, July). *Better together: Identity moderates the mental health benefits of a peer support intervention among older adults in retirement homes*. Paper presented at the 5th International Conference on Social Identity & Health “Taster Event” (virtual due to COVID-19)
- *Tippins, E., **Ysseldyk, R.**, *Peneycad, C., & Anisman, H. (2021, July). *Believing in science: Linking religious identity with vaccination intentions and trust in science during a global pandemic*. Paper presented at the International Research Network for the Study of Science and Belief in Society Conference (virtual due to COVID-19)
- *Tippins, E., **Ysseldyk, R.**, *Peneycad, C., & Anisman, H. (2021, June). *Believing in science: Linking religious identity with vaccination intentions and trust in science during a global pandemic*. Paper presented at the annual meeting of the Canadian Psychological Association (virtual due to COVID-19)
- Ysseldyk, R.**, Morton, T., Haslam, C., Haslam, A., Boger, J., *Giau, E., *MacDonald, E., & *Lamanna, M. (2020, May). *You've got email: Group-based computer training enhances mental health among older adults living in residential care*. Paper accepted to present at the annual meeting of the Canadian Psychological Association, Montreal, QC (Conference cancelled due to COVID-19)
- *Chen, E., *Wood, D. & **Ysseldyk, R.** (2020, May). *Online social networking and mental health among older adults: A scoping review*. Poster accepted to present at the annual meeting of the Canadian Psychological Association, Montreal, QC (Conference cancelled due to COVID-19)
- Braedley, S., **Ysseldyk, R.**, & Cote-Boucher, K., (2019, May). *Translating “culture”: Gendered*

insights on meaning in late life from immigrant seniors. Paper presented at the Take Back Aging: Power, Critique, Imagination conference, Trent University, Peterborough, ON

*Bond, V., *Tehranzadeh, E., *Wallace, M., *Wu, C., **Ysseldyk, R.** Fleming, M., Orosz, Z., Dingle, G., & Haslam, C. (2019, May). *The power of peer support: Assessing the health impacts of the Java Music Club at Riverstone Retirement Communities*. Paper presented at the 20th Annual Therapeutic Recreation Conference, Niagara Falls, ON

*Lamanna, M., **Ysseldyk, R.**, & Daly, T. (2019, May). *The Association Between Social Inclusion and Well-Being, Mental Health, and Physical Health for Diverse Older Adults: A Secondary Data Analysis of The Canadian Longitudinal Study on Aging*. Paper presented at the biennial conference of the Canadian Society for Epidemiology and Biostatistics, Ottawa, ON

Ysseldyk, R., *Chen, E., *Lemay, J.-A., & *Wood, D. (2019, May). *Social participation, networks, support & health among older adults: Analysis of the Canadian Longitudinal Study on Aging*. Paper presented at the biennial conference of the Canadian Society for Epidemiology and Biostatistics, Ottawa, ON

Ysseldyk, R., Braedley, S., *Anjum, M., *Fersht, N., *Miloff, H., *Cruise-O'Dell, L., & *Pilon-Robertson, C. (2018, July). *Triple jeopardy: Caregiving challenges, cultural barriers, and precarious support among unpaid ethno-cultural caregivers in Ottawa*. Paper presented at the 4th International Conference on Social Identity and Health, Lausanne, Switzerland.

Ysseldyk, R. & Theurer, K. (2018, May). *The power of peer support: Reducing social isolation in long-term care*. Paper presented at the 19th Annual Therapeutic Recreation Conference, Ottawa, ON

Luciani, T., **Ysseldyk, R.**, *Paric, A., & Harris, N.E. (2017, October). *Rethinking Dementia: The role of music and art in enhancing the lives of patients and residents in care*. Symposium presented at the International Conference on Humanizing Health Care. Ottawa, ON

*Paric, A., *Latchem, N. **Ysseldyk, R.**, Luciani, T., & Stewart, J. (2017, October). *Music Matters: Social Identity and Well-being among Adults Living with Early- to Mid-Stage Dementia and their Caregivers*. Poster presented at the International Conference on Humanizing Health Care. Ottawa, ON

*Pochopsky, O., *Paric, A., **Ysseldyk, R.**, & Anisman, H. (2017, October). *Getting better with age: The mediating roles of social connectedness, rumination, and resilience in relation to aging and depression*. Poster presented at the International Conference on Humanizing Health Care. Ottawa, ON

Ysseldyk, R., McQuaid, R., McInnis, O., Matheson, K., & Anisman, H. (2017, June). *The ties that bind: Ingroup ties are linked with fewer mental health symptoms, inflammatory immune responses, and less ruminative coping*. Paper presented at the annual meeting of the Canadian Psychological Association, Toronto, ON

Villeneuve, P. *Root, A., *Kumar, N., *Ambrose, S., *DiMuzio, J., *Shehata, M., Rainham, D., & **Ysseldyk, R.** (2017, June). *Are neighbourhood walkability and greenness associated with*

increased physical activity and better self-rated health? Findings from the BEYOND Health survey of adults in Ottawa, Canada. Paper presented at the International Conference on Transport and Health, Barcelona, Spain.

*Goulet, K., *Ladak, S., *Lam, S., *Stanley, B., *Tomczak, A., Braedley, S., & **Ysseldyk, R.** (2016, October). *Through seniors' eyes: Age-friendly communities and quality of life.* Poster presented at the annual meeting of the Canadian Association on Gerontology, Montreal, QC

*Paric, A., **Ysseldyk, R.**, Luciani, T., & Anisman, H. (2016, October). *A musical affair: Songs, memories, and social connections in complex continuing care patients at Bruyere's Saint Vincent Hospital.* Poster presented at the annual meeting of the Canadian Association on Gerontology, Montreal, QC

*Pochopsky, O., **Ysseldyk, R.**, Matheson, K., & Anisman, H. (2016, October). *Buffering the stress of aging: Relationships among social group memberships, coping, and mental health.* Poster presented at the annual meeting of the Canadian Association on Gerontology, Montreal, QC

Villeneuve, P.J., Kuran, N., Powell, S., Tomczak, A., & **Ysseldyk, R.** (2016, October). *Assessing the health impacts of caregiving among participants of the Canadian 2012 General Social Survey.* Poster presented at the annual meeting of the Canadian Association on Gerontology, Montreal, QC

Ysseldyk, R., McQuaid, R., McInnis, O., Matheson, K., & Anisman, H. (2016, June). *Ingroup ties diminish inflammatory immune responses and chronic health conditions.* Paper presented at the 3rd International Conference on Social Identity and Health, Brisbane, AU

*Paric, A., **Ysseldyk, R.**, Luciani, T., & Anisman, H. (2015, November). *A musical affair: Songs, memories, and social connections in complex continuing care patients at Bruyere's Saint Vincent Hospital.* Poster presented at the Bruyère Centre for Learning, Research and Innovation in Long-Term Care Conference, Ottawa, ON

*Carroll, L., *Chippior, J. *Karmali, S., *Sriram, D., **Ysseldyk, R.**, & Aitken, S. (2015, October). *We are caregivers: Social identity and informal coping support is associated with less perceived stress among informal caregivers.* Poster presented at the annual meeting of the Canadian Association on Gerontology, Calgary, AB

Starkenburg, E. (presenter), Bhatia, M., Broadbent, A., Frye, M., Greenaway, K., Hassinger, E., Tai, V., & **Ysseldyk, R.** (other authors listed alphabetically) (2015, June). *The postdoc: The leakiest part of the academic pipeline (for women).* Talk presented at the annual Lindau Nobel Laureate Meeting, Lindau & Mainau Island, Germany

*Karamally, T., **Ysseldyk, R.**, Matheson, K., Morton, T., & Haslam, A. (2015, June). *They're (not) playing our song: The effects of identity-threatening religious music on self-esteem and memory.* Poster presented at the annual meeting of the Canadian Psychological Association, Ottawa, ON

Ysseldyk, R., *Talebi, M., Matheson, K., & Anisman, H. (2015, February). *Support through the ages: Stress and coping responses vary with age following social identity threats.* Poster presented at

the annual meeting of the Society for Personality and Social Psychology, Long Beach, CA

Ysseldyk, R., Haslam, C., Haslam, S.A., McCloskey, L.G., Pfisterer, K., & Brown, S. (2014, October). *Tell me the old old story: Turning old theory into new practice for facilitating well-being amongst older adults using story and song reminiscence groups*. Paper presented at the annual meeting of the Canadian Association on Gerontology, Niagara Falls, ON

Ysseldyk, R., Haslam, S.A., & Morton, T. (2014, June). *Stairway to heaven? (Ir)religious identity and physical spaces*. Paper presented at the 2nd International Conference on Social Identity and Health, Ottawa, ON

Ysseldyk, R., Haslam, C., Haslam, S.A., McCloskey, L.G., Pfisterer, K., & Brown, S. (2013, June). *Tell me the old old story: Group identification as the basis for cognitive and well-being effects following story and religious song reminiscence*. Poster presented at the annual meeting of the Canadian Psychological Association, Quebec, QC

Ysseldyk, R., Haslam, C., Haslam, S.A., McCloskey, L.G., Pfisterer, K., & Brown, S. (2013, June). *Tell me the old old story: Turning old theory into new practice for facilitating well-being amongst older adults using story and song reminiscence groups*. Poster presented at the annual Canadian Knowledge Mobilization Forum, Toronto, ON

Ysseldyk, R., Haslam, S.A., & Haslam, C. (2013, January). *Abide with me: Religious group identification amongst older adults promotes health and well-being by maintaining multiple group memberships*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, New Orleans, LA

Ysseldyk, R., Haslam, S.A., & Morton, T. (2011, July). *The Power of Identity-affirming Spaces: (Ir)religious Identity Moderates the Effects of Religious Environments on Self-esteem*. Poster presented at the 16th general meeting of the European Association of Social Psychology, Stockholm, Sweden.

Ysseldyk, R., Haslam, S.A., Matheson, K., & Anisman, H. (2011, January). *There's Probably No... Hostility? Collective Self-Esteem Promotes Positive Religious Outgroup Feelings Under Threat*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, San Antonio, TX

Ysseldyk, R., Matheson, K., & Anisman, H. (2010, January). *Religious Discrimination: A Two-fold Threat to Beliefs and Social Identity*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Las Vegas, NV

*Talebi, M., **Ysseldyk, R.**, Matheson, K., & Anisman, H. (2010, January). *Does Religion Matter? The Roles of Ethnic and Religious Identity, Support, and Unsupport*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Las Vegas, NV

*Talebi, M., **Ysseldyk, R.**, Matheson, K., & Anisman, H. (2009, June). *"Letting Go" is Healthy: The Roles of Forgiveness and Reduced Vengefulness in the Religion-Mental Health Link*. Poster presented at the annual meeting of the Canadian Psychological Association, Montréal, QC

- Ysseldyk, R., Matheson, K., & Anisman, H.** (2009, February). *Religious Identity and Depressive Affect: The Role of Appraisal-Coping Processes*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Tampa, FL
- ***Talebi, M., Ysseldyk, R., Matheson, K., & Anisman, H.** (2009, February). *Religion and Forgiveness are Related After All: Evidence for a Religion-Forgiveness Link and Implications for Psychological Health*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Tampa, FL
- Ysseldyk, R., Matheson, K., & Anisman, H.** (2008, June). *Coping with a Threatened Identity: Implications for Affect and Actions Endorsed*. Poster presented at the annual meeting of the Canadian Psychological Association, Halifax, NS
- Ysseldyk, R., Matheson, K., & Anisman, H.** (2008, February). *Coping with a Threatened Identity: Implications for Affect and Actions Endorsed*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Albuquerque, NM
- Ysseldyk, R., Matheson, K., & Anisman, H.** (2007, June). *Religious Identity and Depressive Affect: The Role of Appraisal-Coping Processes*. Poster presented at the annual meeting of the Canadian Psychological Association, Ottawa, ON
- Ysseldyk, R. & Wohl, M. J. A.** (2007, June). *I Forgive Therefore I am Committed: The Effect of Forgiving Your Romantic Partner on Relational Commitment*. Poster presented at the annual meeting of the Canadian Psychological Association, Ottawa, ON
- Ysseldyk, R., Matheson, K., & Anisman, H.** (2007, January). *Forgiveness and the Appraisal-Coping Process in Response to Relationship Conflicts: Implications for Well-being*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Memphis, TN
- Ysseldyk, R., Matheson, K., & Anisman, H.** (2006, June). *Dispositions toward Forgiveness and Revenge in Relation to Stress Appraisals, Coping Styles, and Psychological Well-being*. Oral presentation at the annual meeting of the Canadian Psychological Association, Calgary, AB
- Ysseldyk, R., Sudom, K., Skomorovsky, A., Matheson, K., & Anisman, H.** (2005, June). *The Role of Forgiveness in Relation to Depressive Affect and Neuroendocrine Response among Women in Abusive Dating Relationships*. Poster presented at the annual meeting of the Canadian Psychological Association, Montréal, QC
- Ysseldyk, R., Sudom, K., Skomorovsky, A., Matheson, K., & Anisman, H.** (2005, May). *The Roles of Forgiveness and Coping in Relation to Depressive Affect among Women in Abusive Dating Relationships*. Paper presented at the Women's Perspectives on Forgiveness Conference, Toronto, ON
- Ysseldyk, R., Sudom, K., Skomorovsky, A., Matheson, K., & Anisman, H.** (2005, January). *The Roles of Forgiveness and Coping in Relation to Depressive Affect among Women in Abusive Dating Relationships*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, New Orleans, LA

Belicki, K., DeCourville, N., Grahame, K., Stewart, T., & Ysseldyk, R. (authors listed alphabetically) (2003, October). *Examining Forgiveness in Two Different Contexts: Significant Personal Hurt and the Terrorism of September 11*. Paper presented at the Scientific Findings about Forgiveness Conference, Atlanta, GA

Ysseldyk, R., Belicki, K., DeCourville, N., Atkinson, T., & Grahame, K. (2003, June). *Forgiveness and Health: Attitudes Following Abuse and Trauma*. Poster presented at the annual meeting of the Canadian Psychological Association, Hamilton, ON

INVITED TALKS (*n*=26)

- Baines, D. & Ysseldyk, R. (2021, February). *Identity and social location in intersectional age-friendly analysis*. Invited talk for SSHRC Partnership Grant Seminar Series, Ottawa, ON
- Ysseldyk, R., *Lammana, L., *Serhan, M., & *Slavkovska, T. (2020, December). *Age-friendly “communities within communities” : Promising practices for seniors and caregivers in Ottawa*. Invited talk for the *Department of Health Sciences Seminar Series*, Carleton University, Ottawa, ON
- Ysseldyk, R. (2019, December). *The ties that bind: Social identities and seniors’ inclusion*. Invited talk for the *Council on Aging of Ottawa’s Social Inclusion Summit*, Ottawa, ON
- Ysseldyk, R. (2019, March). *The ties that bind: Social identities and applications for work and well-being across the lifespan*. Invited talk for the *Department of Psychology*, Brock University, St. Catharines, ON
- Ysseldyk, R. & *Lamanna, M. (2019, January). *The stats on aging: What we know, what we don’t know, and implications for age-friendly communities in communities*. Invited talk for SSHRC Partnership Grant Seminar Series, Ottawa, ON
- Ysseldyk, R. (2018, September). *Peer support and dementia: Reducing social isolation by enhancing social identity*. Invited talk at Bruyere Continuing Care, Ottawa, ON
- Ysseldyk, R. (2018, June). *Triple jeopardy: Caregiving challenges, cultural barriers, and precarious support among unpaid ethno-cultural caregivers in Ottawa*. Invited talk at CIFAR’s *Social Interactions, Identity, and Well-being* meeting, Vancouver, BC
- Ysseldyk, R., *Paric, A., *Latchem, N. Luciani, T., & Stewart, J. (2017, November). *Music matters: Social identity and well-being among adults living with early- to mid-stage dementia and their caregivers*. Invited presentation at the Japanese-Canadian Frontiers of Science (JCFoS) Symposium (co-organized by CIFAR), Okinawa, Japan
- Ysseldyk, R., Bhatia, M., Frye, M., Greenaway, K., Hassinger, E., Starkenburg, E., & Tai, V. (2017, October). *The postdoc: The leak for women in the pipeline— Identity, control and well-being among early career researchers*. Invited talk at the Centre for Research on Education, Women, and Work Research Forum, Carleton University, Ottawa, ON

- Greenaway, K., **Ysseldyk, R.**, Bhatia, M., Frye, M., Hassinger, E., Starkenburg, E., & Tai, V. (2017, June). *Fixing leaks in the pipeline— Identity, work attitudes, and well-being among early career researchers*. Invited talk at CIFAR’s *Social Identity, Interactions, and Well-being* program meeting, Kansas City, USA
- **Ysseldyk, R.** & Luciani, T. (2016, November). *Identity-affirming music: Melodies to nourish the body and mind*. Invited talk at the Alzheimer’s Society of Ottawa and Renfrew County “ReThink Dementia” Conference, Ottawa, ON
- **Ysseldyk, R.** (2016, September). *Identity-affirming music: Melodies to nourish the body and mind*. Invited talk at the Department of Psychology Colloquium Series, Carleton University, Ottawa, ON
- **Ysseldyk, R.** (2016, June). *Identity-affirming music: Melodies to nourish the body and mind*. Invited talk at CIFAR’s *Social Interactions, Identity, and Well-being* meeting, Brisbane, Australia
- **Ysseldyk, R.** (2015, November). *Tell me the old old story: Enhancing health and well-being using story and song reminiscence among older adults*. Invited talk at the *Science Café*, Sunnyside Ottawa Public Library.
- **Ysseldyk, R.** & Luciani, T. (2015, June). *Best practices in community engaged teaching and research at Carleton University*. Invited talk at the Community Engaged Pedagogy Roundtable event, Carleton University
- **Ysseldyk, R.** (2014, March). *Social identity and health: Aging, architecture, and atheism*. Invited talk for the Department of Health, Aging, & Society, McMaster University, Ottawa, ON
- **Ysseldyk, R.** (2013, May). *Religious identity and well-being: Aging, architecture, and atheism*. Invited talk at CIFAR’s *Social Interactions, Identity, and Well-being* meeting, Montreal, QC
- **Ysseldyk, R.** (2013, May). *Stairway to heaven? (Ir)religion and identity-affirming spaces*. Invited talk at CIFAR’s *Global Scholars Academy* meeting, Banff, AB
- **Ysseldyk, R.** (2012, November). *Religiosity as identity: Implications for health and well-being*. Invited talk for the *Social Identity and Groups Network*, University of Queensland, Australia
- **Ysseldyk, R.** (2012, March). *Religiosity as identity: Implications for health and well-being*. Invited talk for the *Psychology Colloquium Series*, University of Guelph, ON
- **Ysseldyk, R.** (2012, March). *There’s probably no... tolerance? Religiosity as identity in a globalized society*. Invited talk at CIFAR’s *Global Scholars Academy* meeting, Toronto, ON
- **Ysseldyk, R.** (2011, February). *Fancy a trip down memory lane?* Invited talk at the *Schlegel-University of Waterloo, Research Institute for Aging*, Kitchener, ON
- **Ysseldyk, R.** (2010, May). *Religious as identity: Implications for individual and intergroup affect*.

Invited talk at CIFAR's *Social Interactions, Identity, and Well-being* meeting, Quebec City, QC

- **Ysseldyk, R.** (2010, March). *Religious as identity: Coping with religious identity threat*. Invited talk for *Identity and the Psychology of Self in Society (IPSIS)*, University of Exeter, UK
- **Ysseldyk, R.** (2012, March). *Coping with social identity threat: Psychological, social, and political outcomes*. Invited talk for the *Psychology Colloquium Series*, Carleton University, ON

MEDIA ENGAGEMENT & OTHER KNOWLEDGE MOBILIZATION

- **Frontiers in Psychology “Leaky pipeline” paper—interview for *Nature*:**

~ Featured on Carleton University's *Centre for Research on Inclusion at Work* webpage, November 5th, 2021 <https://carleton.ca/criw/research-2/a-sense-of-belonging-could-offset-factors-driving-postdoctoral-women-to-leave-academia/>

~ Interviewed and cited in *Nature*: Woolston, C. (November 23, 2020). Postdocs under pressure: ‘Can I even do this anymore?’. *Nature*, Career Feature. <https://www.nature.com/articles/d41586-020-03235-y>

- **Age-Friendly Communities in Communities study:**

~ Braedley, S., **Ysseldyk, R.** Daly, T., Agnotes, G., Banerjee, A., Cote-Boucher, K., Young, D., Streeter, C., Lamanna, M., Serhan, M. (2020, October). *Imagining age-friendly communities within communities: A partnership for international promising practices*. Invited talk for Carleton University's *Learning in Retirement* program, Ottawa, ON <https://carleton.ca/linr/fall-2020-session/#age>

~ Featured on Carleton University's homepage, July 8th, 2020 <https://newsroom.carleton.ca/story/carleton-researchers-at-forefront-of-long-term-care-studies-amid-covid-19-pandemic/>

~ Interviewed on CKCU 93.1 FM Radio, “Special Blend” morning show, Jan 31, 2020 <https://cod.ckcufm.com/programs/158/46793.html>

- **The Power of Peer Support study:**

~ Presented “The Java Music Club” to the Good Companions’ “Seniors’ Centre Without Walls” program, May 21, 2019 <http://thegoodcompanions.ca/wp-content/uploads/2019/05/SCWW-Summer-2019-Final.pdf>

~ “The Power of Peer Support” info-graphic featured on Bruyere’s Centre for Learning, Research, and Innovation in Long-term Care (CLRI) website, May 2019 <https://clri-ltc.ca/files/2019/04/Health-Benefits-of-Java-Music-Club-Infographic-Final.pdf>

~ “The Power of Peer Support—Carleton Community Connections Video” (prepared by *Bond, V., *Tehraneh, E., *Wallace, M., *Wu, C. for 5th Annual Carleton University

Community Connections Event, April 2019, winning 1st prize for student video contest)
<https://www.youtube.com/watch?v=gaPO5DP6vfs>

~ Featured on Carleton University's website (Community Engagement Event), April 11th, 2019
<https://newsroom.carleton.ca/story/community-connection-research-innovation/>

~ Featured on Ottawa News Talk Radio 580 CFRA, (with collaborator, Bruyere Knowledge Broker, Michelle Fleming), January 29, 2019
<https://soundcloud.com/user-836177284/the-java-music-club>

~ CHAIM Centre blog: "The Power of Peer Support", December 18, 2018
<https://carleton.ca/chaimcentre/2018/the-power-of-peer-support>

~ "Better Together" Documentary, October, 2018 <https://clri-ltc.ca/2018/10/program-reduce-loneliness/>

~ Featured on Carleton University's homepage, July 10, 2018
https://newsroom.carleton.ca/story/helping-seniors-connect/?utm_source=HomepageBanner&utm_campaign=July2018

~ Carleton University, Faculty of Science "Eureka" magazine coverage of Java Music Club study at Riverstone Retirement Communities (Spring 2018 issue)
<https://science.carleton.ca/eureka>

~ CBC Ottawa News story "How retirement communities are using music to battle loneliness", May 20, 2018
<http://www.cbc.ca/news/canada/ottawa/java-music-club-seniors-isolation-1.4663308>

~ CBC Ottawa Morning coverage of Java Music Club study at Riverstone Retirement Communities, May 15, 2018 <http://www.cbc.ca/listen/shows/ottawa-morning/segment/15544494>

~ Ontario Centres for Learning, Research, and Innovation in Long-term Care (CLRI) web resource, April, 2018 <https://clri-ltc.ca/resource/power-of-peer-support/>

~ Home and Long-Term Care News magazine coverage, April 2018 (pg. 18)
https://issuu.com/hospitalnews/docs/longtermcare_april_2018_edition

~ Centre for Aging & Brain Health Innovation KMP² (Knowledge Mobilization Partnership Program) funding press release, September 26, 2017
<http://newsroom.carleton.ca/2017/09/26/carleton-researcher-looks-at-reducing-social-isolation-in-residential-care/>

• **Triple Jeopardy: Caregiving Challenges, Cultural Barriers, and Precarious Support among Unpaid Ethno-cultural Caregivers in Ottawa study:**

~ Digital sketch: "Still Caring for Mom and Dad: Seniors Speak Out", May 3, 2018
https://www.youtube.com/watch?time_continue=279&v=18N16X-_YTI

~ Digital sketch: “Connecting Senior Caregivers from Ethnocultural Communities”, November 24, 2017 <https://www.youtube.com/watch?v=pl9LhSODfbc>

~ Digital sketches featured on the *Social Planning Council of Ottawa* website (2018) <https://www.spcottawa.on.ca/creating-inclusion/ethnocultural-seniors>

~ Presented to the *Council on Aging of Ottawa—Innovative Age-Friendly Initiatives in Ottawa* (Sybil Braganza, Coordinator, Ethnocultural Seniors Project, Social Planning Council of Ottawa), November 9, 2017

~ Presented to the *Social Planning Council (SPC) of Ottawa*, June 19, 2017

- **JHP (2017) “Revenge is sour” paper:**

~ CHAIM Centre blog: “Revenge is sour, but is forgiveness sweet for women’s health?”, July 5, 2017 <https://carleton.ca/chaimcentre/2017/revenge-is-sour/>

- **Music Matters for Dementia & Health study:**

~ Ottawa News Talk Radio 580 CFRA, interview with R. Ysseldyk on “Sunday Morning Live” May 22, 2016

~ National Arts Centre (NAC) Fourth Stage performance of “*Music Matters for Dementia and Health*”, featuring 14 older adults living with dementia and their caregivers, May 1, 2016 <http://nac-cna.ca/en/event/14204>

~ CBC Ottawa Morning, April 29, 2016 <https://soundcloud.com/sarah-peterson-409614219/cbc-ottawa-morning-music-matters>

~ CBC All in a Day, April 27, 2016 <http://www.cbc.ca/allinaday/2016/04/27/music-matters-performances-features-people-with-dementia-and-their-caregivers/>

~ Featured on Carleton University’s homepage, April 26, 2016 <http://carleton.ca/our-stories/story/music-matters/>

~ CHAIM Centre blog: “Music Matters: Melodies to Nourish the Body and Mind”, April 20, 2016 <https://carleton.ca/chaimcentre/2016/music-matters-2/>

~ Music Matters video documentary by filmmaker, Christopher Rohde <https://christopherrohde.wordpress.com/>

~ Music Matters video documentary public clip (by filmmaker, Christopher Rohde) <https://www.youtube.com/watch?v=iMg1c8bshJY>

- **Music & Memory iPod study:**

~ Featured on musicandmemory.org, August, 2016

~ Featured on Ottawa News Talk Radio 580 CFRA, (interview with collaborator, Dr. Tracy Luciani), July 26, 2016

~ Bruyere Newsroom, February 2, 2016: “Striking the Right Note with the Music & Memory Program” <http://www.bruyere.org/en/newsroom?newsid=156>

- **Age-Friendly Communities “Through Seniors’ Eyes” study:**

~ Quoted in the Council on Aging of Ottawa, March 2017. *How Age-Friendly is Ottawa? An Evaluation Framework to Measure the Age-Friendliness of Ottawa*. Author: Ottawa.

~ Presented at a “Lunch ‘n’ Learn”, Ottawa City Hall, June 28, 2016

~ Featured in the Ottawa Citizen, “Through Seniors’ Eyes”, June 6, 2016
www.pressreader.com/canada/ottawa-citizen/20160606/282187945282787

~ Presented to the *Age-Friendly Ottawa Steering Committee*, May 10, 2016

~ Presented to the *Ontario Association of Social Workers—Social Work in Aging and Gerontology* (SWAG), March 31, 2016

~ Presented at Carleton University’s 3-Minute Thesis competition:
Sandy Lam: *Let’s Re-imagine Aging Together*, March 1, 2016
<http://gradstudents.carleton.ca/professionaldevelopment/3-minute-thesis/>

~ Presented at Carleton University’s 3-Minute Thesis competition:
Anna Tomczak: *Through Seniors’ Eyes*, March 1, 2016
<http://gradstudents.carleton.ca/professionaldevelopment/3-minute-thesis/>

~ Presented at Carleton University’s 4th Annual Community Engagement Event, February 24, 2016 <http://carleton.ca/edc/faculty-and-instructors/community-engaged-pedagogy/events/carletons-fourth-annual-community-engagement-event/> and <http://carleton.ca/communityfirst/2016/the-importance-of-community-campus-engagement/>

~ Through Senior’ Eyes website: <https://throughseniorseyes.wordpress.com/>

~ Through Seniors’ Eyes video: <https://www.youtube.com/watch?v=NZhsDW6Fvho>

- **BEYOND-Health study:**

~ Presented at Carleton University Life Sciences Day 2.0, May 30, 2018
<https://science.carleton.ca/lifesciencesday>

~ Presented at City of Ottawa's Healthy Trees, Healthy City event, September 21, 2016,
<http://carleton.ca/eoel/2016/healthy-trees-healthy-city-beyond-health-students-present/>

~ Presented at Carleton University’s 4th Annual Community Engagement Event, February 24,

2016 <http://carleton.ca/edc/faculty-and-instructors/community-engaged-pedagogy/events/carletons-fourth-annual-community-engagement-event/> and <http://carleton.ca/communityfirst/2016/the-importance-of-community-campus-engagement/>

~ Featured in Ottawa's Metro newspaper, January 18, 2016

<http://www.metronews.ca/news/ottawa/2016/01/18/five-ways-to-have-your-say-in-ottawa.html>

~ BEYOND-Health study website: <http://carleton.ca/eoel/beyond/>

~ BEYOND-Health study video:

<https://www.youtube.com/watch?v=YRugNivZYkg&feature=youtu.be>

- **JEP “Stairway to heaven” paper:**

~ Featured in The University of Queensland News, May 13, 2016

<https://www.uq.edu.au/news/article/2016/05/church-stairway-heaven>

- **Insider Higher Ed—Getting the PhD was the Easy Part editorial:**

~ Featured in CIFAR Ideas Exchange, Oct 30, 2015 (and tweeted by CBC's Quirks & Quarks, 62.6K followers) <http://www.cifar.ca/assets/getting-the-ph-d-was-the-easy-part/>

- **CIHR Built Environment, Social Factors, & Dementia meeting:**

~ CHAIM Centre blog: “The Built Environment and Social Connections: Possibilities for Preventing Dementia?”, July 3, 2015

<https://carleton.ca/chaimcentre/2015/built-envt-dementia/>

- **JPSP (2015) From ‘we’ to ‘me’ paper:**

~ Featured in Scientific American, July 14, 2015

<http://www.scientificamerican.com/article/the-psychological-cost-of-being-a-maverick/>

~ CHAIM Centre blog: “The Social Cure: From We to Me”, June 15, 2015

<https://carleton.ca/chaimcentre/2015/social-cure/>

~ Featured in CIFAR Ideas Exchange, May 27, 2015 <https://www.cifar.ca/assets/being-part-of-a-group-improves-perceived-personal-control-and-health/>

PROFESSIONAL DEVELOPMENT, DATA ANALYSIS & RESEARCH DESIGN COURSES

- Carleton Scholar: *Writing your Journal Article in 12 Weeks* (Carleton University, 2015, 2018, 2019)
- NVivo for Qualitative Data Analysis (Carleton University, 2017)
- Policy and Program Evaluation (Carleton University, 2008)
- Statistical Modeling of Complex Hierarchical Data (HLM) (University of New Brunswick, 2008)
- Multivariate Techniques (Carleton University, 2006)

- Advanced Regression Techniques (Carleton University, 2004)
- Advanced Analysis of Variance (ANOVA) Techniques (Carleton University, 2003)
- SPSS Data Analysis (Brock University, 2001)
- Psychological Research Methods (I & II) (Brock University, 2001)
- Statistics and Research Design in the Behavioural Sciences (Brock University, 2000)

OTHER RESEARCH APPOINTMENTS HELD

- *Centre for Research on Stress, Coping, & Well-being*, Research Associate (Carleton University, 2009-2010)
- *Centre for Research on Stress, Coping, & Well-being*, Research Assistant (Carleton University, 2003-2006)
- *Workplace Health Research Unit*, Research Assistant (full-time; Brock University, 2002-2003)
- *Developmental Psychology Laboratory*, Research Assistant (Brock University, 2000-2001)

HIGHLY QUALIFIED PERSONNEL (HQP) TRAINING

Graduate Student Supervision (*n*=15)

Department of Health Sciences—Health, Science, Technology, and Policy (HSTP) Program:

Emily Tippins, Department of Health Sciences, Carleton University. Title: *Believing in science: Linking religious beliefs and identity with vaccination intentions and trust in science during the COVID-19 pandemic* (MSc completed April 2022; in collaboration with Dr. Hymie Anisman, Department of Neuroscience)

Erica Chen & Devin Wood. Department of Health Sciences, Carleton University. Title: *Social participation, networks, support & health among older adults: Analysis of the Canadian Longitudinal Study on Aging* (MSc completed May 2020; in collaboration with Drs. A. Haslam, C. Haslam, *University of Queensland*, and Dr. T. Morton, *University of Copenhagen*)

Victoria Bond, Edna Tehranzadeh, Margot Wallace, & Connie Wu. Department of Health Sciences, Carleton University. Title: *The power of peer support: Assessing the health impacts of the Java Music Club in residential care settings* (MSc completed April 2019; in collaboration with *Bruyère Continuing Care*, *Riverstone Retirement Communities*, and *Java Group Programs*)

Jenna Briglio, Laura Lobay, Christine Soong, & Kristen Zintel, Department of Health Sciences, Carleton University. Title: *Peer support and dementia: Reducing social isolation by enhancing social identity* (MSc completed April 2018; in collaboration with *Bruyère Continuing Care* and *Java Group Programs*; co-supervised with Dr. Tracy Luciani, *Bruyère Continuing Care*, and Kristine Theurer, PhDc., MA (Gerontology), *Java Group Programs* Founder and President)

Mehreen Anjum, Natalie Fersht, Hayley Miloff, Laura Cruise-O'Dell, & Claire Pilon-Robertson, Department of Health Sciences, Carleton University. Title: *Triple Jeopardy: Caregiving Challenges, Cultural Barriers, and Precarious Support among Unpaid Ethno-cultural*

Caregivers in Ottawa (MSc completed April 2017; in collaboration with the *Social Planning Council of Ottawa*; co-supervised with Dr. Susan Braedley, School of Social Work)

Kayla Goulet, Sabrina Ladak, Sandy Lam, Beth Stanley, & Anna Tomczak, Department of Health Sciences, Carleton University. Title: *Through seniors' eyes: Age-friendly communities and quality of life* (MSc completed April 2016; in collaboration with *Riverstone Retirement Communities* and *Age-friendly Ottawa*; co-supervised with Dr. Susan Braedley, School of Social Work)

Sarah Ambrose, Jason DiMuzio, Neerija Kumar, Ariel Root, & Monica Shehata, Department of Health Sciences, Carleton University. Title: *Built Environment: Your Ottawa Neighbourhood and Determinants of Health (BEYOND-Health) Study* (MSc completed April 2016; co-supervised with Dr. Paul Villeneuve, Dept. of Health Sciences)

Lisa Carroll, Jessica Chippior, Shazya Karmali, & Deepika Sriram, Department of Health Sciences, Carleton University. Title: *Identifying support resources for informal caregivers in a rural setting* (MSc completed April 2015; in collaboration with the *Almonte General Hospital*; co-supervised with Dr. Sue Aitken, Dept. of Health Sciences)

Kathryn Crabbe, Rima Kandar, Elena Milicevec, & Owen McMorris, Department of Health Sciences, Carleton University. Title: *There's no place like Fairview: The relationship between the social identity of staff/volunteers and the social engagement of residents* (MSc completed April 2015; in collaboration with the *Almonte General Hospital*; co-supervised with Dr. Sue Aitken, Dept. of Health Sciences)

Department of Health Sciences:

Madeline Lamanna, Department of Health Sciences, Carleton University. Title: *Imagining age-friendly communities within communities: Uncovering social and physical barriers to age-friendly transportation* (MSc completed August 2020; in collaboration with Dr. Susan Braedley, School of Social Work)

Department of Neuroscience:

Mitra Rahimpour, Department of Neuroscience, Carleton University. Title: *Religion and coping with experiences of stress and trauma among members of the Bahá'í faith: Links to social identity, support, and mental health* (PhD in progress; co-supervised with Dr. Kim Matheson, Dept. of Neuroscience)

Angela Paric, Department of Neuroscience, Carleton University. Title: *Biopsychological effects of social participation on aging: The role of identity-affirming music and the arts* (PhD completed April 2019; in collaboration with *Bruyère Continuing Care*, *Riverstone Retirement Communities*, and *Artswell*; co-supervised with Dr. Hymie Anisman, Dept. of Neuroscience)

Olivia Pochopsky, Department of Neuroscience, Carleton University. Title: *Getting better with age: Single-nucleotide polymorphisms in the relations among social identity, resilience, and mental health among retirement community residents* (MSc completed Aug 2017; in collaboration with *Riverstone Retirement Communities*; co-supervised with Dr. Hymie Anisman, Dept. of

Neuroscience)

Department of Psychology:

Miki Talebi, Carleton University. Title: *Identity threat and resilience: The role of social and religious support in culturally adapting to Canadian society* (MA completed August 2009; co-supervised with Dr. Kim Matheson)

Natalia Lapshina, Carleton University. Title: *Social identity threat, personal and collective self-esteem: The role of stress appraisals and coping* (Independent Study completed August 2007; co-supervised with Dr. Kim Matheson)

Undergraduate Student Supervision (n=15)

Claire Peneycad, Department of Health Sciences, Carleton University. Title: *Medicine for the soul: Religious identity, coping, and mental health during the COVID-19 pandemic* (BHSc completed April 2022; in collaboration with Dr. Hymie Anisman, Department of Neuroscience)

Claire Peneycad, Department of Health Sciences, Carleton University. Title: *Believing in science: Linking religious beliefs and identity with vaccination intentions and trust in science during the COVID-19 pandemic* (I-CUREUS project completed April 2021; in collaboration with Dr. Hymie Anisman, Department of Neuroscience)

Tamara Slavkovska, Department of Health Sciences, Carleton University. Title: *COVID-19 and seniors at home: Addressing diverse needs, supporting seniors' service innovation* (I-CUREUS project completed April 2021; in collaboration with Dr. Susan Braedley, School of Social Work)

Mohamed Serhan, Department of Health Sciences, Carleton University. Project title: *There's no place like home: A qualitative examination of housing and health among seniors and caregivers in Ottawa* (BHSc completed May 2020; in collaboration with Dr. Susan Braedley, School of Social Work)

Bethan Wilson, Department of Health Sciences, Carleton University. Project title: *Are brains in sync? Exploring team-based inter-brain synchrony using EEG hyperscanning during different decision-making conditions* (BHSc completed August 2019; co-supervised with Dr. Kent Hecker, University of Calgary)

Rohana Hossain, Institute of Cognitive Science, Carleton University. Project title: *The leaky pipeline: Unique challenges among postdoctoral women and impacts on health* (Honours BCogSci completed August 2018)

Erin Macdonald, Department of Psychology, Carleton University. Project title: *You've got e-mail: Assessing the health benefits of social and online connections among older adults* (CUROP project completed September 2017)

Noah Latchem, Institute of Cognitive Science, Carleton University. Project title: *Music matters: Melodies to nourish the brain and mind among older adults living with dementia and their*

caregivers (Honours BCogSci completed August 2017)

Sarah Zutrauen, Department of Health Sciences, Carleton University. *Health Sciences Summer Research Internship* (Research Assistant, May-August, 2015, 2016, 2017)

Alyssa Johnston, Department of Neuroscience, Carleton University. Project title: *Healthy aging in older adults with physical disabilities: Social, psychological, biological factors* (Honours BSc completed April 2017)

Elisa Makadi, Department of Psychology, Carleton University. Project title: *Do extraverts have more (group-based) fun? Personality moderates relations between group identification and positive affect* (Honours BA completed August 2016)

Fatimah Mirza, Department of Neuroscience, Carleton University. Project title: *The role of social identities and self-efficacy on the psychological health and physiological stress responses of women with experiences of abuse* (I-CUREUS project completed April 2015; co-supervised with Dr. Hymie Anisman)

Talib Karamally, University of Ottawa. Title: *Elevating feelings of well-being: The impact of religious music and identity* (completed April 2014; co-supervised with Dr. Kim Matheson)

Astra Motilall, Carleton University. Title: *Religious identity threat: Psychological responses among minority vs. majority religious group members* (completed April 2008; co-supervised with Dr. Kim Matheson)

Catherine Brunelle, Carleton University. Title: *Humour and forgiveness: A comparison between coping mechanisms and their effects in response to an interpersonal transgression* (completed May 2005; co-supervised with Dr. Kim Matheson)

Prospectus and Theses Examining Boards ($n=13$)

Madeline Shepherd-Perkins, PhD. Department of Health Sciences, Carleton University. *Maps in action: Participatory mapping to understand socio-spatial barriers and facilitators to accessing sexual and gender-based violence support services* (in progress; supervisors: Dr. Francine Darroch & Dr. Paul Peters).

Maria Tovar, MSc. Department of Health Sciences, Carleton University. *Disparities in oral health and access to dental care in rural Ontario, Canada.* (in progress; supervisor: Dr. Paul Peters).

Sam Petrie, PhD. Department of Health Sciences, Carleton University. *Antifragile by Design: Using Antifragility as a Guiding Principle in Future Rural eHealth Implementation and Evaluation.* (completed May 2022; supervisor: Dr. Paul Peters)

Alexander Castleton, PhD. Department of Sociology and Anthropology, Carleton University. *Ageing and technology: The case of a one-tablet-per-senior program in Uruguay* (completed August 2019; supervisor: Dr. Carlos Novas)

Sanaz Hefezi, MDES. School of Industrial Design, Carleton University. *Improving adherence to*

ongoing treatments in young adults through design (completed September 2018; supervisors: Dr. Lois Frankel & Dr. Michel Rod (Sprott School of Business))

Katie MacPherson, MA. Department of Geography and Environmental Studies, Carleton University. Title: *Feminist Political Ecology of Health of South Sudanese Immigrants and Refugees in Ottawa* (completed Dec 2017; supervisor: Dr. Paul Mkandawire)

Andrea Pepe, MSc. Department of Neuroscience, Carleton University. Title: *Sex-specific responsiveness to therapeutic FGF2 administration under control conditions* (completed Dec 2017; supervisor: Dr. Natalina Salmaso)

Stephanie Simard, MSc. Department of Neuroscience, Carleton University. Title: *Cortical astroglial plasticity in response to stress and antidepressant treatment* (completed Dec 2016; supervisor: Dr. Natalina Salmaso)

Kaylyn Dixon, MSc. Department of Neuroscience, Carleton University. Title: *Cognitive, experiential and genetic contribution to depressive symptoms in male and female students with a history of concussion* (completed August 2016; supervisor: Dr. Matthew Holahan)

Kerry O'Brien, PhD. School of Psychology, Australian National University. Title: *Framing issues and identities: Aligning the content of group identity with the meaning of issues to produce normative influence* (completed July 2016; supervisor: Dr. Kenneth Mavor)

Lisa Emberly, MSc. Department of Neuroscience, Carleton University. Title: *Siblings of those with and without mental illness: Differences in life decisions and depressive symptoms* (completed May 2016; supervisor: Dr. Kim Matheson)

Isabelle Gauthier, INSC4907. Department of Environmental Science, Carleton University. Title: *How aspects of the outdoor built environments (air pollution & greenspace) affect dementia incidence in Canada* (completed Sept 2015; supervisor: Dr. Paul Villeneuve)

Corey Fee, MSc. Department of Neuroscience, Carleton University. Title: *Social identity and mental health: Group membership as a buffer for stress in university* (completed May 2015; supervisor: Dr. Hymie Anisman)

TEACHING ACTIVITIES

Courses Taught:

- *Biological and Social Fundamentals of Health* (HLTH 5402; Winter 2021*-2022; *(new course developed for Carleton University Department of Health Sciences)
- *Social Determinants of Health* (HLTH 2003; Winter 2016*-2022) *(new course developed for Carleton University Department of Health Sciences)
- *Fundamentals of Research Methods* (HLTH 5100; Fall 2015-2022)

- *Health: Science, Technology, and Policy (HSTP) MSc Collaborative Group Research Project Course Coordinator* (HLTH 5501; 2015-2017)
- *Interdisciplinary Problems in Health* (HLTH 5400; Fall 2014-2015)
- *Introduction to Statistics* (PSYC2002; Summer 2008)

Teaching Training & Engagement Attended:

- “Hyflex Café” (Carleton University, November 2021)
- “The Neuroscience of Inclusion” (Carleton University, October 2020)
- “Web Conferencing Tool: Big Blue Button” (Carleton University, March 2020)
- “*Experiential Learning Symposium*” (October 23, 2018), including:
 - “Integrating Reflection and Experiential Learning Across the Curriculum” (by Dr. Steven Teskey, Research Consultant, EAB)
 - “Technology Supported Experiential Learning” (3 faculty presentations)
 - “Case Studies” (2 faculty presentations)
- “*Certificate in University Teaching*” (by Anthony Marini, January-April 2018), including:
 - “Understanding the seven principles of good practice in undergraduate teaching”
 - “Developing a framework for teaching”
 - “Teaching methods: lecture format; small group seminar; collaborative learning; case studies; helping students to engage in the learning process”
 - “Planning assessment: approaches to assessment; role of assessment; types of assessment; building a positive assessment climate; assessment vs. grading; academic integrity”
 - “Integrating technology into the teaching process”
 - “Alternative and authentic assessment: traditional assessment; rubric development & use”
 - “Enhancing the learning environment: creating & maintaining a productive classroom climate; addressing issues of student diversity”
 - “Evaluation of teaching: student evaluation; interpretation & use of evaluations”
 - “Accessibility: student accessibility to the learning environment”
 - Micro-teaching session (during which I was filmed and received constructive feedback)
- “Getting the Most out of Groups” (by Jeffrey Erochko, Carleton University, October 2017)
- Teaching Roundtable: Community Engagement in Teaching workshop (Carleton University, January 2016)
- Teaching and Learning Symposium with Dr. Roberta Bondar (Carleton University, 2014)
- “Student Learning, Engagement and Inquiry as Documented through ePortfolios” (by Peggy Hartwick & Julie Lepine, Carleton University, 2014)
- “Education. Social. Reflective. Empathic.” (by Adrian Chan, Carleton University, 2014)
- “Reflection Journals in a Group Project Course” (by Alan Steele, Carleton University, 2014)
- “Why (and How to) Develop an Online Module within your Course” (by Daphne Uras, Carleton University, 2014)

- “Using cuLearn to Offer Virtual Laboratories in Psychology”
(by Guy Lacroix, Carleton University, 2014)
- “The Making of the MOOC: Creating Carleton’s First Massive Open Online Course”
(by Matthew Sorley & Chris Motz, Carleton University, 2014)
- New Faculty Orientation (Carleton University, Aug 2014)
- Teaching Assistant Mentor Training Workshops (Carleton University, 2007-2009)
- Certificate of Teaching Skills (Carleton University, 2007)
- Current Research and Teaching in Higher Education, PhD Course (Carleton University, 2006)
- Certificate of Teaching and Learning in Higher Education (Brock University, 2001)
- Foundations in Leadership Practicum Series (Brock University, 2001)
- Teaching Assistant Workshops (Brock University, 2000-2002)

Teaching Assistant Experience:

Carleton University:

- Department of Psychology Teaching Assistant Mentor (2007- 2008; 2008-2009)
- Abnormal Psychology (Teaching Assistant, 2006)
- Health Psychology (Teaching Assistant, 2005-2006; 2006-2007)
- Research Methods in Psychology (Teaching Assistant, 2006)
- Criminal Justice and Psychology (Teaching Assistant, 2003-2004; 2004-2005)

Brock University:

- Cognition (Seminar Instructor, 2000-2001)
- Introduction to Psychology (Seminar Instructor, 2000-2001, 2001-2002, 2002-2003)

Guest Lectures, Teaching Workshops & Presentations:

- *Department of Health Sciences, Diseases of Aging*—guest lecture “Psycho-Social Aspects of Healthy Aging” (2021, March)
- *Department of Health Sciences, Principles of Epidemiology*—guest lecture “Introduction to SPSS” (2019, March)
- *5th Annual Carleton Community Connections Event*—“Health Promotion” workshop co-facilitator (with Dr. Sonia Gulati; 2019, March)
- *Community Engaged Pedagogy Mini-Conference*—workshop presenter “The Joys and Challenges of Community-Based Research” (2016, December) *Co-presented with Dr. Adje VandeSande, *School of Social Work*
- *Department of Health Sciences, Introduction to Health Sciences*—guest lecture “The Social Determinants of Health” (2015, 2016, October)
- *Department of Health Sciences, Introduction to Research Methods*—guest lecture “Qualitative and Mixed Methods Research” (2015, October)
- *Community Engaged Pedagogy Roundtable*—panelist “Best practices in community engaged teaching and research at Carleton University” (2015, June) *Co-presented with Dr. Tracy Luciani, *Bruyère Continuing Care & Artswell*
- *School of Architecture, Advanced Building Systems*— guest lecture “Social Identity & Health: Aging, Architecture, & Atheism” (2014, September)

Guest Lectures, Workshops & Presentations before joining Carleton University Faculty:

Carleton University:

- “Psychology TA Orientation” (2007 & 2008)
- “Making the Grade: Effective Marking & Grading in Psychology” (2007 & 2008)
- “Handling Difficult Situations and Conflict with Students” (2008)
- “Writing Papers for Publication” (co-presenter Dr. Jenelle Power; 2007)
- Issues in Personality (2007)
- “Thinking about Graduate School in Psychology?” (co-presenter Dr. Lisa Nisbet; 2007)
- “Fostering Critical Thinking in Psychology Students” (2006)
- Seminar on Stress, Coping, & Well-being (2006)
- Health Psychology (2005 & 2007)

ACADEMIC SERVICE

In addition to my attendance at the Department of Health Sciences meetings, I have participated in the following committees and events as service to Carleton University:

- Faculty of Science: Junior Faculty Mentoring Program Advisory Board (April 2022-present)
- Department of Health Sciences: Graduate Committee (Jan 2022-present)
- Carleton University Biohazards Committee (2017- 2021)
- Department of Health Sciences: Undergraduate Committee (2014-2021)
- Faculty of Science: Research Facilitator Hiring Committee (Aug-Sept 2020)
- Department of Health Sciences: Representative at the Ontario Universities Fair (OUF; Toronto, Sept 2019)
- Department of Health Sciences: Chair of Tenure and Promotion Committee (2019-2020)
- Department of Health Sciences HSTP Cyclical Review Committee (2019-2020)
- Carleton University New Faculty Excellence in Teaching Award Selection Committee (2019)
- Carleton University Community Engaged Pedagogy Committee (2015-2019)
- Department of Health Sciences: Graduate Committee (2018-2019)
- Department of Health Sciences: Health, Science, Technology and Policy (HSTP) Graduate Student Selection Committee (2015-2019)
- Department of Health Sciences HSTP Capstone Project Coordinator (2015-2019)
- CHAIM Centre: ONE Health Challenge Faculty Committee (2018; 2021)
- Department of Health Sciences: Public Health Faculty Hiring Committee (2017-2018)
- Faculty of Science Tenure & Promotion Committee (2017-2018; 2020-2021)
- Department of Health Sciences: Department Administrator Hiring Committee (June 2017)
- Department of Health Sciences: Lifecourse Faculty Hiring Committee (2016-2017)
- School of Social Work: Quantitative Faculty Position Hiring Committee (2016-2017)
- Department of Health Sciences: Undergraduate Orientation (Sept 2014-2017)
- Department of Health Sciences: HSTP Orientation (Sept 2014-2017)
- Community-Engaged Research and Teaching Mini-Conference Organizing Committee (and Workshop Presenter; Dec 2016)

- Department of Health Sciences: Faculty Living Library Showcase Event (Oct 2015)
- Department of Health Sciences: OGS Selection Committee (Jan 2015)
- Department of Health Sciences: Developmental Biology Hiring Committee (2015)
- Department of Health Sciences: Unit Standards Committee Member (2014-2015)
- Faculty of Science: Science Committee on Academic Planning (SCAP) Department of Health Sciences Representative (2014-2015)
- Carleton University Psychology Department Graduate Committee Student Representative (2006-2007; 2007-2008)
- Carleton University Psychology Department Ethics Committee Student Representative (2006-2007)
- Canadian Psychological Association Undergraduate Student Representative, Brock University (2001-2002)

Volunteering & Community Service Consultations

- Faculty Consultant on SPSS, *Kivuto Solutions* (2019)
- Volunteer, *Scientists in the School* (2018)

External Grant Reviewer

- *SSHRC Insight Grant* (Feb 2020)
- *John Templeton Foundation* (Feb 2020, March 2022)
- *Ontario Women's Health Scholar Award* (Jan 2020)

Internal Grant Reviewer

- CU-Development Grant *SSHRC Explore* (November 2021)

Journal Editorial and International Advisory Board Member

Journal of Music, Health, and Well-being

Journal Reviewer

British Journal of Psychology (2)
Social Psychology
Oxford Research Encyclopedia of Politics and Religion
Review of Religious Research
Cultural Diversity and Ethnic Minority Psychology
European Journal of Social Psychology (4)
Journal of Applied Social Psychology (4)
Aging and Mental Health

British Journal of Social Psychology (3)
Technology Innovation Management Review
Group Processes and Intergroup Relations (3)
The International Journal for the Psychology of Religion (4)
Health Promotion and Chronic Disease Prevention in Canada
Identity
Psychology of Religion and Spirituality (2)
PLOS ONE
Self and Identity
Social Psychological and Personality Science
Behavioral Medicine
Journal of Experimental Social Psychology
Social Psychology Quarterly
Political Psychology (3)
Personal Relationships
Journal of Social and Clinical Psychology
Peace and Conflict: The Journal of Peace Psychology
Personality and Social Psychology Bulletin
Journal of Personality and Social Psychology
Mental Health, Religion, & Culture

MEMBERSHIP IN ACADEMIC & PROFESSIONAL SOCIETIES

- European Association of Social Psychology (EASP; 2011-present)
- Society for Personality and Social Psychology (SPSP; 2004-present)
- Social Psychology Network (SPN; 2004-present)
- Canadian Psychological Association (CPA; 2000-present)
- Canadian Association on Gerontology (CAG; 2014-present)
- Seniors Health Knowledge Network (SHKN; 2013-present)
- Canadian Knowledge Transfer and Exchange Community of Practice (KTECoP; 2012-present)

CITIZENSHIP

- Canadian