Lung Cancer Canada
Geoffrey Ogram Memorial Research Grant

September 24th, 2024

Re: Letter of Intent

This letter is being submitted as intent to apply for funding through the Geoffrey Ogram Memorial Research Grant (GOMRG) with Lung Cancer Canada for a funding amount of $25,000 from December 1, 2024-November 30, 2025, for the project ***"Trauma and Violence-Informed Harm Reduction for Francophone Minorities Who Smoke"***.

Our proposed project aims to develop a continuing medical education accredited e-learning module for primary care practitioners to addresses the urgent need for targeted, culturally tailored programs to reduce smoking rates and improve health outcomes among Francophones. **Tailored programs focused on French-language smoking cessation programs, accessible cancer screening, and education can address cultural and systemic barriers, contributing to reduced lung cancer incidence and mortality.**

Smoking is the leading cause of lung cancer, responsible for 72% of all lung cancer cases in Canada. Francophone communities across Canada face significant health inequities related to smoking and lung cancer, driven by socioeconomic, cultural, and systemic factors, and in Ontario, Francophones have higher smoking rates, increasing lung cancer risks.

By offering a continuing medical education accredited e-learning module to primary care learners in both English and French and incorporating culturally relevant materials that reflect the needs and priorities of patients, we are equipping healthcare providers to engage in safer, more effective conversations about smoking cessation and lung cancer screening at the point of care. **This e-learning module will equip providers to deliver safe, equitable, effective and timely harm reduction to Francophone individuals who smoke contributing to two pan-Canadian priorities: (i) lowering lung cancer inequities, and (ii) delivering linguistically accessible services for Official Language Minorities in Canada.** This approach enhances the delivery of equity-oriented harm reduction enabling patients across Canada's bilingual healthcare system to achieve better health outcomes.

In particular, **funding from the GOMRG will support the aim to conduct user testing of the French language e-learning module to optimize the intervention**. Following user testing, we plan to co-implement and co-evaluate the e-learning module across Canada. This work is an essential next step and will support national priorities in lung health and national policies that mandate equal care for Francophone Canadians.

Ambreen Sayani MD PhD
Scientist at the Women's College Research and Innovation Institute
Assistant Professor (status), Dalla Lana School of Public Health, University of Toronto
Principal Investigator for the Improving Cancer Care Equity (ICCE) Lab
Health Equity Expert Advisor to the Canadian Partnership Against Cancer

Summary of Proposed Research

1. BACKGROUND: Smoking is the leading cause of lung cancer, responsible for 72% of all lung cancer cases in Canada (1). While around 14% of the population smokes, rates are significantly higher among structurally marginalized groups, such as Indigenous communities, low-income individuals, and those experiencing homelessness (2,3,4). Inequities in smoking rates contribute to a greater risk of lung cancer and mortality, with Inuit individuals and low-income populations being twice as likely to be diagnosed with lung cancer compared to the general population (2). Systemic biases, stigmatizing clinical encounters and a lack of responsive primary-care create further barriers to smoking cessation and lung cancer screening, contributing to widened inequities (5,6). ***To deliver safe, equitable, effective and timely harm reduction for people who smoke***, ***we need strengths-based smoking cessation and early detection of curable lung cancer through accessible lung cancer screening.*** Embedding principles of Trauma- and Violence-Informed Care, which is an approach that is: (i) cognizant of the social and cultural traumas driving higher smoking rates, (ii) responsive to the impact of systemic violence on peoples' choices, and (iii) fosters trust and collaboration for strengths-based decision-making, can promote high quality harm reduction and improve health outcomes for people who smoke (7).

2. PROJECT RATIONALE: Francophone communities in Ontario and across Canada face significant health inequities related to smoking and lung cancer, driven by socioeconomic, cultural, and systemic factors (8). In Ontario, Francophones have higher smoking rates and are more likely to begin smoking at a younger age (9), increasing lung cancer risks. Nationally, Francophone communities outside Quebec suffer from poor access to French-language health services, particularly in rural areas, which limits early detection and prevention efforts (10). The lack of coordinated policies across provinces exacerbates these inequities and efforts to improve culturally and linguistically accessible services for 8 million Francophone Canadians as currently mandated by the Official Languages Act and the French Language Services Act (11). ***Our proposed project addresses the urgent need for targeted, culturally tailored interventions to reduce smoking rates and improve health outcomes among Francophones.*** Tailored interventions focused on French-language smoking cessation programs, accessible cancer screening, and education can address cultural and systemic barriers, contributing to reduced lung cancer incidence and mortality.

3. WORK TO DATE: With funding from the Canadian Institutes of Health Research, we have ***co-designed*** (Grant TLS-170674) and are currently ***co-implementing/co-evaluating*** (Grant TLP-185094) a Continuing Medical Education accredited e-learning module for primary care providers, titled *Creating Safe Connections: Practical Strategies to Support Lung Cancer Screening*. This English-language module aims to enhance primary care providers' understanding of trauma's impact on smoking addiction and its health effects, such as stigma, discrimination, and barriers to care (e.g., racism, ableism, and classism). The module builds Trauma- and Violence-Informed Care skills and competencies related to strengths-based smoking cessation. To address inequities for Francophone Official Language Minority Communities, we have ***co-designed*** (funded by the EMPOWER Award: OSSU E7) a culturally relevant, French-language version of the module. This ***French-language module will be ready for user testing by December 2024, for which we are seeking GOMRG funding.*** As a French-language module, user testing requires specific and dedicated resources, including the engagement of French-speaking patient partners, primary care providers, and researchers for tasks such as communications, interviews, data analysis and dissemination. ***This work is an essential next step, requires funding, and will support national priorities in lung health*** *(2)* ***and national policies that mandate equal care for Francophone Canadians.***

4. STUDY AIM & OBJECTIVES: To provide strengths-based smoking cessation and early detection of curable lung cancer through accessible lung cancer screening, we will conduct user testing of a targeted, culturally tailored, evidence-based educational intervention (Francophone version of Creating Safe Connections) that attends to the needs and priorities of Francophone minority communities in Canada by:

i. **Testing the design of the interaction** of the module with key francophone learners;
ii. **Testing the design of the instruction** of the module with key francophone learners;

iii. **Optimizing the intervention** by making modifications as needed based on learner feedback.

5. STUDY GOVERNANCE AND PATIENT ENGAGEMENT PLAN: This is an equity-oriented, patient-partnered, interdisciplinary, implementation science study guided by the Engaging with Purpose Patient Engagement Framework (12). Using an Integrated Knowledge Translation approach, we are engaged with an interdisciplinary team of patient partners, healthcare providers, researchers, and knowledge users to steer project design, analysis, and dissemination (Table 1, Appendix). The principal knowledge user on the grant, Shari Dworkin, (Director, Screening at Canadian Partnership Against Cancer) plays a leadership role in the implementation of lung screening across Canadian provinces and territories ensuring direct alignment of study outputs with the jurisdictional needs of organized lung screening programs across Canada increasing sustainability and impact from the module. Six patient partners with diverse and intersectional lived experiences across smoking substance use, homelessness, poverty, disability, refugee status and lung cancer are guiding the study. One patient partner is fluent in French, and we will engage 1-2 additional Francophone patient partners to support our work. Patient partners receive compensation at $30 per hour and digital devices to facilitate virtual participation as needed. Patient partners meet bimonthly for 2 hours to guide study direction. The full team convenes twice per year.

6. METHODS: Methods may evolve as directed by the study governance structure. (Figure 1, Appendix).

Design: Pragmatic, usability testing study following principles of user-centric design.

Participants and recruitment: French-speaking primary care providers (physicians and nurses, n=10-15) will be purposively sampled through organizations including FrancoMed, Centre francophone du Grand Toronto, and Réseau du mieux-être francophone du Nord de l'Ontario, to test module usability.

Data collection: A survey tool, using Qualtrics Research Suite™ 5 survey software, (*available in English: https://uwo.eu.qualtrics.com/jfe/form/SV_3yD9iAs1vNuSgrI*) will be translated into French and adapted for cultural relevance. The survey will include *quantitative* measures to assess the following:

- Design of module interaction: usability of module on different devices, navigation of the course
- Design of module instruction: format and clarity of course content (e.g., course videos), usefulness of course components (e.g., downloadable notebook); impact of learning (i.e., knowledge checks)

Each quantitative measure was supplemented with a *qualitative measure* through open-text boxes in surveys, to assess the principal strengths of the module (including what worked well) and areas for improvement.

d. Data analysis: *Quantitative* data will be analyzed using descriptive statistics in Microsoft Excel. *Qualitative* data will be analyzed using descriptive content analysis in NVivo 14 (13).

e. Intervention optimization: Quantitative and qualitative data will be consolidated into lay-language recommendations for module optimization and will be presented back to the full interdisciplinary team. The team will discuss the relevance and feasibility of recommendations and create an action plan to adapt the design and content of the French e-learning module based on user feedback.

7. KNOWLEDGE MOBILIZATION PLAN: We are actively collaborating with researchers, patient partners, and stakeholders throughout the research process to ensure findings are relevant, practical, and impactful in real-world settings using a process of integrated Knowledge Translation. **For end of grant knowledge mobilization we will** promote awareness and reach of the module by prioritizing publishing and presenting. All national and international presentations will be patient-partnered. We will publish in high-impact journals and present at pan-Canadian (Applied Research in Cancer Control) and international conferences (Cancer and Primary Care Research International, World Conference Lung Cancer).

8. RESEARCH TEAM: We are an interdisciplinary team including knowledge users, healthcare providers, and researchers (Table 1, Appendix). Principle investigator, Ambreen Sayani, is a physician and social scientist specializing in health equity, patient engagement, and cancer care. Sayani is Health Equity Advisor to CPAC, an Early Career Researcher and CIHR Transition-to-Leadership Stream Awardee, and has received numerous leadership, innovation, quality, education, and research awards. Study trainee, Ladak, will build capacity to lead equity-promoting, patient-engaged research through this project.

Impact Statement

Smoking is the leading cause of lung cancer, responsible for 72% of all lung cancer cases in Canada. Francophone communities across Canada face significant health inequities related to smoking and lung cancer, driven by socioeconomic, cultural, and systemic factors, and in Ontario, Francophones have higher smoking rates, increasing lung cancer risks. The lack of coordinated policies across provinces exacerbates these inequities and efforts to improve culturally and linguistically accessible services. By offering the CME accredited e-learning module to primary care learners in both English and French and incorporating culturally relevant materials that reflect the needs and priorities of patients, we are equipping healthcare providers to engage in safer, more effective conversations about smoking cessation and lung cancer screening at the point of care. This e-learning module will equip providers to deliver safe, equitable, effective and timely harm reduction to Francophone individuals who smoke contributing to two pan-Canadian priorities: (i) lowering lung cancer inequities, and (ii) delivering linguistically accessible services for Official Language Minorities in Canada. This approach enhances the delivery of equity-oriented harm reduction enabling patients across Canada's bilingual healthcare system to achieve better health outcomes.

Public, Non-Scientific Summary

Smoking is the leading cause of lung cancer, responsible for 72% of all lung cancer cases in Canada. While around 14% of the population smokes, rates are significantly higher among structurally marginalized groups, such as Indigenous communities, low-income individuals, and those experiencing homelessness. Inequities in smoking rates contribute to a greater risk of lung cancer and mortality, with Inuit individuals and low-income populations being twice as likely to be diagnosed with lung cancer compared to the general population. Systemic biases, stigmatizing clinical encounters and a lack of responsive primary-care create further barriers to smoking cessation and lung cancer screening, contributing to widened inequities.

Francophone communities in Canada experience disproportionately high rates of smoking substance use and lung cancer, especially in rural and marginalized Francophone populations. These inequities are amplified by socio-economic inequalities, cultural factors and systemic exclusion. *Our proposed project addresses the urgent need for targeted, culturally tailored programs to reduce smoking rates and improve health outcomes among Francophones.* Tailored programs focused on French-language smoking cessation programs, accessible cancer screening, and education can address cultural and systemic barriers, contributing to reduced lung cancer incidence and mortality.

Using a harm reduction approach, our pan-Canadian, patient-partnered, interdisciplinary team aims to address these inequities by implementing a targeted, culturally tailored, educational e-learning module for primary care providers, called "Francophone – Creating Safe Connections". The first step to implementation is testing the module with intended users (primary care providers). In this project, we will carry out user testing with primary care providers across Canada to ensure the module is user friendly and understandable for the target population. Based on feedback we receive from participants; we will update and modify the design and content of the module as needed. This e-learning module will allow providers to deliver safe, equitable, effective and timely harm reduction to Francophone individuals who smoke contributing to two national priorities: (i) lowering lung cancer inequities, and (ii) delivering linguistically accessible services for Official Language Minorities in Canada.

Budget

Expense Category	Budget
Personnel Services	
Honorarium for lung Screening Patient Partners (French-speaking) ($30/hr) X (2 patient partners) X (4 hours/month) X 12 months per year - Patient partner should be interested in the project and/or have lived experience of smoking, lung cancer or lung cancer screening, or any social barriers to accessing care - English speaking patient partners are already funded	$2880
French speaking Research Assistant working 0.2 FTE @ $30/hr plus 30% benefits - Research Assistant should have an undergraduate or masters degree in a relevant field - To support already funded Research Coordinator (Zeenat Ladak)	$16,224
French Translation by CISOC Interpretation Services - Usability testing survey & consent documents - Survey responses and findings	$1500
Professional instructional design of e-module – 50 hours @ $51/hr - For French language module adaptations following usability testing	$2,550
Research Activities	
Honorarium for usability testing of module ($100 gift card) X approximately 15 French-speaking providers	$1500
Total Budget	**$24,654**

Appendix

References

1. Canadian Cancer Society. New report released by the Canadian Cancer Society reveals lung cancer death rates declining faster than any other cancer type in Canada. 2023.
2. Canadian Partnership Against Cancer. Lung cancer and equity: a focus on income and geography. 2020.
3. Government of Canada. Canadian Tobacco and Nicotine Survey (CTNS): summary of results for 2022. 2022.
4. Government of Canada. Canadian Tobacco, Alcohol and Drugs Survey (CTADS): summary of results for 2017. 2017.
5. Sayani A, et al. Perspectives of family physicians towards access to lung cancer screening for individuals living with low income–a qualitative study. BMC Family Practice. 2021;22:1-9.
6. National Lung Screening Trial Research Team. Lung cancer incidence and mortality with extended follow-up in the National Lung Screening Trial. Journal of Thoracic Oncology. 2019;14(10):1732-42.
7. Wathen CN, et al. Impacts of trauma-and violence-informed care education: A mixed method follow-up evaluation with health & social service professionals. Public health nursing. 2021;38(4):645-54.
8. Alimezelli HT, et al. Lost in policy translation: Canadian minority Francophones and health disparities. Canadian Public Policy. 2015;S44-S52.
9. DeWit D J & Beneteau B. Predictors of the prevalence of tobacco use among Francophones and Anglophones in the province of Ontario. Health Education Research. 1999;14(2), 209-223.
10. Pelekanakis A, et al. Initiation or cessation: what keeps the prevalence of smoking higher in Quebec than in the rest of Canada?. Health Promot Chronic Dis Prev Can. 2021;41(10):306-314.
11. Government of Canada. English and French: Towards a substantive equality of official languages in Canada. 2021.
12. Dunstan B, et al. #HowNotToDoPatientEngagement: the engaging with purpose patient engagement framework based on a twitter analysis of community perspectives on patient engagement. Res Involv Engagem. 2023;9:119.
13. Elo, S., & Kyngäs, H. The qualitative content analysis process. *Journal of advanced nursing*, 2008;*62*(1), 107-115.

Figure 1. Work Plan of Anticipated Deliverables

	Year 2025 (12 Months Total)											
Deliverables	1	2	3	4	5	6	7	8	9	10	11	12
Recruit participants												
Data collection: survey												
Data analysis												
Intervention optimization												
Manuscript												

Table 1. Project Team Members

Role; Discipline	Name, Credentials	Affiliation(s)
Principal Investigator; Researcher	Ambreen Sayani, MD PhD	WCH Academics, University of Toronto, Canadian Partnership Against Cancer
Research Coordinator; Researcher	Zeenat Ladak, MSc PhD Candidate	WCH Academics, University of Toronto
Co-Applicant; Researcher & Healthcare Provider	Aisha Lofters, MD PhD CCFP	WCH Academics, WCH Peter Gilgan Centre for Women's Cancers, University of Toronto
Co-Applicant; Patient Partner	Angus Pratt	N/A
Co-Applicant; Knowledge user	Annemarie Edwards	Canadian Cancer Society
Co-Applicant; Patient Partner	Bikila Amenu	N/A
Co-Applicant; Researcher & Healthcare Provider	Christian Finley, MD MPH FRCS(C)	Ontario Health, St. Joseph's Healthcare Hamilton, McMaster University
Co-Applicant; Researcher & Healthcare Provider	Gary Bloch, MD CCFP FCFP	St. Michael's Hospital, Inner City Health Associates & Health Providers Against Poverty
Co-Applicant; Patient Partner	Howard Freedman	N/A
Co-Applicant; Knowledge user	Jackie Manthorne	Canadian Cancer Survivor Network
Co-Applicant; Researcher	Janet Parsons PT MSc PhD	University of Toronto
Co-Applicant; Patient Partner	Jean-Claude Camus	N/A
Co-Applicant; Researcher	Joyce Nyhof-Young, PhD	WCH Academics; St. Michael's Hospital, University of Toronto
Co-Applicant; Researcher	Salva Niwe	WCH Academics, University of Waterloo
Co-Applicant; Knowledge user	Shari Dworkin	Canadian Partnership Against Cancer
Co-Applicant; Patient Partner	Tara Jeji	N/A
Co-Applicant; Healthcare Provider	Tatsiana Demarco, MD	University of Toronto, FrancoMed
Co-Applicant; Healthcare Provider	Vanessa Redditt MD CCFP	WCH Crossroads Clinic, University of Toronto
Co-Applicant; Patient Partner	Vinesha Ramasamy	N/A