



Dr Laura Anderson, McMaster University

Promoting healthy behaviours to prevent obesity in young adults

Dr Laura Anderson is testing a nurse-led motivational program to help young adults maintain a healthy body weight, reducing their cancer risk.

Obesity affects over one-quarter of Canadian adults and increases the risk of several types of cancer, including colon, breast and pancreatic cancers. It is a complex medical condition and treatment can be challenging. Preventing obesity through behavioural changes is key to reducing the incidence of obesity-related cancers. Young adulthood is a critical period for the development of obesity, and tailored interventions to prevent obesity in this population are needed. With Canadian Cancer Society funding, Dr Anderson will lead a team to work with a group of university students between the ages of 18 and 29 in Hamilton, Ontario to see whether an online motivational interview program can help the students maintain a healthy body weight. The program will be led by nurses and will provide educational materials to promote healthy behaviours. Study participants will be split into 2 groups, with half receiving the nurse-led program and others only getting the educational materials to see if the motivational interviewing combined with education is more effective than just the educational materials alone. If successful, this work will lead to larger studies to help more people to reduce their cancer risk and will help create policies to reduce obesity-linked cancers.

Dr Philip Awadalla, Ontario Institute for Cancer Research

Identifying people at high risk of developing breast cancer

Dr Philip Awadalla is leading a project to use an innovative molecular test to identify people at high risk of developing breast cancer.

Breast cancer is the most common type of cancer in women in Canada, and more widely available tools are needed to identify people who are at high-risk of developing this disease. Canadian Cancer Society-funded researcher Dr Awadalla hopes to change this by using an innovative blood test to look at fragments of DNA released from dead or dying cells that float freely in the bloodstream. This technique is already used by some researchers to detect the presence tumours at a very early stage of development, but Dr Awadalla will use this technology differently. He and his team will test whether these floating DNA fragments reveal early molecular changes that sometimes happen years before a tumour starts to grow. If the technique works, a simple blood test could help identify people at high risk of developing breast cancer. Once these high-risk people are identified, the researchers will then attempt to lower their risk via lifestyle and behaviour modifications, such as adopting a healthy body diet and reducing alcohol intake. If successful, this new technique could help reduce the number of people in Canada diagnosed with breast cancer each year.

Dr Parveen Bhatti, BC Cancer Agency (Vancouver)

Can using melatonin supplements help prevent cancer in night shift workers?

Dr Parveen Bhatti is investigating whether over-the-counter melatonin supplements can improve sleep quality and prevent cancer in people who work at night.

People who work night shifts have an increased risk of multiple types of cancer, and almost 2 million Canadians do this type of work. Previous research has shown that poor sleep quality



and low levels of a hormone called melatonin in night shift workers may prevent cells from repairing genetic damage properly, leading to an increased risk of cancer. Melatonin is a widely available supplement that does not require a prescription in Canada. With support from the Canadian Cancer Society, Dr Bhatti plans to test whether giving night shift workers melatonin before daytime sleep improves sleep quality. Initially, 30 people who work night shifts will be split into 2 groups and given either melatonin supplements or a placebo without knowing which they are getting. The study will last for 4 weeks, and the researchers will ask participants about their sleep quality and test their urine for a chemical that indicates how well their bodies are repairing genetic damage to their cells. If proven to be beneficial, the researchers estimate that melatonin supplements for all night shift workers in Canada could help prevent some cancers.

Dr Darren Brenner, University of Calgary

Using medication to prevent colorectal cancers in Canada.

Dr Darren Brenner will run a pilot study to offer a preventative drug treatment to people at high risk of developing colorectal cancer.

Colorectal cancer is the second leading cause of death from cancer in Canada. As with many cancer types, the risk of developing colorectal cancer can be significantly reduced by adapting lifestyle behaviours, including physical activity, diet, alcohol use and smoking. However, sustained positive changes to these behaviours are difficult for people to achieve and new preventative strategies are needed to reduce risk. There are several potential substances already under investigation which might be able to reduce the risk of colorectal cancer, and Canadian Cancer Society-funded researcher Dr Brenner is developing a platform to test these substances. Dr Brenner and his team will start with a preliminary study in people in Alberta who have been identified as being at high risk of colorectal cancer. The participants will be offered a 3-month prescription for low-dose aspirin. Researchers will analyse how many people want to take the aspirin, whether they regularly do so and if there are any side-effects reported by the participants. They will also interview them for their thoughts about the study and being given a preventative drug. If successful, this project could lead to other, bigger scale studies on other substances which can be given to people to prevent colorectal cancer. The researchers hope that these studies will lead to fewer people being diagnosed with colorectal cancer and therefore fewer deaths from the disease.

Dr Jennifer Brunet, University of Ottawa

Exercise as a preventative tool for people at high risk for developing breast cancer

Dr Jennifer Brunet is investigating whether people at a higher risk of breast cancer can increase their exercise with the help of an online motivational package.

Exercise can lower the risk of breast cancer in people known to be at higher risk of developing it due to genetic factors or family history. But most women don't get enough exercise. With funding from the Canadian Cancer Society, Dr Brunet will lead research to design and implement an online motivational package for women at a greater than average risk of breast cancer. The study will find out if women who are given a recommendation to exercise more, combined with the motivational program, can increase their amount of exercise, reduce their body-mass-index (BMI) and improve their quality of life. The online motivational package will



include a 1-hour education session, a diary to track progress and tools to help change behaviours. 310 women at high risk of breast cancer in Ottawa will take part in the study. Participants will be asked about their quality of life and BMI before the study starts and after 6 weeks to see whether the online package has helped increase their exercise. The success of this program would enable more people at risk of breast cancer to reduce their risk by using the online motivational tool.

Dr Adam Cole, University of Ontario Institute of Technology

A vaping prevention program for high school students

Dr Adam Cole will test whether a U.S. vaping prevention program for schools is effective in Canada.

Vaping has increased substantially among youth in Canada, with data from 2019 showing that 1 in 4 high school students report vaping in the last 30 days. Youth who vape may be more likely to progress to cigarette smoking, increasing their chance of developing several types of cancer. Canadian Cancer Society-funded researcher Dr Cole is leading a team to examine whether a vaping prevention program for schools would help high schoolers in Canada. The team will initially work with 6 high schools in Ontario to test the "Catch My Breath" vaping prevention program that has been shown to be effective in the United States. The researchers want to find out whether it will be similarly effective in preventing Canadian students from vaping. They will seek feedback from students and educators about the program and will evaluate changes in attitude and knowledge about vaping among students after the program. If the program is shown to be successful in these schools, the researchers will recommend that it is implemented in more schools across Canada to help prevent students vaping, reducing the negative health effects from both vaping and potential future tobacco use.

Dr Anna Gagliardi, The Toronto Hospital (General Division) – UHN

Increasing physical activity levels in women who have immigrated to Canada

Dr Anna Gagliardi is designing a culturally relevant program to help women who have immigrated to Canada increase their physical activity levels and reduce their risk of several types of cancer.

Physical activity can help prevent several types of cancer, but women who have immigrated to Canada often have low physical activity rates for both cultural reasons and lack of time. Very often, people who are immigrants are more receptive to culturally relevant education sessions hosted by community agencies than they are to family doctors, media or the internet, and it is predicted that by 2036, almost half of Canada's population will be immigrants. With support from the Canadian Cancer Society, Dr Gagliardi will work with women of Chinese, South Asian and Filipino origin and community agencies to design an educational session promoting physical activity. The researchers will interview the women and community agency staff to help design the session, before testing the session – which will be tailored to gender and culture – with 30 women who have immigrated to Canada. The women will be surveyed before and some time after the session to see whether it helped them increase their physical activity levels and to ask for feedback. If successful, this program could be scaled up and adapted to help millions of people in Canada reduce their cancer risk by increasing their physical activity levels.



Dr Gary Groot, University of Saskatchewan

Preventing cancer in Métis people in Saskatchewan

Dr Gary Groot is working with Métis people to develop a framework to promote healthy behaviours and reduce cancer risk.

Métis people in Canada are more likely to develop some types of cancer and are also more likely to engage in activities that can increase their risk of cancer. A local Métis group in northern Saskatchewan has developed a successful, culturally relevant cancer control program. Now, with Canadian Cancer Society funding, Dr. Groot and his team are working with Métis community members, including Elders, cancer survivors and local leaders, as well as with the Saskatchewan Cancer Agency and Métis Nation-Saskatchewan to understand the roots of the northern community's success. Part of this work will include interviews and storytelling sessions with Elders, traditional knowledge keepers and other community leaders to gain a greater understanding of the traditional customs and ways of knowing and being that underlie successful health promotion for Métis people. From this research, the team will then develop a framework that can be used to promote healthy behaviours and reduce cancer risk in other Métis communities in Saskatchewan in an accessible, sustainable and culturally relevant way.

Dr Gillian Hanley, University of British Columbia

Preventing ovarian cancer by removing the fallopian tubes of people who have finished childbearing

Dr Gillian Hanley is investigating whether fallopian tube removal during colorectal surgery is safe and cost-effective.

Ovarian cancer was the cause of about 1,950 deaths in Canada in 2020. Despite this, there is no routine effective screening method to detect ovarian cancer and no significant treatment advances have been made in the past 30 years. People in British Columbia who have had their fallopian tubes removed during gynecological surgeries such as hysterectomies have not reported a single case of high-grade ovarian cancer. This procedure has proven to be safe and effective. With funding from the Canadian Cancer Society, Dr Hanley will work with surgeons in Vancouver to offer removal of fallopian tubes to people who have finished childbearing and who are already undergoing colorectal surgery to remove growths. The researchers will evaluate whether the operation is successful in people who do opt to have their fallopian tubes removed during colorectal surgery and if this causes any extra complications. They will also determine how much extra time this optional procedure takes and whether the procedure is cost-effective, with the aim of offering it to more people undergoing colorectal surgery. If successful and widely implemented, this procedure will prevent ovarian cancer in more people.

Dr Amy Kirkham, University of Toronto

Reducing breast cancer risk by only eating at certain times during the day



Dr Amy Kirkham will test whether asking people to restrict their eating to specific times of the day reduces their risk of developing breast cancer by helping them control their weight and blood sugar.

For some people, cancer could be prevented by changes eating well, maintaining a healthy body weight and controlling blood sugar levels. But maintaining healthy behaviours to improve health can be challenging, and new strategies to help people do this are urgently needed. With funding from the Canadian Cancer Society, Dr Kirkham is leading a team to investigate whether only eating during part of the day could help people manage their weight and improve their blood sugar control. The researchers will recruit women who are over the age of 50 and at risk of breast cancer and ask them to restrict their eating to a specific time window every day for 4 months. Samples will be collected from the participants, and they will measure their blood sugar and answer questions about their health, behaviours and experiences with the program. If successful, the study will provide an approach to help people manage their weight. Researchers hope to expand the program throughout Canada to help more people reduce their risk of developing breast cancer.

Dr Marie Laberge, CHU Sainte-Justine Research Centre

Reducing occupational carcinogen exposures for students undertaking trade internships

Dr Marie Laberge is working with students and teachers to design a cancer prevention program for teenagers undertaking training in trades in Québec.

Around 13% of teenagers in Québec are referred to a work-oriented training program to give them experience and training in trades. Included in the program are work placements, and many of these placements expose the students to carcinogens. The risk of occupational cancers is higher if people are exposed to carcinogens early on in their careers. Canadian Cancer Society-funded researcher Dr Laberge will lead a team of researchers to develop a cancer prevention program tailored to students and teachers involved in Québec's work-oriented training program. First, the researchers will gather data on the participants in the trade program, their exposure to carcinogens, what these carcinogens are, and their working conditions. This will involve interviews and questionnaires with around 100 students and 10-15 teachers from 5 schools situated throughout the province. Based on this and with input from students and teachers, a new cancer prevention program will be designed to reduce cancer risk in this population. This could impact between 10,000 and 15,000 secondary school students in Québec each year and will ensure that the students can develop useful professional skills, while reducing their cancer risk via workplace exposures.

Dr Bernard Le Foll, Centre for Addiction and Mental Health

Helping people with alcohol use disorder quit smoking

Dr Bernard Le Foll is investigating whether a new medication approved in other parts of the world could help people in Canada with alcohol use disorder quit smoking and reduce their alcohol intake

Smoking is linked to several types of cancer, including lung, breast, colorectal and prostate cancers, and many people who try to quit are unsuccessful. Medications designed to help people quit smoking often work in the short-term, but many people start smoking again. People who smoke and have an alcohol use disorder have an even higher risk of developing



cancer. With support from the Canadian Cancer Society, Dr Le Foll and his research team will investigate whether a medication called cytosine can help people with alcohol use disorder stop smoking. Cytosine is used in many other parts of the world to help people quit smoking. While it is not yet approved in Canada, there is some evidence to show that this medication could also help people reduce their alcohol intake. Forty people will participate in Dr Le Foll's study. Half of the participants will be given cystine and half will be given a placebo, without knowing which one they are getting. The researchers will then investigate whether cytosine helps people stop smoking initially and whether this is sustainable. Participants will also be asked about their alcohol consumption. If successful, the researchers hope to demonstrate that that cytosine can help people with alcohol use disorder quit smoking and reduce their cancer risk.

Dr Jonathan Little, University of British Columbia

Can "exercise snacks" help prevent cancer?

Dr Jonathan Little is evaluating whether short, intense bursts of exercise improve fitness and reduce cancer risk in low-activity adults.

Although physical activity is known to reduce the risk of several types of cancer, around 4 in 5 Canadian adults fail to meet recommended physical activity guidelines. The main reasons for this are lack of time, low motivation and insufficient access to facilities. With Canadian Cancer Society funding, Dr Little and his team have previously shown that short bursts of high-intensity physical exercise of less than 1 minute can improve the fitness of inactive adults when done 3-4 times daily. These "exercise snacks" can include bouts of climbing stairs or cycling. Now, the team plans to test the program in 40 inactive adults and compare their results to the results of 40 people prescribed a gentle stretching program instead. The fitness of the study participants will be tested before they begin their exercise program, which will use an online platform to guide them for 12 weeks. At the end of the 12 weeks, all participants will have their fitness tested again to look for any improvement. If exercise snacks are proven to be beneficial to overall fitness, the researchers hope that they can be used as a new way for people to improve their physical fitness and reduce their cancer risk, even if they don't have much spare time.

Dr Sam Liu, University of Victoria

Using a digital health program to help families prevent cancer

Dr Sam Liu will design and test a smart phone app to help families increase their physical activity levels and reduce their risk of cancer.

Around half of all cancers can be prevented through lifestyle changes, including adequate amounts of physical activity. Despite this, only half of Canadians get enough physical activity. Canadian Cancer Society-funded researcher Dr Liu will work with Canadian families to build a digital health tool for smart phones, which aims to help people reduce their risk of cancer by promoting personalised healthy lifestyle changes. The first part of the project will involve the research team adapting previous family-based physical activity promotion tools, before asking several families for their feedback. The app-based program will then be tested on families with children between 6 and 12 years old who are not getting the recommended amount of physical activity. The researchers are hoping to learn whether the families like the program,



whether it is easy to use and whether the app helps parents increase their children's physical activity. If successful, the use of the app will be further tested in a larger trial that could include the promotion of other lifestyle changes to prevent cancer, such as quitting smoking and eating well.

Dr Ivan Litvinov, McGill University

Preventing skin cancer in young people

Dr Ivan Litvinov is gaining important insights into how to promote sun safety to help young people reduce their skin cancer risk.

Cases of skin cancer are growing in Canada and many people in Canada are either unaware of, or apathetic toward sun safety measures that could dramatically reduce their risk of developing skin cancer. Previous sun safety promotion campaigns have not had a significant impact on reducing cases of skin cancer, and new strategies are urgently needed. With support from the Canadian Cancer Society, Dr Litvinov will lead a team to understand what influences risk of skin cancer in people in different communities, first focusing on young adults in Atlantic Canada and Quebec. The researchers will issue questionnaires to the study participants to assess their risk and current sun protective behaviours and determine their exposure based on where they live by calculating the average amount of sun, rain and the temperature. Based on this, they will use focus groups and interviews to develop personalised sun protection recommendations based on a variety of factors. By understanding how all of these factors affect sun safety and skin cancer rates in different communities, the researchers hope this work will lead to the development of new targeted programs to help young adults reduce their skin cancer risk.

Dr Aisha Lofters, Women's College Hospital

Helping people with low incomes reduce their cancer risk

Dr Aisha Lofters will work with younger adults with low incomes to help them reduce their risk of cancer and chronic diseases by helping them change their lifestyles.

Nearly half of all people in Canada will develop cancer at some point in their lives, but around 40% of these cases are preventable with lifestyle and behavioural changes. The number of people affected by chronic diseases is rising in Canada, and many of the lifestyle and behavioural modifications that reduce cancer risk can also help prevent other illnesses. People with lower incomes are more likely to develop multiple chronic conditions earlier and are also more likely to smoke, not eat as well, and be physically inactive. With funding from the Canadian Cancer Society, Dr Lofters will work with young adults between the ages of 18 and 39 who have low incomes to test a preventative health program. The project builds on the previous success of this program in older adults and will involve meeting with a prevention practitioner to improve prevention and screening activities. The researchers will check in 6 months later to determine if the participant has made positive changes. If successful, this project can be scaled up to help more people in Canada reduce their chance of developing cancer and chronic diseases.



Dr Patrick McGrath, IWK-Grace Health Centre

Protecting volunteer firefighters from cancer causing chemicals

Dr Patrick McGrath is leading the development and evaluation of an education program to help volunteer firefighters reduce their exposure to cancer-causing chemicals.

Firefighters are frequently exposed to products of combustion, including cancer-causing chemicals that increase their risk of developing cancer. More than 85% of Canada's firefighters are volunteers living in rural and remote areas of Canada who may not receive adequate training about how to minimise their exposure to these dangerous chemicals, both when firefighting and from contaminated equipment afterwards. With funding from the Canadian Cancer Society, Dr McGrath is working with the Canadian Association of Fire Chiefs and the Canadian Volunteer Fire Services Association to design and test an education initiative to help reduce exposure to these cancer-causing chemicals in volunteer firefighters. The program will be designed with input from 40 firefighters and fire chiefs and will include a video course, email and text messages containing health information as well as a chat room for volunteer firefighters to exchange ideas and encourage mutual support. The program will be evaluated in up to 800 people with tailored efforts made to ensure the recruitment of women and BIPOC. If successful, this project will enable volunteer firefighters to reduce their exposure to cancer-causing chemicals and reduce their personal cancer risk.

Dr Nadia Minian, Centre for Addiction and Mental Health

A chatbot to help people quit smoking

Dr Nadia Minian will design a chatbot to help people adhere to a medication program to help them quit smoking.

Tobacco smoking causes one-third of all cancer deaths in Canada, and quitting reduces the risk of developing several types of cancer and other serious diseases. Despite this, many Canadians struggle to stop smoking and new strategies to help them do this are needed. Varenicline is the most effective smoking cessation medication, but up to half of the people taking it don't adhere to the standard 3-month program. Canadian Cancer Society-funded researcher Dr Minian will lead a team to create a chatbot to help people adhere to the program and increase their chance of successfully quitting. The chatbot will track medication regimens and offer reminders, provide information about side effects and engage in motivating conversations with people trying to quit. The researcher will complete a pilot study to test the chatbot and will ask study participants for feedback and information on whether it helped them adhere to their varenicline dosing regimen. If successful, this chatbot will help people adhere to their varenicline medication program, increasing the chances that they quit smoking, reducing their risk of cancers and other smoking-related diseases.

Dr Hassan Mir, University of Ottawa Heart Institute

A smartphone app to motivate smokers to quit

Dr Hassan Mir is testing an app that motivates people who were not considering quitting, to attempt to quit smoking tobacco.

Smoking cigarettes causes several forms of cancer as well as other serious lung and heart conditions. Despite this, the majority of smokers report that they are not ready to try to quit.



New strategies are needed to motivate them to try to quit. With funding from the Canadian Cancer Society, Dr Mir is leading a team to test a smartphone application to convince smokers to attempt to quit. A preliminary study showed that the app helped people plan to quit and to succeed in quitting smoking. Now, the research team will further evaluate the app by teaming up with primary care providers to recruit new participants. The participants will receive counselling and the researchers will conduct surveys to measure their motivation, confidence and readiness to quit as well as whether they actually decide to quit and succeed in doing so. If successful, this smartphone app could be used to encourage more people to quit smoking, reducing their risk of cancers and other smoking-related diseases.

Dr Hermann Nabi, Laval University

Individualised cancer prevention for at-risk individuals

Dr Hermann Nabi will test the feasibility of personalized cancer prevention strategies for Canadians known to be at high risk of developing breast or prostate cancer.

Stopping cancer before it starts is the best way to reduce its impact on Canadians, but the number of cases diagnosed per year keeps rising, suggesting that new preventative strategies are needed. Some people are known to be at high risk of cancer because their close family members have had cancer and/or they have an identified genetic susceptibility to cancer. With Canadian Cancer Society funding, Dr Nabi will lead a team of researchers to work with people at higher risk of breast or prostate cancer to develop and test a personalised cancer prevention plan for each person. The plan will involve web-based support and follow-ups, and the researchers will test whether the plans help the participants reduce their risk of cancer by looking at biomarkers in clinical samples. The researchers hope to show that an individualised plan can help prevent cancer in people already known to be at high-risk of cancer development.

Dr Ian Newhouse, Lakehead University

Culturally tailored physical activity and wellness programs for First Nations communities

Dr Ian Newhouse will work with Sandy Lake First Nations to design and implement a physical activity and wellness program to prevent chronic diseases and cancer.

First Nations people in Canada have higher rates of cancer than non-Indigenous people, and health promotion strategies tailored to individual First Nations communities are needed to prevent cancer and other chronic diseases. With Canadian Cancer Society funding, Dr Newhouse will work with people in Sandy Lake First Nations to design a culturally appropriate physical activity and wellness program for community members. The program will be designed for people who are living with cancer as well as their friends, family and caregivers. The researchers will implement and then assess the program for its impact on the physical activity and wellness of community members, as well as asking for feedback using sharing circles led by members of the community. The work will identify barriers and ways of promoting physical activity and wellness in Sandy Lake First Nations, which can be used to help design and implement similar health promotion programs in other First Nations communities across Canada. Implementing these culturally tailored physical activity and wellness programs will prevent cancer and other chronic diseases in First Nations communities.



Dr Paul Oh, Toronto Rehabilitation Institute, University Health Network

An online program for health promotion and reducing cancer risk

Dr Oh is pioneering an online program to help Canadians reduce their risk of developing cancer by eating well and exercising.

Approximately 4 in 10 cancers can be prevented by making improvements to lifestyle, such as eating well and getting adequate exercise. Despite this, 85% of Canadian's don't get the recommended amount of weekly exercise and 60% don't eat the recommended quantity of fruits and vegetables. With Canadian Cancer Society funding, Dr Oh is leading a team that is developing an online program to help promote healthy behaviours among people at high risk of developing cancer in Ontario and Québec. The researchers hope to engage 200 people per year in their 12-week program which involves educational webinars and virtual meetings with a health coach, as well as support and information exchange between program participants. Participants will be assessed both before and after the program and will be asked about their weekly minutes of activity and their servings of fruits and vegetables. Through this program, the researchers hope to reduce the chance of developing cancer in at-risk individuals and demonstrate that their online program is a viable, scalable solution to achieving cancer risk reduction in Canada.

Dr Rachel Prowse, Memorial University

Does taxing sugary drinks improve health?

Dr Rachel Prowse will evaluate the impact of a taxes on sugary beverages in Newfoundland and Labrador.

Sugary drink consumption is linked with obesity and increased risk of cancers, including colorectal cancer. Intake of sugary drinks is predicted to cause 3 million cases of obesity and over 100,000 cancers over the next 25 years in Canada. To try and reduce these numbers, Newfoundland and Labrador (NL) introduced a tax on sugary beverages in May 2021 of 20 cents per litre. With support from the Canadian Cancer Society, Dr Prowse will analyse the effect of the tax after the first 12 months of implementation by looking at changes in beverage price, sales and intake before and after the tax, comparing NL to other Canadian provinces. The researchers will look at prices of products in major and small retailers in NL and 900 people will be asked about their intake of sugary drinks. If NL's tax is shown to be successful, it could be introduced throughout Canada to help prevent over 20,000 cases of obesity-related cancers over the next 25 years. The revenues gained by the tax can also be reinvested in other progressive health interventions, such as subsidising the costs of healthy foods, which can help more people eat well and further reduce cancer risk.

Dr Julianne Sanguins, University of Manitoba

Reducing cancer risk by tackling radon

Dr Julianne Sanguins will help reduce the risk of lung cancer for Métis people in Manitoba by monitoring household radon levels.

The leading cause of death among Métis people in Manitoba is cancer, and exposure to radon gas is the second leading cause of lung cancer after tobacco smoking. Households in Manitoba



were found to have the second-highest concentration of household radon of any province in Canada and this, combined with people spending more time in their homes during the pandemic makes radon exposure a growing concern. Despite the high rates of cancer in Métis people in Manitoba, little is known about their exposure to radon gas inside their homes or whether Métis people are aware of the health impacts of radon. With support from the Canadian Cancer Society, Dr Sanguins will work with Métis people and organisations in Manitoba to distribute radon test kits to 10 households in areas known to be high in radon. He will also work with them to install systems to reduce the amount of radon in their homes. Following the evaluation of this preliminary work, a further 90 test kits will be made available to Métis citizens in Manitoba and the researchers will seek funding to install additional mitigation systems for the radon. This research project will reduce the risk of developing lung cancer for Métis people in Manitoba.

Dr Aline Talhouk, University of British Columbia

Preventing endometrial cancer

Dr Aline Talhouk is identifying people at high risk of endometrial cancer and testing lifestyle modifications and hormone therapies to reduce their risk

Endometrial cancer cases are increasing at a rate of 2 to 3% per year, partly due to a global increase in obesity. Treatment involving the removal of the uterus is often curative, but people with obesity are at an increased risk of complications from surgery. With support from the Canadian Cancer Society, Dr Talhouk will lead a project to identify people at a high risk of developing endometrial cancer with a goal of reducing their risk through tailored interventions. The participants will undergo a hormone test to identify precancerous cells, and people with precancerous cells will be referred for further testing. People confirmed to have precancerous cells will be directed either to undertake lifestyle modifications or hormone therapy to reduce their risk of developing endometrial cancer. The researchers hope to understand how feasible this project is, testing the ease of recruiting participants and whether they follow the suggested prevention strategies. If successful, this program will result in tailored preventative therapy to prevent people from developing endometrial cancer.

Dr Thomas Tenkate, Ryerson University

A mobile app to promote sun safety for people who work outside

Dr Thomas Tenkate is developing an app to help promote sun safety for those who work outdoors.

Skin cancers are largely preventable. Yet they remain the most commonly diagnosed type of cancer in Canada. People who work outside have a higher risk of developing skin cancers due to increased UV light exposure from the sun. But they may not always be aware of their level of sun exposure or when to use preventative measures. With funding from the Canadian Cancer Society, Dr Tenkate is leading a project to develop a sun safety app specifically tailored to people who work outside, with the aim of reducing their skin cancer risk. The app will take into account the personal characteristics of the person, their job tasks, geographic location, workplace and skin cancer risk to tailor specific preventative communications and text messages based on individual risk. Other sun safety apps are available for the general public, but most have not been formally tested and none have provided tailored messaging for people



who work outdoors. The researchers will initially trial their app in rural municipalities and agricultural areas in Saskatchewan to evaluate how effective it is in improving sun safety behaviours and practices. If successful, the research team hopes to expand the app across Canada and could also design another app to help the general public reduce their skin cancer risk.

Dr Peizhong Wang, Memorial University

Improving access to nutritious foods in Newfoundland and Labrador

Dr Peizhong Wang is working with community partners in Newfoundland and Labrador to improve access to nutritious foods to help people reduce their cancer risk.

Newfoundland and Labrador (NL) has the highest cancer incidence rate of any province in Canada. Many people in NL live in rural areas and access to nutritious food can be difficult, with 84% of people lacking a grocery store in their community and 15% facing food insecurity. With funding from the Canadian Cancer Society, Dr Wang is working with community organizations and individuals in NL to improve food retail environments with the aim of helping people eat well and reducing their risk of several types of cancer, including colorectal cancer. A key aim of the work will be to remove barriers preventing people with low-income from accessing nutritious foods. If successful, the researchers hope that this project can be expanded to other parts of Canada to help more people prevent cancer by eating well and improving access to nutritious foods.

Dr Lin Yang, University of Calgary

An artificial intelligence tool to reduce sedentary behaviour in Canadians.

Dr Lin Yang will develop an app which uses artificial intelligence to help people in Canada increase their activity and help them reduce their cancer risk.

Around 4 out of 10 cancers in Canada can be prevented through changes in behaviour. Although tools are available to educate people about their cancer risk, education alone is not sufficient to change behaviour. Many of the tools that help mobile phone users change their behaviours rely on generic messaging and reminders to promote change. Inactivity is a growing health risk to people in Canada and has become more prevalent during the COVID-19 pandemic. Canadian Cancer Society-funded researcher Dr Yang will lead a team using artificial intelligence and language processing to develop an app which delivers personalised messaging to users to help them increase their activity levels. The app will be tested by a diverse population of smartphone users. If the study is successful, the app will be a cost-effective solution to reducing sedentary behaviour in people across Canada. The researchers also hope that the app can be modified to promote other healthy behaviours to reduce cancer risk.



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