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**Occupational
Cancer
Research
Centre**

OCCUPATIONAL CANCER RESEARCH CENTRE

Strategic Plan
2014-2019

Ontario Ministry of Labour / Ministère du Travail

Canadian Cancer Society / Société canadienne du cancer

Ontario Cancer Care Ontario

UNITED STEELWORKERS / USW / MÉTALLOS

about OCRC

The Occupational Cancer Research Centre is an applied research centre established to generate new knowledge to help prevent occupational cancer.

There are many confirmed workplace carcinogens, yet people continue to be exposed to them every day.

Our science and partnered knowledge translation efforts align fully with our funders' mission of cancer prevention by influencing workplace practices, informing government policies, and raising general awareness of known and suspected risks and ways of mitigating these risks.

We are committed to active collaboration between researchers and workplace parties to bring the best of science and applied experience together to create change.

We envision workplaces free from exposures that cause cancer. We believe that together we can make this happen.

our people

OCRC Funding Partners

Canadian Cancer Society, Ontario Division
Cancer Care Ontario
Ontario Ministry of Labour, Prevention Division

OCRC Steering Committee

Dr. Andréane Chénier, *National Representative, Health and Safety, Canadian Union of Public Employees*
Dr. Paul Demers, *Director, Occupational Cancer Research Centre, Cancer Care Ontario*
Dr. Leon Genesove, *Chief Physician, Ontario Ministry of Labour*
Mr. Peter Goodhand (Chair), *Executive Director, Global Alliance for Genomics and Health*
Dr. Linn Holness, *Director, Centre of Research Expertise in Occupational Disease, University of Toronto and St Michael's Hospital*
Dr. Roland Hosein, *Chair, Canadian Standards Association Group Board of Directors*
Mr. Gerry Leblanc, *Department Leader, Health, Safety and Environment Department, United Steelworkers, Canadian National Office*
Dr. Anthony Miller, *Professor Emeritus, Dalla Lana School of Public Health, University of Toronto*
Ms. Rowena Pinto, *Vice President Public Affairs and Strategic Initiatives, Canadian Cancer Society, Ontario Division*
Dr. Linda Rabeneck, *Vice President, Prevention and Cancer Control, Cancer Care Ontario*
Dr. Eugene Wen, *Vice President and Chief Statistician, Workplace Safety and Insurance Board*
Dr. Christine Williams, *Vice President, Research and Policy, Canadian Cancer Society*

OCRC-Funded Scientists and Staff

Dr. Victoria Arrandale, *Senior Research Associate*
Mr. Colin Berriault, *Research Associate*
Dr. Paul Demers, *Director*
Ms. Connie Fernandes, *Research Clerk*
Ms. Jill Hardt, *Research Associate*
Dr. Shelley Harris, *Scientist*
Ms. Julia Hayos, *Research Associate*
Ms. Kate Jardine, *Research Associate*
Ms. Sheila Kalenge, *Research Associate*

Ms. Joanne Kim, *Research Associate*
Dr. Desre Kramer, *Associate Director*
Ms. Rivka Kushner, *Research Associate*
Mr. Wolodymyr Lewyckyj, *Senior Manager*
Ms. Garthika Navaranjan, *Research Associate*
Ms. Marjorie Pagcu, *Research Coordinator*
Ms. Manisha Pahwa, *Research Associate*
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Affiliated Scientists

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Dr. Leon Genesove, *Ontario Ministry of Labour*
Dr. Anne Harris, *Ryerson University*
Dr. Linn Holness, *Centre for Research Expertise in Occupational Disease*
Dr. Chun-Yip Hon, *Ryerson University*
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Dr. Chris McLeod, *University of British Columbia*
Dr. Anne-Marie Nicol, *Simon Fraser University*
Dr. Cheryl Peters, *CAREX Canada*
Dr. Thomas Tenkate, *Ryerson University*
Dr. Paul Villeneuve, *Carleton University*

Partners

Canadian Cancer Society, National Office
CAREX Canada
Centre for Research Expertise in Occupational Disease (CREOD)
United Steelworkers
Ontario Workplace Safety and Insurance Board

Retired Ontario mining industry worker – Sudbury, Ontario.
Photo courtesy of Canadian Cancer Society.

Working together to prevent occupational cancer

The Occupational Cancer Research Centre (OCRC) was established in 2009 as the first research centre in Canada dedicated solely to the study of cancers caused by work. The Centre's founding partners were Cancer Care Ontario (CCO), the Canadian Cancer Society (CCS) Ontario Division, the Ontario Workplace Safety and Insurance Board (WSIB), and the United Steelworkers (USW). The Centre currently receives core funding from CCO, CCS Ontario Division, and the Ontario Ministry of Labour (MOL). Other partners include the Centre for Research Expertise in Occupational Disease (CREOD), CAREX Canada, and the CCS National Office. Our partners bring a range of resources and communication channels with which to leverage our research into prevention efforts and strengthen its collective impact.

OCRC is housed at CCO within the Prevention and Cancer Control (P&CC) portfolio. The OCRC's mission fully aligns with CCO's goal to help Ontarians lessen their risk of developing cancer, as well as P&CC's goals to develop new knowledge to increase understanding of causes of cancer and their determinants and to support evidence-based actions for cancer prevention. OCRC's position within CCO also facilitates access to secure facilities to protect the data necessary for health research, channels of communication to cancer treatment and primary care providers, and a line of communication to policy-makers on cancer prevention in Ontario.

Our mission is the prevention of occupational cancer. To this end, the goal of our applied research program is to build scientific knowledge of occupational cancer through three broad categories of research: surveillance research identifies the industries, occupations, and workers with the highest risks of occupational cancer; epidemiologic research helps us understand better the causes of cancer; and prevention research helps identify the most effective, context-sensitive interventions that reduce exposure to workplace carcinogens.

Although our research program is focused on Ontario, we also strive to initiate or foster national research initiatives and to take a leadership role in promoting occupational cancer research in Canada. In addition, we collaborate as widely as possible with researchers both within Canada and internationally, through an informal network. Strengthening and extending this network, and supporting shared projects and collective capacity-building is essential to achieving our research goals and bringing the best possible science to Ontario.

To help further our prevention vision and our research goals, in the next five years we will focus on three key strategic objectives:

1. Develop the OCRC research program to strengthen the Centre's influence and impact.
2. Expand the Centre's capacity to conduct occupational cancer research.
3. Increase the translation of our research findings into policy change and practical prevention measures.

In pursuing these objectives we are always guided by these fundamental values:

- Academic excellence and integrity
- Relationships built on mutual respect and trust
- A commitment to support change

OCRC Summary Five-Year Plan
2014-2019

MISSION

The Prevention of Occupational Cancer

GOALS

The goal of our Centre is a research program that addresses occupational cancer through three broad categories of research:

1. **Surveillance:** research that identifies the industries, occupations, and workers where the risks of occupational cancer are the highest
2. **Causation:** epidemiologic research that identifies the causes of cancer in the workplace and synthesizes the results of previous studies
3. **Prevention:** research that helps identify the most effective, context-sensitive interventions to reduce exposure to workplace carcinogens

CENTRE OBJECTIVE 1	CENTRE OBJECTIVE 2	CENTRE OBJECTIVE 3
Develop the OCRC research program to strengthen influence and impact	Build and strengthen capacity to conduct occupational cancer research	Strengthen 'research to action' exchange to enhance collective impact
STRATEGIC PRIORITIES	**STRATEGIC PRIORITIES**	**STRATEGIC PRIORITIES**
1.1 Maintain the highest standards of research quality	**2.1** Establish research platforms and improve access and use	**3.1** Actively involve knowledge users in the research process
1.2 Establish targeted sectors/exposures to build focus & depth	**2.2** Actively support new investigators and trainees	**3.2** Translate research findings into policy change and practical prevention measures
1.3 Expand funding and research partners	**2.3** Encourage national research networks and support collaborations	**3.3** Develop a multi-pronged dissemination strategy

VALUES

Academic excellence and integrity
Relationships built on mutual respect and trust
A commitment to support change

Develop the OCRC research program to strengthen influence and impact

STRATEGIC PRIORITIES

1.1 Maintain the highest standards of research quality

1.2 Establish targeted sectors/ exposures to build focus and depth

1.3 Expand funding and research partners

The Centre's objective over the next five years is to continue to develop the OCRC research program in order to strengthen the influence and impact of the science. The current research program has three interrelated areas of focus, described below.

Surveillance Research

OCRC conducts two kinds of surveillance research – one on occupational cancer, such as our linkage of WSIB and Ontario Cancer Registry records, and one on carcinogen exposure, such as our creation of a database of Ontario mining exposure data. Surveillance studies are important because they generate the basic data on disease and exposure that are needed for evidence-based decision making. This information can be used to target high risk groups, set priorities for prevention-related activities, monitor trends, assess the impact of changes in technology, regulation, or other interventions, and predict future cases of disease.

Canada currently does not have systems in place for the ongoing surveillance of occupational cancer. During our first five years we created several new promising surveillance projects. Over the next five years we will work with our partners to continue to create, integrate and expand databases to serve this purpose.

Causation Research

This area focuses on epidemiologic research to identify workplace hazards that cause cancer. These studies aim to increase our knowledge regarding known carcinogens (i.e. help determine the types of cancer they cause and the levels of exposure at which they become hazardous), resolve uncertainty regarding suspected carcinogens, and to identify new carcinogens. This area also focuses on the synthesis of the scientific literature to generate the data necessary to facilitate policy and prevention activities.

Over the next five years we aim to expand our knowledge on the causes of occupational disease through targeted studies of high-risk and vulnerable populations and high-impact carcinogens and/or industries. We will also continue our efforts to synthesize existing knowledge on workplace carcinogens to produce data that can be used to promote prevention.

Prevention Research

Prevention research develops and evaluates prevention and exposure reduction strategies in workplaces, industry sectors, and society, and helps inform the design of programs, practices, and policies. This research focuses on the evaluation of practical workplace efforts to reduce exposures, enhance knowledge transfer, and undertake implementation science, as well as on broader efforts to raise awareness and effect change.

Over the next five years we aim to contribute to the science of and the methods of knowledge transfer and implementation science in the fields of occupational cancer and occupational health and safety and to develop new, and evaluate existing, workplace prevention research in occupational cancer to reduce the impact of exposure to known and suspected carcinogens.

Performance Measures

i.   By year 5, regularly secure $1 million in new research funding annually, aligned to our funders' mission of eliminating workplace exposures to carcinogens.
ii. Grow core Centre funding by 25% by year 5.
iii. Maintain administrative costs at or below 20% of overall budget including both core operating and research funding.
iv. Submit one manuscript per year related directly to Centre or collaborative work for every research staff member on salary.

v. Track recognition provincially, nationally, and internationally as measured by citations, presentations, and participation on expert panels.

vi. Track impact as described through impact stories/vignettes regarding changes in level of awareness, workplace practices, and provincial policy.

Strategic Priorities 2014-2019

1.1 Maintain the highest standards of research excellence
- Submit successful, mission-aligned applications to competitive grant competitions.
- Target high quality journals and conferences on an annual basis to build reputation and sustain academic linkages.

1.2 Establish targeted sectors/exposures to build focus and impact
- Develop cross-cutting (surveillance, causation, prevention) research themes in 2-3 priority areas as identified with the Centre's Steering Committee, for example the mining sector and/or pesticides.
- Prepare position papers to synthesize the current state of knowledge.
- Hold forums to discuss and develop a targeted research agenda.
- Establish, or provide support to, coordinated programs of research.

1.3 Expand funding and research partners
- Sustain funding with current partners and expand core partners and funding.
- Seek funding for research themes identified in 1.2 to attract scientific leadership and support research and knowledge transfer by theme.
- Expand the Centre's working partnership with CAREX Canada.
- Strengthen working relationships with researchers across Canada who are doing cancer research.

Photo above: *Nurses and other healthcare professionals are exposed to a variety of known and suspected carcinogens in their workplaces including shiftwork, ionizing radiation, and antineoplastic drugs*

OBJECTIVE 2

Build and strengthen capacity to conduct occupational cancer research

Over the next five years we will continue to identify and develop new research platforms. The OCRC defines platforms as large epidemiologic studies or specialized databases that can be used to investigate a wide range of research questions. These can range from the Centre's mining exposure database project, a small project of immediate use, to the Ontario Health Study, a study costing many millions that will primarily be of use many years in the future. The Centre has established platforms in all three of our research areas, allowing us to examine the risk of cancer in a wide range of industries while also providing opportunities for our new investigators and trainees to develop specific research projects leading to scientific publication and presentations.

The Centre seeks out and provides opportunities and funding to new trainees, both through short-term research practicums and longer relationships. The OCRC also supports a new seminar series, jointly sponsored with our partners, as well as other educational events, which attract both trainees and occupational health professionals in the field. Initially, many Centre trainees came from the University of Toronto and many staff originally joined OCRC as trainees. Over the next five years we will expand and widen our efforts to recruit and support the best quality trainees from institutions both within and outside of Ontario.

The Centre also seeks to build capacity by attracting both new and established researchers to its large, informal network of collaborators through joint projects and team grants. The Centre has formalized its relationship with its Ontario-based collaborators by naming them Affiliated Researchers, posting their biographies on our website, and, when possible, providing some support for trainees and grant preparation. However, the Centre now has collaborators from across Canada and beyond that contribute to the quality and breadth of our research. Over the next five years we will expand our pool of affiliated researchers to be national and seek funding to support more team grants and support research by our informal network.

Performance Measures

i.   Develop 3 new research platforms over the next five years.
ii. At least 5-7 students/trainees supported by OCRC annually.
iii. Placements (e.g., research, teaching, government) of students/trainees after OCRC experience demonstrate capacity-building value of OCRC.
iv. 100% growth in number of affiliated scientists over the 5-year period.
v.   Take leadership on 2 new proposals to team grant or network funding competitions over the next five years.

Strategic Priorities 2014-2019

2.1 Establish research platforms and improve access and use
- Identify more case-control studies with occupational history and exposure data that have not been fully utilized and establish agreements for access and use.
- Create large datasets, both traditional occupational cohorts and surveillance datasets created through linkage, to become new research platforms.

2.2 Actively support new investigators and trainees
- Support Masters/PhD students and other trainees from a variety of institutions.
- Support the Occupational and Environment Health Seminar Series conducted in collaboration with CREOD, the University of Toronto, and Public Health Ontario.
- Sponsor new educational events.

2.3 Encourage national research networks and support collaborations
- Expand the number of OCRC-affiliated scientists to strengthen the quality of the science and improve mentoring opportunities for staff and junior scientists.
- Contribute to efforts by the Canadian Cancer Society Research Institute to establish a national cancer prevention research network.

Strengthen 'research to action' exchange to enhance collective impact

STRATEGIC PRIORITIES

3.1 Actively involve knowledge users in the research process

3.2 Translate research findings into policy change and practical prevention measures

3.4 Develop a multi-pronged dissemination strategy

Over the next five years OCRC will be exploring new ways to involve our funders, partners, and workplace stakeholders to ensure that our research is always aligned with their missions, and relevant to their needs, problems, and issues. In addition, with the help of our partners, we will be engaging with policy decision-makers, and will make specific policy recommendations to our stakeholders to promote the prevention of occupational cancer.

OCRC is an applied research centre that is committed to generating evidence-based knowledge that can be used by workplaces, organized labour, industry, non-governmental organizations, and policy- and decision-makers to reduce occupational exposures to carcinogens. OCRC established its initial set of research priorities by surveying its broad set of stakeholders and has continued to develop its priorities through either direct consultation with partners or through its steering committee, composed of stakeholder representatives.

OCRC has always strived to conduct policy-relevant research. In addition, knowledge translation has always been a core mandate of the Centre in order to strengthen influence of our science. We are committed to ensuring that our partners have access to the best current knowledge to inform their prevention practices and initiatives.

Performance Measures

i. Increase the number of policy briefing notes prepared for CCO and submitted to government, as well as to other targeted organizations, and the number of requests to participate in policy discussions.
ii. Grow the engagement of our partners as mobilizers of Centre research.
iii. Grow the level of participation of knowledge users (stakeholders) in research grants and research studies; moving from consultation to partnerships with industry, labour and policy decision-makers.
iv. Grow the number of workplace-based prevention studies to assist implementation of evidence-based prevention policies and practices.

v. Increase the number of plain language materials and the number of measures of its use, e.g., website downloads.

Strategic Priorities 2014-2019

3.1 Actively involve knowledge-users in the research process
- Engage stakeholders and funders intensively as research partners specifically in workplace prevention research.
- Organize public events (1-2 per year) to give stakeholders the opportunity to have input into the OCRC research agenda and give researchers an opportunity to transfer knowledge to employers, workers, treatment providers, and policy- and decision-makers.

3.2 Engage Centre partners as knowledge navigators
- Provide evidence to funding partners.
- Provide an annual update to the MOL on occupational exposure limits.
- Provide policy briefings for CCO on occupational cancer.
- Support CCS symposia/forums/media requests.
- Establish a shared (co-resourced) knowledge translation project annually with partners based on needs and resources.

3.3 Develop a multi-pronged dissemination strategy
- Disseminate resources through the OCRC website, newsletters, and media articles.
- Share research findings through academic reports, presentations, and posters
- Create research summaries for policy- and decision-makers on targeted issues.
- Develop plain-language reports, fact sheets, one-page summaries, and handouts.