

Occupational

# **OCCUPATIONAL CANCER RESEARCH CENTRE (OCRC)**

# YEAR 3 (2011-2012) **OPERATING PLAN**

April 26, 2011



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## **EXECUTIVE SUMMARY**

The Occupational Cancer Research Centre (OCRC), established in 2009, is based at Cancer Care Ontario and is jointly funded by the Workplace Safety and Insurance Board (WSIB), the Ontario Division of the Canadian Cancer Society (CCS), and Cancer Care Ontario (CCO). This document outlines the research, capacity building, knowledge exchange, and sustainability activities planned for Year 3, according to the four strategies of the OCRC 5-Year Strategic Plan. The Year 3 plan does not deviate significantly from the Strategic Plan, which was developed and approved by the OCRC Steering Committee, consisting of representatives from the funding organizations, organized labour, employers, the Ministry of Labour, and the research community.

**Strategy 1: Build a Research Program.** The OCRC is expanding its research program considerably in Year 3. Research projects will be conducted in all areas of focus (surveillance, causes, interventions). The Centre will enter the year with 13 ongoing projects and several others planned, using a mix of research methods and collaborating with researchers in Ontario, elsewhere in Canada, the U.S., and Europe. A number of the projects are nearing completion and the results will be shared with academic and other stakeholder communities through publications and presentations.

**Strategy 2: Build Research Capacity.** The Centre's core research team will consist of a director, four affiliated Scientists, four Research Associates, and a research manager, as well as two part-time administrative support staff members. We will enter the year with three graduate students and a post-doctoral fellow from diverse backgrounds. The graduate students will complete their work on Centre projects early in the 2011-12 and our goal is to recruit at least five new graduate students. The OCRC will be creating a research network so that other Canadian scientists can become "affiliates" of the Centre. Several cancer surveillance projects will be initiated that will also act as excellent research platforms.

**Strategy 3: Deliver and Exchange Knowledge.** The OCRC will expand its work delivering and exchanging knowledge with stakeholders to build awareness for occupational cancer, encourage the emergence of new research questions, and inform policy and practice, using the OCRC website, OCRC and other centres' publications, and by actively engaging with stakeholders. The OCRC will create learning opportunities with its 3<sup>rd</sup> Annual Research Day, a second research symposium on shift work, a workshop on the classification of carcinogens, and a new seminar series co-sponsored by the OCRC, the Centre for Research Expertise in Occupational Disease (CREOD) and the Ontario Agency for Health Protection and Promotion (OAHPP).

**Strategy 4: Build a Sustainable Centre.** We have developed a strong core of researchers, staff, and students with an effective infrastructure. As well, the reputation of the Centre is growing. During the coming year we will strengthen our relationships with the other occupational disease research centres funded by the WSIB (the CRE's), Ontario universities, non-research institutions, and internally within CCO. We will also begin to actively seek out additional partners and additional core funding from traditional granting institutions, government agencies, and non-governmental organizations.



# OCRC OPERATIONAL PLAN FOR YEAR 3 (2011-2012)

The OCRC, established in 2009, is based at Cancer Care Ontario (CCO) and is jointly funded by the Workplace Safety and Insurance Board (WSIB), the Ontario Division of the Canadian Cancer Society (CCS), and CCO and was also developed in collaboration with the United Steelworkers. The goal of the OCRC is to fill the gaps in our knowledge of occupation-related cancers and use these findings to inform preventive programs to control workplace carcinogenic exposures and improve the health of workers.

The OCRC has been productive since its inception in 2009, but in Year 3 (2011-12) the Centre will hit its stride. Towards the end of Year 2, the OCRC had a full-time, permanent director, four affiliated scientists, a full complement of staff and students and an established governance structure, setting up Year 3 to be the most productive year to date. This document outlines the research, capacity building, knowledge exchange and sustainability activities planned for Year 3 according to the four strategies of the OCRC 5-Year Strategic Plan (see Appendix A for a one-page summary of the OCRC Strategic Plan or visit the website to view the full report: <a href="http://occupationalcancer.ca/aboutocrc/vision-strategic-direction/">http://occupationalcancer.ca/aboutocrc/vision-strategic-</a> direction/). The Year 3 plan does not deviate significantly from the Strategic Plan, which was developed and approved by the Steering Committee of the Centre, consisting of representatives from the three funding organizations, organized labour, employers, the Ministry of Labour, and the research community.

### **1. BUILD A RESEARCH PROGRAM**

The OCRC is expanding its research program considerably in Year 3. Research projects will be conducted in all areas of the research agenda (surveillance, causes, interventions) and the results of this research will be shared with academic and other stakeholder communities through publications and presentations. The Centre will enter the new fiscal year with 13 ongoing projects, several of which will be nearing completion, and four more projects in the planning stages. A summary of the research projects that will be ongoing, initiated, or for which a grant proposal has been submitted (Table 1); a list of the grant proposals being considered for 2011-12 (Table 2); and a list of planned and accepted papers and conference abstracts for 2011-12 (Table 3) can be found in Appendix B. The OCRC website has complete descriptions of ongoing research projects at: <a href="http://occupationalcancer.ca/topics/projects/">http://occupationalcancer.ca/topics/projects/</a>.

This work meets the objectives related to building a research program in the OCRC's strategic plan, including: undertaking research, publishing and presenting in the Centre's areas of focus (surveillance, causes, interventions) using a mix of research methods; and developing and support a strong network of researchers working in collaboration with the Centre. More information about building a network of researchers can be found in the next section on building research capacity.

### 2. BUILD RESEARCH CAPACITY

The OCRC will continue to build research capacity in Ontario and Canada in its third year of operations. Priority areas are building and retaining the core research team, recruiting and training students and post-doctoral fellows, developing a network of affiliated scientists, working with non-academic stakeholders on developing relevant research questions, and facilitating the development of research platforms.

#### **Research team**

2011-12 is the first year that the OCRC will have a permanent director and a full complement of staff for the whole year. In 2011-12, the Centre's core research team will consist of four Scientists, four Research Associates, and a research manager as follows:

- Dr. Paul Demers, Director
- Dr. Shelley Harris, Affiliated Scientist (0.75 externally funded by CCO)\*
- Dr. Loraine Marrett, Affiliated Senior Scientist (externally funded by CCO)\*
- Dr. John McLaughlin, Affiliated Senior Scientist (externally funded by CCO)\*
- Dr. Minh Do, Junior Affiliated Scientist (0.80 externally funded and based at the Public Health Agency of Canada)\*
- Karin Hohenadel, Research Associate
- Marina Stegne, Research Associate
- Priyanka Raj, Research Associate
- Kate Jardine, Junior Research Associate
- TBD, Senior Research Associate or Staff Scientist (who will also act as a research manager)

\* Affiliated scientists do not work full-time on OCRC projects, but each plays a significant, leading role in one or more OCRC projects (see Appendix B).

The research team is supported by a part-time Administrative Assistant (Yen Borrego) and part-time Project Manager (Caroline Silverman). We anticipate hiring a statistical analyst and possibly other research associates to work on research funded by the Canadian Nuclear Safety Commission (CNSC) and other grant and contract funders in 2011-12.

#### **Student training**

We will enter the year with three graduate students and a post-doctoral fellow from diverse backgrounds working on Centre projects, as follows:

1) Manisha Pahwa, MPH student (Occupational and Environmental Health, University of Toronto)

• Working on "Cross-Canada study of pesticides and select cancers: New analyses"

2) Victoria Arrandale, PhD student (Medical Science, University of Toronto)



- Working on "Women and minorities in occupational cancer research" project and on the "Analysis of the MESU database and linkage with CAREX estimates" project
- 3) Patricia Liu, Ph.D. Student (History & Philosophy of Science & Technology, University of Toronto)
  - Working on the history of occupational cancer research in Ontario/Canada
- 4) Anne Harris, Post-doctoral fellow (Ph.D. from University of British Columbia)
  - Working on "Sinonasal cancer surveillance and exposure to sinonasal carcinogens in Ontario", "Linkage of 1991 Census (20% sample) with tumour registry data", and "Assessment of the human and economic costs of occupational cancer".

The three graduate students will complete their work early in 2011-12. The goal for the 2011-12 fiscal year will be to recruit at least five new graduate students to work on OCRC projects. In addition, we plan to recruit another post-doctoral fellow.

#### Affiliated scientists

The OCRC currently works on research projects with scientists from Ontario, elsewhere in Canada, and internationally (see Table 1 in Appendix B). The OCRC will continue to build relationships with these and other scientists and will create a more formalized network, so that these scientists become "affiliates" of the Centre. The director of the Centre will be visiting potential members of the network across the province in the spring of 2011 to discuss different affiliation and network models, as well as possible joint projects. Researchers with a history of doing at least some occupational cancer research have been identified at McMaster University, Queen's University, the University of Guelph, Brock University, Laurentian University, and the University of Ottawa, as well as at Health Canada.

#### Non-academic stakeholders

The OCRC will work to engage non-academic stakeholders and get them involved in the research cycle, to ensure the relevance of the research questions and the usefulness of the results. We will continue to meet with stakeholder groups to discuss the work of the Centre and to seek input on research and prevention priorities. For more information about knowledge exchange activities, see section 3 - "Deliver and exchange knowledge".

#### **Research platforms**

Over the next year the OCRC will be initiating several cancer surveillance projects that will act as excellent research platforms. The first of these will be a collaborative project with Statistics Canada to analyze the occupational results of a linkage between the 1991 Census and the Canadian Cancer Registry. We have also initiated a large collaborative project with CAREX Canada (see Appendix B, Table 1, Project 10) that will create an excellent platform for a number of new research projects. Paul Demers, Director of the OCRC, has kept his role as the Scientific Director of CAREX Canada, a national carcinogen surveillance project funded by the Canadian Partnership against Cancer (<u>http://www.carexcanada.ca</u>). Although the project is primarily based in British Columbia, the goal is to gradually move elements of the program to the OCRC. The Centre will continue to explore opportunities to evaluate workplace exposures as part of the Ontario Health Study (OHS). Eventually, the OHS and its sister cohort studies in other



provinces may become the most important platforms for occupational cancer research in Canada and involvement at this stage may present opportunities to develop collaborations with leading national and international cancer researchers.

#### 3. DELIVER AND EXCHANGE KNOWLEDGE

The profile of the OCRC in Ontario, nationally and internationally is increasing, with a regular stream of invitations to speak to various labour, not-for-profit, and academic groups being received. In 2011-12, the OCRC will expand its work delivering and exchanging knowledge with stakeholders to build awareness for occupational cancer, encourage the emergence of new research questions, and inform policy and practice. We will also strengthen our communications with employer and multi-partite organizations, such as the Health and Safety Associations.

#### Learning opportunities

The OCRC will exchange knowledge with stakeholders and create learning opportunities at its 3<sup>rd</sup> Annual Research Day (Spring 2012) and at the second research symposium on shift work and occupational disease. An application to fund the second shift work symposium, focused specifically on interventions, has been submitted with Kristan Aronson (Queen's University) and Cameron Mustard (Institute for Work and Health) as co-applicants. An application to fund another symposium on the classification of carcinogens has been submitted to the Canadian Institutes for Health Research, with Len Ritter (University of Guelph) and Jack Siematycki (University of Montreal) as co-applicants. The OCRC will also launch a seminar series in collaboration with the Centre for Research Expertise in Occupational Disease (CREOD) and the Ontario Agency for Health Protection and Promotion (OAHPP).

#### **Knowledge translation**

The OCRC plans to expand the intensity and reach of its knowledge translation activities in 2011-12. The OCRC will:

- Continue to add content to the OCRC website (<u>http://occupationalcancer.ca</u>), which was launched in June 2010. Collaborative work spaces on the website will enable research and stakeholder groups to have discussions and work on documents together.
- Send quarterly OCRC newsletters (including research results, information about the OCRC team and learning opportunities) to stakeholders. Send other communications, as required, for specific events or to specific stakeholder groups.
- Continue contributing to the monthly "Research Alert" abstracts disseminated by the Institute for Work and Health (IWH) to Health and Safety Associations.
- Continue contributing to the "News from the CREs" section of the IWH's "At Work" newsletter.
- Develop and disseminate two "Ontario Cancer Fact" sheets on various occupational cancer topics for stakeholders and the wider cancer control community.
- Present at labour, health professional, academic, and other stakeholder events. The Centre receives frequent requests for presentations on the work of the Centre or occupational cancer research and prevention priorities. For example, the director will be presenting on occupational



cancer at the United Steelworkers National Health, Safety, and Environment meeting in Vancouver (April 19-20, 2011). The director generally presents once or more per month, with requests arriving one to three months prior.

#### Stakeholder partnerships and collaborations

OCRC leaders and staff participate in several committees related to occupational health and cancer, which increases the OCRC's visibility, builds relationships and influences policy and practice.

- Canadian Cancer Society-related committees
  - Ontario Environmental and Occupational Committee
  - o National Environmental and Occupational Committee
  - o CCS National Advisory Committee on Research in Prevention
  - CCSRI Research Program Redesign Working Group
- Institute for Work and Health-coordinated committees
  - Health and Safety Association Liaison Committee
  - Knowledge Transfer and Exchange Hub
- Centre for Research Expertise in Occupational Disease
  - Scientific Committee for the 5<sup>th</sup> International Conference on Occupational and Environmental Exposure of Skin to Chemicals (to be hosted by CREOD June, 2011)
- Ministry of Labour-coordinated committee
  - Occupational and Environmental Health Interest Group
- Council of Canadian Academies
  - o Committee on the Integrated Testing of Pesticides
- Canadian Partnership Against Cancer
  - Primary Prevention Committee

#### 4. BUILD A SUSTAINABLE CENTRE

To build a robust Centre that attracts new funding and partners it is necessary to:

- 1. develop a strong core of researchers and staff;
- 2. build strong Centre infrastructure; and
- 3. build a reputation of excellence in research and knowledge transfer and exchange.

The previous sections have described how we are developing a strong core of researchers and staff and summarized upcoming research and knowledge transfer and exchange activities. The basic infrastructure of the Centre was developed during its first years of operation, including its internal structure, advisory committees, and strategic plan. During the upcoming year we will strengthen collaborations with CREOD



and our relationships with Ontario universities. We will also strengthen our internal links within CCO to take advantage of the resources available through surveillance, prevention, and public affairs. We will also establish better collaboration with non-research institutions with an interest in occupational cancer, such as the Occupational Health Clinics for Ontario Workers and the Health and Safety Associations.

In its early years the Centre initiated a number of relatively small projects, such as analyses of existing data, systematic reviews, and the stakeholder survey. Most of these projects were funded internally and the work was performed using existing staff, although external funds were obtained for a few projects and pilot studies. These were all valuable and appropriate projects and because they relied on internal funds, they allowed the OCRC to quickly establish momentum and a strong reputation. However, the ultimate goal will be to use core funding as seed money or as leverage for additional research funding, and to fund Centre activities for which external funding is difficult to obtain, such as knowledge transfer and exchange. In the coming year we will attempt to obtain more funding through external competitions and opportunities that are particularly appropriate for the Centre, such as team grants.

In the Centre's third year we will also begin to actively seek out additional partners and core funding. We will take advantage of the frequent requests for presentations to publicly announce that we are seeking additional partners and to arrange meetings with the leadership of potential partner organizations. With guidance from the chair of our Steering Committee we will develop a strategy for directly approaching these and other institutions to request direct funding. We will also begin actively seeking programmatic funding opportunities from the Canadian Institutes for Health Research (CIHR) and the other traditional granting institutions.

# APPENDIX A: SUMMARY TABLE OF OCRC 5-YEAR STRATEGIC PLAN (2009-14)

Strategy 1: Build a research program		
Strategic Plan:	Objectives:	
To build a research program that brings together researchers to further knowledge in the following areas: surveillance of occupational cancers and workplace exposures; identification of causes of cancer in the workplace; intervention research to develop and evaluate prevention and exposure reduction strategies.	<ul> <li>1.1 Undertake research, publish and present in the Centre's areas of focus (surveillance, causes, interventions) using a mix of research methods.</li> <li>1.2 Develop and support a strong network of researchers working in collaboration with the Centre.</li> </ul>	
Strategy 2: Build Research Capacity		
Strategic Plan:	Objectives:	
To grow and develop occupational cancer research capacity across disciplines and stakeholder com- munities considering: Number of people working in the field; capacity to participate in research; and ability to use research findings.	<ul> <li>2.1 Support researchers and stakeholders to build capacity, share knowledge, and identify collaborative research opportunities and priorities.</li> <li>2.2 Facilitate the development of research platforms including data set assembly, cohort development, and innovative research methods.</li> <li>2.3 Attract students, pre and post doctoral scientists, and researchers in other disciplines to occupational cancer research.</li> </ul>	
Strategy 3: Deliver and Exchange knowledge	1	
Strategic Plan:	Objectives:	
To establish effective ways to build awareness for occupational cancer, inform/influence policy and practice, and encourage dialogue and the emergence of new research questions.	<ul> <li>3.1 Support awareness building and knowledge exchange for oc- cupational cancer surveillance, causes, prevention and intervention at the policy, workplace, and community levels.</li> <li>3.2 Develop and disseminate materials that are accessible and useful to the broad stakeholder communities.</li> <li>3.3 Support stakeholders' occupational cancer initiatives to effect change at the policy, workplace, and community levels.</li> </ul>	
Strategy 4: Build a Sustainable Centre	<u> </u>	
Strategic Plan:	Objectives:	
To build a robust Centre that attracts funding and partners in support of excellence in research and knowledge transfer and exchange (KTE).	<ul> <li>4.1 Build a strong base of funding and strategic partners.</li> <li>4.2 Develop a strong core of OCRC researchers and staff.</li> <li>4.3 Build strong Centre infrastructure including committees, structures, processes, and policies.</li> </ul>	

## APPENDIX B: 2011-2012 RESEARCH PROJECTS, GRANT PROPOSALS, PAPERS AND PRESENTATIONS

 Table 1. Research projects ongoing or planned in 2011-12

Research Project	OCRC Team and Collaborators	Funder, Budget and Timeline	Plans for 2011-2012
1. The effects of multiple pesticides in combination on cancer risk	OCRC: Aaron Blair (PI), Karin Hohenadel, Shelley Harris, Paul Demers, John McLaughlin Collaborators: John Spinelli (BC Cancer Agency), Nichole Garzia (UBC), Punam Pahwa & James Dosman (University of Sask.)	Core funding Complete in 2011	<ul> <li>Submit paper for publication</li> <li>Abstract submitted for presentation at the North American Congress of Epidemiology in Montreal</li> </ul>
2. The potential for immunologic conditions such as asthma to act as effect modifiers for pesticides and cancer risk	OCRC: Aaron Blair (co-PI), Shelley Harris (co-PI), Manisha Pahwa, Karin Hohenadel, John McLaughlin Collaborators: John Spinelli (BC Cancer Agency), Punam Pahwa & James Dosman (University of Sask.)	Core funding Complete in 2011	<ul> <li>Complete analyses</li> <li>Submit paper for publication</li> <li>Submit abstract to student session at the North American Congress of Epidemiology</li> </ul>
3. Health risks among nuclear workers in Ontario who have been exposed to internal sources of ionizing radiation: A feasibility study	OCRC: Loraine Marrett (Co-PI), Minh Do (Co-PI), John McLaughlin Collaborators: Elisabeth Cardis (CREAL, Barcelona)	WSIB RAC \$29,000 Complete in 2011	- Complete feasibility study
4. Ontario uranium miner cohort: Linkage with national mortality and cancer incidence files	OCRC: John McLaughlin (PI), Minh Do, Shelley Harris, Loraine Marrett Collaborators: Members of the National Uranium Miners Working Group	Canadian Nuclear Safety Commission \$150,000 (contract in negotiation) 2011-2012	<ul> <li>Finalize agreement for external funding</li> <li>Receive linkage from Statistics Canada</li> <li>Conduct analyses</li> </ul>
5. Systematic review of interventions for the prevention of occupational cancer	OCRC: Aaron Blair (PI), Paul Demers, Karin Hohenadel Collaborators: Kurt Straif (International Agency for Research on Cancer)	Core funding Complete in 2011	<ul> <li>Complete and submit manuscript for asbestos portion of the project</li> <li>Begin review of a second workplace carcinogen</li> </ul>

Research Project	OCRC Team and Collaborators	Funder, Budget and Timeline	Plans for 2011-2012
6. Women and minorities and other trends in occupational cancer research: An update	OCRC: Aaron Blair (PI), Karin Hohenadel, Marina Stegne, Priyanka Raj, Paul Demers Collaborators: Sheila Hoar Zahm (U.S. National Cancer Institute)	Core funding 2011-2012	<ul> <li>Complete review</li> <li>Prepare paper and abstract on inclusion</li> <li>women in occupational cancer research</li> <li>Prepare paper and abstract on trends in</li> <li>occupational cancer research</li> </ul>
7. Making the link between exposure and respiratory cancer in the clinical setting: What are the steps?	OCRC: Loraine Marrett (Co-PI), Marina Stegne Collaborators: Linn Holness (Co-PI), Irena Kudula (St. Michael's Hospital), John Oudyk (OHC OW)	WISB RAC \$30,000 Complete in 2011	- Complete pilot study - Prepare final report
8. Mesothelioma patterns and projections in Ontario and Canada	OCRC: Loraine Marrett (Co-PI), Paul Demers, Marina Stegne Collaborators: Mark Clements (Co-PI) (Australian National University)	Core funding Complete in 2011	- Prepare paper and abstract
9. Occupational exposure to diesel and gasoline engine emissions and the incidence of colorectal and bladder cancer in Canadian men	OCRC: Shelley Harris (PI) Collaborators: Paul Villeneuve (Health Canada, U of T), Kenneth Johnson (Public Health Agency of Canada), Marie-Elise Parent (Institut national de la recherché scientifique, Quebec)	WSIB RAC \$161,000 2011-2012	- Receive data set from PHAC and conduct analyses
10. Analysis of the MESU database and linkage with CAREX estimates	OCRC: Paul Demers (PI), Victoria Arrandale, Kate Jardine Collaborators: Cheryl Peters (CAREX Canada)	CAREX Canada and core funding	<ul> <li>Conduct analyses using MESU dataset</li> <li>Link with population estimate from CAREX</li> <li>Produce report on exposure to carcinogens in Ontario: 1981-1996</li> </ul>
11. History of occupational cancer research in Ontario and Canada	OCRC: Paul Demers (PI), Patricia Liu	Core funding Complete in 2011	- Complete review - Complete report



Research Project	OCRC Team and Collaborators	Funder, Budget and Timeline	Plans for 2011-2012
12. Synergy pooled lung cancer case- control study	OCRC: John McLaughlin (co-PI), Paul Demers (co- PI), Kate Jardine Collaborators: Kurt Straif (International Agency for Research on Cancer), many others	Core funding 2011-2012	- Collaborate with international investigators on pooled analyses
13. OCRC Stakeholder Survey	OCRC: Aaron Blair (PI), Karin Hohenadel, Loraine Marrett, Shelley Harris, John Mclaughlin, Paul Demers	Core funding 2011	- Publish report in journal
14. Interventions mediating health risks among shift workers: Current knowledge and workplace practices	OCRC: Paul Demers (PI), Marina Stegne, Karin Hohenadel Collaborators: Cam Mustard (IWH), Kristan Aronson (Queen's University)	Submitted to WSIB Bridging the Gap (10/2010)	<ul> <li>Awaiting funding</li> <li>Produce report on shiftwork interventions</li> <li>Host conference on shiftwork interventions</li> </ul>
15. Sinonasal cancer surveillance and exposure to sinonasal carcinogens in Ontario	OCRC: Paul Demers (PI), Loraine Marrett, Anne Harris, Karin Hohenadel Collaborators: Chris McLeod, Mieke Koehoorn, Cheryl Peters (University of British Columbia)	Core funding 2011	<ul> <li>Analyze tumour registry data</li> <li>Analyze MESU and CAREX exposure data</li> <li>Compare with parallel project in BC</li> </ul>
16. Linkage of 1991 Census (20% sample) with tumour registry data	<i>OCRC:</i> Paul Demers (PI), Loraine Marrett, Anne Harris, Karin Hohenadel <i>Collaborators:</i> Michael Tjepkema, Russell Wilkins, Paul Peters (Statistics Canada)	Initially core funded 2011-2012	<ul> <li>Linkage to be completed by StatsCan in Spring 2011</li> <li>Seek external funding for ongoing analyses</li> <li>Analyze by occupation and industry and by exposure using MESU &amp; CAREX</li> </ul>
17. Assessment of the human and economic costs of occupational can- cer	<i>OCRC:</i> Paul Demers (PI), Loraine Marrett, Anne Harris, Karin Hohenadel <i>Collaborators:</i> To be determined (TBD)	Initially core funded 2011-2012	<ul> <li>Perform initial review</li> <li>Seek external funding</li> <li>Host meeting in Toronto with investigators of similar projects in Alberta, Quebec, UK, United States</li> </ul>

Grant proposal	OCRC Team and Collaborators	Potential funder
Assessment of the human and economic costs of oc- cupational cancer	OCRC: Paul Demers (PI), Loraine Marrett, Anne Harris, Karin Hohenadel Collaborators: TBD	WSIB, CPAC (other funders being investigated)
Development of an Occupational Cancer surveillance Program for Ontario	OCRC: Paul Demers (PI), Loraine Marrett, Anne Harris, Karin Hohenadel Collaborators: TBD (Statistics Canada and others)	WSIB, Canadian Cancer Society Research Institute
Improving CAREX exposure estimates for high risk sectors and promoting knowledge translation and exchange	OCRC: Paul Demers (PI), Priyanka Raj Collaborators: Linn Holness (UofT, CREOD)	WSIB
Pooled analysis of the Three Canadian Uranium Workers' Cohorts	OCRC: John Mclaughlin (PI), Minh Do, Loraine Marrett, Paul Demers Collaborators: TBD	Canadian Nuclear Safety Commission

#### Table 2. Grant proposal submissions being considered for 2011-12\*

\* This list is preliminary in nature and we will be considering other projects for submission later in the year.

## Table 3. Planned and accepted papers and conference abstracts for 2011-12\*

Paper or abstract	Authors	Journal or Conference	Status
Priority issues in occupational cancer research: Ontario stakeholder perspectives. Chronic Diseases in Canada	Hohenadel K, Pichora E, Marrett L, Bukvic D, Brown J, Harris SA, Demers PA, Blair AE.	Chronic Diseases in Canada	Paper accepted
Exposure to multiple pesticides and risk of non- Hodgkin lymphoma in men from six Canadian provinces	Hohenadel K, Harris SA, McLaughlin JM, Spinelli JJ, Pahwa P, Dosman JA, Demers PA, Blair AE	International Journal of Environmental Research and Public Health	Paper to be submitted, Spring, 2011
Exposure to multiple pesticides & Hodgkin's lymphoma, soft tissue sarcoma & multiple myeloma in men	Harris SA, Hohenadel K, McLaughlin JM, Spinelli JJ, Pahwa P, Dosman JA, Demers PA, Blair AE	International Journal of Environmental Research and Public Health	Paper to be submitted, Spring, 2011
Exposure to pesticides and incidence of non- Hodgkin's lymphoma among asthmatics	Pahwa M, Harris S, Hohenadel K, McLaughlin JM, Spinelli JJ, Pahwa P, Dosman JA, Blair AE	Environmental Health Perspectives	Paper to be submitted, summer, 2011
Impact of asbestos-related interventions on rates of workplace lung cancer & mesothelioma: A systematic review	Blair AE, Hohenadel K, Demers PA, Straif K	Occupational and Environmental Medicine	Paper to be submitted, summer, 2011
Inclusion of women in occupational cancer research: 15 years later	Hohenadel K, Raj P, Stegne M, Bukvic D, Demers PA, Blair AE	Journal of Occupational and Environmental Medicine	Paper to be submitted, fall, 2011
Trends in occupational cancer research: 1994 – 2009	Demers PA, Raj P, Hohenadel K, Blair AE	Occupational and Environmental Medicine	Paper to be submitted, fall 2011
Trends in occupational cancer research in Canada: 1994 – 2009	Raj P, Hohenadel K, Blair AE, Demers PA	Canadian Journal of Public Health	Paper to be submitted, fall 2011
The IARC Evaluation of Wood Dust and Cancer	Demers PA	International Wood Dust Symposium, Portland, Oregon, May, 2011	Invited plenary presentation



Paper or abstract	Authors	Journal or Conference	Status
Exposure to multiple pesticides and risk of non- Hodgkin lymphoma in men from six Canadian provinces	Hohenadel K, Harris SA, McLaughlin JM, Spinelli JJ, Pahwa P, Dosman JA, Demers PA, Blair AE	North American Epidemiology Congress, Montreal, June 2011	Abstract submitted
Cancer Incidence among Nordic Firefighters	Demers PA, Martinsen JI, Weiderpass E, Kjaerheim K, Lynge E, Sparén P, Pukkala E	North American Epidemiology Congress, Montreal, June 2011	Abstract submitted
Effect of immunologic conditions on the relationship between pesticide exposure & non-Hodgkin lymphoma in Canadian men	Pahwa M, Harris S, Hohenadel K, McLaughlin JM, Spinelli JJ, Pahwa P, Dosman JA, Blair AE	Canadian Society for Epidemiology and Biostatistics student meeting, Montreal, June 2011	Abstract to be submitted, March 2011
Estimating occupational exposure to skin carcinogens in Canada	Peters CE, Nicol AM, Demers PA	Occupational & Environmental Exposure of Skin to Chemicals, Toronto, June, 2011	Abstract submitted
The impact of asbestos-related prevention efforts on lung cancer and mesothelioma incidence: A systematic review	Hohenadel K, Straif K, Demers PA, Blair AE.	International Symposium on Epidemiology & Occupational Health (EPICOH), Oxford, September, 2011	Abstract to be submitted, March 2011
To be Determined	Demers PA	EPICOH, Oxford, September, 2011	Abstract to be submitted, March 2011
To be Determined	Demers PA	International Society for Environmental Epidemiology, Barcelona, Sept, 2011	Abstract to be submitted, March 2011
Assessing the burden of asbestos-related lung cancer	Demers PA, Mcleod C, Mcleod K, Koehoorn M	American Public Health Association Annual Meeting, Washington D.C., 10/11	Invited panel presentation
Occupational Cancer Research	Demers PA	30 <sup>th</sup> Triennial Congress, International Commission on Occupational Health, Mexico City, March 2012	Invited plenary presentation

\* The exact titles and the order of authors have not been determined for papers or abstracts that have not been submitted.