



Three-Year Evaluation of the Occupational Cancer Research Centre (OCRC) *Funders' Review Panel Report*

January 2013

EXECUTIVE SUMMARY

Despite its short history, the OCRC has established itself as a major force in occupational cancer research in Canada. A major strength of the Centre is the charismatic vision and leadership of its Director, Dr. Paul Demers. One of the OCRC’s primary objectives is to build research capacity in occupational cancer research. Although it is relatively early to comment on progress, it appears to be succeeding in accomplishing this goal. The Centre has established an ambitious research program and has been able to bring together an experienced group of local senior scientists, recruited a capable and enthusiastic team of junior investigators and research associates, thus making the Centre an excellent academic platform for training the next generation of occupational cancer researchers. The Centre has secured advisory services from a well-grounded Steering Committee and from a respected body of scientific advisors. Dr. Desre Kramer was hired as Associate Director, a decision that provided the Centre with a vigorous partnership that allowed Dr. Demers to devote more time to his research agenda. Dr. Kramer also contributes substantial experience as an academic researcher with expertise in translating research evidence into interventions and policies that can decrease occupational risks to workers. The research productivity in the first three years is impressive both in quantity and in quality. Significant progress has also been made to move forward the knowledge translation agenda. It is patently clear that the OCRC has reached all of its mid-term goals and is well on track to accomplish the objectives of its five-year plan. Achieving clarity over the long term funding of the Centre is essential if these excellent results are to be sustained.

On the basis of OCRC’s three-year self-evaluation report and the site visit, the Funders’ Review Panel offers the following recommendations and comments for the consideration of the Centre and its funders. These recommendations and comments are not given in any particular chronological order, but it is clear that solving the funding challenge is the key to long term sustainability. Without resolving this challenge, many of the other recommendations cannot be effectively implemented.

1) Strengthen academic and research administration:

- Given the importance of capacity building and the ever increasing research workload within the Centre, the Panel recommends the establishment of a more robust administrative structure for the Centre. As it grows, recruiting an Assistant Director with responsibilities for academic and research activities will lessen the load on the Director and on the Associate Director, thus potentially removing barriers for the trainees’ experiences and facilitating the research and knowledge translation activities.
- The Panel also recommends that the Centre considers expanding on Dr. Kramer’s knowledge translation and community education role by hiring an occupational health expert (for example, an experienced occupational health physician, industrial hygienist, or occupational health nurse) who could help with the funders’ needs for information that can be translated into policies or advice for their constituencies. Alternatively, a multidisciplinary reference group could be established to provide the relevant input as required.

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- The panel also recommends an enhanced participation of the adjunct senior research staff (i.e., those based outside of the OCRC’s headquarters) in the students’ activities and in identifying research projects for the new students recruited locally for their practicum trajectory at the Centre.

2) Ease administrative barriers for research and staff retention:

- The Centre should work with its host organization and funders to identify alternatives to the current mechanism for travel and miscellaneous funding requests. For example, the Centre could use more of its academic links to the University of Toronto to process travel requisitions, which presumably would impose simpler administrative requirements.
- The existing administrative impediment for long-term staff recruitment and retention is also a critical bottleneck for growth. As it stands, the Centre can only serve as an “incubator” for research expertise, preparing relatively junior personnel for subsequent service elsewhere. The existing policy results from the lack of “hard-money”- funded positions, an issue that is inherent to the funding mechanisms in place.
- Long-term budget planning should consider the contribution of the host organization (CCO) in providing long-term retention for staff that proves to be indispensable to the mission of the Centre.

3) Enhance the value of the Centre to its funders and to the community:

- The Panel recommends that the Centre should seek new roles and thus enhance its value to present and future funders, as well as to the community. This could be achieved by enhancing the scope of research and knowledge translation activities and by monitoring the perception that the community and potential new funders have regarding the services that the Centre provides. Ultimately, the goal should be to increase the appeal of the Centre’s projects to potential funders.
- Given the array of methodological skills and expertise available to the Centre, the Panel recommends that the research and education activities should be expanded to include the assessment of environmental (community) health impacts of workplace carcinogens.
- The Centre has a wealth of expertise in assessing the contribution of workplace risks and hazards in the context of diseases, such as cancer, which have multifactorial etiology. It is thus uniquely qualified in assisting decisions concerning entitlement for workers’ compensation and in developing methodologies to better quantify the workplace contribution to cancer causation.
- The Centre might look to increase industry, trade union, or other third party involvement in funding, with appropriate safeguards in place to ensure academic independence, through outreach and by playing an advisory role. Involvement of these parties as stakeholders in the Centre’s activities and funding could also be achieved via grants submitted to the Natural Sciences and Engineering Research Council of Canada (NSERC), which permit partnership

arrangements. This is unlikely, however, to address the fundamental problem of stable long term core funding.

4) Seek long-term sustainability via an enhanced footprint:

- It is the Funders’ Review Panel’s opinion and recommendation that questions on the future sustainability be amply discussed with OCRC’s Steering Committee and the funders well ahead of the end of the five-year funding cycle in 2014. Furthermore, the funders’ future funding relationships with the OCRC need to be clarified.
- Long-term sustainability will also hinge upon the opportunity to establish an enhanced collaborative role with other national and international organizations, such as the Public Health Agency of Canada, the McLaughlin Institute, the Canadian Centre for Occupational Health and Safety, the Association of Workers Compensation Boards of Canada, the International Agency for Research on Cancer (IARC), the World Health Organization (WHO), and International Labour Organization (ILO).
- Consideration should also be given, working with the funding agencies, to exploring the opportunities for the OCRC to operate as a research centre with a national scope. This change in scope would further enhance credibility and potentially open doors to more funding opportunities, enhanced partnerships with organizations such as those noted in the previous bullet, and added recognition for the province of Ontario as a leader in this field.

INTRODUCTION

The Occupational Cancer Research Centre (OCRC) was established in 2009 through a five-year funding agreement involving the Ontario Workplace Safety and Insurance Board Research Advisory Council (WSIB-RAC), Cancer Care Ontario (CCO) and the Ontario Division of the Canadian Cancer Society (CCS). The Centre is housed at CCO.

Under the terms of the agreement, the WSIB reviews the performance of the Centre annually, with a more comprehensive evaluation at the end of the third year, and a final evaluation at the end of five years. The reviews are overseen by the WSIB’s multi-stakeholder Research Advisory Council (RAC).

The present report constitutes part of the third-year evaluation.

To conduct the evaluation, the RAC’s Centres Committee and representatives of the other funding partners (CCO and CCS) appointed a three-member Funders’ Review Panel, consisting of the following members:

- **Dr. Eduardo Franco**, Panel Chair and James McGill Professor in the Departments of Oncology and of Epidemiology & Biostatistics, Director, Division of Cancer Epidemiology, and Interim Chair, Department of Oncology, at McGill University's Faculty of Medicine, in Montreal, Canada.
- **Dr. Jeremy Beach**, Associate Professor and Director of the Occupational Medicine Residency Program, University of Alberta. Prior to his work at the University of Alberta, Dr. Beach has combined work in Occupational Medicine in academia at the University of Birmingham and Monash University in Australia; work in industry, becoming Senior Medical Officer with a major multinational company; and the health service, working as a specialist in occupational medicine and occupational lung disease in hospitals in Birmingham and Bradford, UK.
- **Dr. Ian Arnold**, Adjunct Professor, Master of Science Program in Occupational Health, Faculty of Medicine, McGill University. Dr. Arnold is a charter member and past Chairperson (a position held until February of 2012), of the Workforce Advisory Committee of the Mental Health Commission of Canada. He is also a Board member of the Mach – Gaensslen Foundation (a foundation funding medical research and education in the fields of cardiology, psychiatry, and oncology) and has extensive senior managerial experience with the Alberta Government, Dow, Noranda, and Alcan.

The mandate of the Review Panel is to review the Centre’s three-year self-evaluation report, conduct a site visit, and report its findings to the three funding partners.

The purpose of the three-year review is to provide the Centre with feedback, guidance, and recommendations to improve the Centre’s functioning. The Panel’s report will not form the basis of continued funding decisions.

The Centre’s Objectives

The Centre’s objectives are:

- To build a research program into the prevention of occupational cancer
- To develop research capacity by building the base of researchers and students involved in occupational cancer research
- To deliver and exchange new knowledge so that it is accessible to workplace decision-makers
- To build a sustainable Centre.

The Centre’s Achievements

In the three years since commencing operations, OCRC has:

- Secured advisory services from a well-grounded Steering Committee and from a respected body of scientific advisors.
- Recruited Dr. Aaron Blair as the Interim Director, which provided the initial impetus for the launching of activities at the Centre.
- Recruited one of the most respected names in occupational cancer epidemiology as its permanent Director, Dr. Paul Demers.
- Created a strategic plan. The Centre’s Steering Committee established a Five-Year Strategic Plan with four strategic goals outlined above.
- Established an ambitious research program. Dr. Demers brought a clear and ambitious research program to the Centre that capitalized on the strengths at CCO’s research units.
- Hired an Associate Director and expanded research capacity. Dr. Desre Kramer was hired as Associate Director in June 2011 and became full-time in January 2012. Dr. Kramer’s PhD is in adult education, and she has a strong background in occupational health and safety.
- Recruited young investigators and clinical researchers and developed a vigorous training agenda by supporting, mentoring and funding students at the Masters and Doctoral levels.
- Produced 33 original papers that were published, are currently in press, or were submitted to prominent specialty journals. Another 20 non-refereed papers have appeared or will appear in biomedical journals or monographs. The research team also lists several manuscripts currently in preparation. Three book chapters are also currently in press.
- Actively submitted its research findings to national and international conferences. A total of 128 such presentations have been made by Dr. Demers and his colleagues, many of whom were invited to give oral communications.

Site Visit

The Funders’ Review Panel first reviewed the three-year self-evaluation report submitted by OCRC. The Panel held a conference call on September 24 to discuss the evaluation criteria and assignments. The Panel then visited OCRC at CCO on October 11, 2012 and met with the following groups and individuals:

- OCRC Director, **Paul Demers**, OCRC Associate Director, **Desre Kramer**

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- OCRC Staff: **Anne Del Bianco** (Senior Research Associate), **Anna Kone** (Senior Research Associate), **Priyanka Raj** (Research Associate), **Kate Jardine** (Research Associate), **Kris Moore** (Research Associate), **Manisha Pahwa** (Research Associate), **Marjorie Pagcu** (Senior Administrative Assistant)
- OCRC researchers: **Shelley Harris** (Cancer Care Ontario), **John McLaughlin** (Samuel Lunenfeld Research Institute and Public Health Ontario), **Minh Do** (Public Health Agency of Canada), **Anne Harris** (Ryerson University, by phone)
- OCRC practicum students from University of Toronto: **Linda Kachuri**, **Garthika Navaranjan**, **Joanne Kim**, **Trevor Van Ingen**, **Marcella Jones**
- OCRC Steering Committee members and partners: **Jean-Yves Savoie** (Chair, OCRC Steering Committee, by phone), **Gary Liss** (Ministry of Labour), **Andy King** (United Steel Workers Union, retired), **Anthony Miller** (University of Toronto), **Luba Slatkovska** (Canadian Cancer Society), **Carol Bishop** (Canadian Cancer Society Research Institute), **Terrence Sullivan** (WSIB-RAC)
- Cancer Care Ontario (Host Institution) senior representatives, **Linda Rabeneck** (Vice President, Prevention and Cancer Control) and **Loraine Marrett** (Senior Scientist & Director, Surveillance and Prevention Unit).

The Panel also toured the physical space where the OCRC’s staff work. Luba Slatkovska and Carol Bishop were present at most meetings as observers. The agenda for the site visit can be found in Appendix 1. Notes pertaining to what the Panel heard during the proceedings can be found in Appendix 2.

THE PANEL’S IMPRESSIONS

Despite its short history, the OCRC has established itself as a major force in occupational cancer research in Canada. Dr. Aaron Blair was recruited as the initial Interim Director, and his appointment provided the initial impetus for the launching of activities at the Centre. The Centre was also fortunate to appoint a well-grounded and knowledgeable Steering Committee as well as a respected body of scientific advisors. It subsequently recruited one of the most respected names in occupational cancer epidemiology as its permanent Director, Dr. Paul Demers. The latter brought a clear and ambitious research program to the Centre that capitalized on the strengths at CCO’s research units. Dr. Demers was able to coalesce the ongoing research activities of CCO related to occupational cancer into one cohesive program. He brought his own portfolio of successful research and collaborative links with the Canadian Partnership Against Cancer (CPAC), with the Canadian Cancer Society (CCS) and its Research Institute (CCSRI), and his considerable credibility with the occupational health community of stakeholders in Ontario and across Canada.

Personnel:

During the first months of his tenure at the OCRC Dr. Demers had to fill many roles and these were consequently very taxing on his time and energy. He subsequently hired Dr. Desre Kramer as Associate Director, a decision that provided the Centre with a vigorous partnership that allowed Dr. Demers to devote more time to his research agenda. Dr. Kramer is able to assist in some of the administrative functions required to navigate the administrative complexities of the

fledgling OCRC. Dr. Kramer also contributes substantial experience as an academic researcher with expertise in translating research evidence into interventions and policies that can decrease occupational risks to workers.

The OCRC has grown substantially. It boasts an enthusiastic team of research associates with excellent advanced training in occupational cancer and related areas. OCRC relies on the unconditional support and in-kind dedication by a local team of accomplished cancer epidemiologists at CCO and the Public Health Agency of Canada (PHAC). It recruited new junior scientists with a strong commitment and track records on occupational cancer. OCRC also enjoys the confidence of its Steering Committee and Advisory Board.

One of the OCRC’s primary objectives is to build research capacity in occupational cancer research. Although it is relatively early to comment on progress, it appears to be succeeding in accomplishing this goal. Academic links with University of Toronto’s Dalla Lana School of Public Health have enabled Dr. Demers and his colleagues to attract graduate students to advance the Centre’s research agenda while benefitting from the residency period needed to fulfill the requirements of their practicum. Altogether, 12 such students have passed through the OCRC. Five of them are currently associated with the Centre and two have been recently hired as research associates.

Research:

The OCRC’s research agenda has three main components: (i) etiologic research with the goal of identifying occupational causes of cancer (8 projects), (ii) surveillance research that aims at monitoring trends in cancer hazards and risks and their consequences in the Ontario work environment (9 projects), and (iii) prevention and intervention research with a focus on reducing exposure to such risks and to lead to better industrial hygiene policies (17 projects). The studies carried out by OCRC’s investigators are funded intramurally via a consortium of the three main funders (CCO, WSIB, and CCS-Ontario Division and CCSRI), as well as by independent extramural funding via grant applications to the CCSRI, CIHR, WSIB, and other agencies. Among the latter type of grants, eight sustain directly the OCRC’s research operation, whereas 12 others provide assistance to OCRC projects but are housed in other institutions.

During the first 3 years, the Centre has produced 33 original papers that were published, are currently in press, or were submitted to prominent specialty journals. Another 20 non-refereed papers have appeared or will appear in biomedical journals or monographs. The research team also lists several manuscripts currently in preparation. Three book chapters are also currently in press.

The OCRC team has also been active in submitting its research findings to national and international conferences. A total of 128 such presentations have been made by Dr. Demers and his colleagues, many of which as invited oral communications.

In all, the research productivity of the Centre is impressive by any metric. The research priorities are judiciously chosen, are based on state-of-the-art methods, and take full advantage of the collaborative links across Canada that Dr. Demers has built during his career. In addition to the

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discovery research activities, the Centre also excels in educational and knowledge translation work that is spearheaded by a truly trans- and multi-disciplinary team assembled by Dr. Demers.

Capacity Building:

One of the main targets of the Centre is to build capacity in occupational cancer research. There are clearly lots of good examples of capacity building occurring. One senior research associate from OCRC has recently joined the faculty of Ryerson University. Research associates are moving through to senior research associate positions. Several students have also become research associates. There are a large number of current students who all find the experience offered is useful, some of whom reported that they are interested in developing careers in the area of occupational cancer research as a direct consequence of being able to work at OCRC.

There is good support institutionally for capacity building. All the stakeholders recognize its importance, as does the senior staff of OCRC. Considerable time and effort is devoted by senior staff to mentoring and teaching of junior staff and students. All the Associate staff are enthusiastic about this part of their work and see teaching as an integral part of their contribution to the Centre.

The Panel was given examples by current students of some of the teaching and mentoring occurring, and these seemed to be both relevant and well thought out. All the students reported having clear written learning objectives and helpful formative evaluations as they progressed through their work at the Centre.

There are some practical difficulties which can impact on this aspect of the Centre’s work. The Panel was given the example of a student who had an abstract accepted for a large international conference in Edinburgh but who was eventually unable to attend because of difficulties with getting travel approval. Other examples of difficulties with approval of travel expenses were also given to the Panel. If the approval process could be streamlined this would clearly be of help to all concerned in terms of achieving the Centre’s goals in this area. Attendance at international meetings is essential for the students and junior staff in terms of developing their skills as well as their careers, and of course helps the standing of the Centre also. To prevent a person attending such a meeting seems counterproductive in many respects. This is also discussed more broadly below under ‘Challenges’.

While the Centre has been very successful in capacity building among students and junior academics, some difficulties were identified in attracting mid-career and senior academics into positions at the OCRC, and hence building capacity in this important area. The somewhat tenuous nature of current funding and uncertainty over future development of the OCRC makes it difficult to attract people looking to establish themselves in longer term positions. This too is discussed more fully in the section on challenges below.

Challenges:

A key challenge to Dr. Demers and his team comes from their own success in making the OCRC meet or exceed the expectations of its founders. The Centre has accrued a critical mass of

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scientists and support personnel that needs salary support, space, and academic links to maintain its activities. At the end of the five-year funding cycle in 2014, the existing funders (CCO, CCS, and WSIB) will have to decide the direction that they will want Dr. Demers to provide to what is arguably a very successful operation. Achieving clarity over the long term funding of the Centre is essential. It was mentioned at the site visit by WSIB representatives that funding priorities may change in the future, as funding and administration of research functions move to the Ontario Ministry of Labour (MOL). Currently, WSIB’s contribution to the budget is considerable, and if it is not continued this will cause considerable difficulties. Even if the funding is continued, the uncertainty and inability to offer employment beyond current funding periods impedes the development of the Centre. If the MOL shifts funding priorities entirely to independent research projects, thus decreasing or even interrupting important financial assistance to the core operation of the OCRC, it is unclear whether other funders will be willing or able to jointly supplement their funding to avoid any deficits.

Pertinent to the above concern is the scope of the Centre’s operation. At present, OCRC’s activities produce dividends that not only benefit Ontario but are also clearly of national and potentially international public health interest. Rescaling the Centre’s standing as a more national entity would be favoured by OCRC’s historical links with the Canadian Partnership Against Cancer (CPAC) (e.g., CAREX funding), Dr. Demers’ collaboration with research teams in other provinces, and CCS’s own national portfolio of cancer prevention activities. It is possible that funding from PHAC and CPAC could supplement other sources and help establish OCRC as a more pan-Canadian organization, perhaps under the umbrella of the association of provincial workplace safety and insurance agencies. It is unclear whether current funders would be in favour of such a change and so considerable thought and consultation would be needed before developing in this way. It is of paramount importance that these questions be amply discussed with OCRC’s Steering Committee and the funders well ahead of the end of the five-year funding cycle in 2014, especially in view of the concerns about sustainability indicated in the previous paragraph.

The Review Panel also identified another issue that has impaired the Centre’s researchers in conducting their important mission of divulging scientific findings. Dr. Demers and some of his colleagues and students pointed out that the administrative process for approving travel related to OCRC business was extremely complex and slow. Conference travel is sometimes approved only after key deadlines have passed. Dr. Demers has had to use his own vacation time to be able to attend key conferences in which he presented OCRC’s research findings. Students’ exposure to and ability to present in specialty conferences, an important element in their training, has been severely curtailed because of the requirements imposed by the Ontario government on CCO – even when travel/knowledge exchange funding was included as part of a specific grant allocation. The Funders’ Review Panel proposes that perhaps the Centre consider using more of its academic links to the University of Toronto to process travel requisitions via the latter, which presumably will impose simpler administrative requirements.

Another key challenge stems from the “soft funding” nature of staffing policies. Funding uncertainty has led to recruitment and retention issues. It seems that no employee can be hired on contract beyond March 31, 2014, when the current core funding ends (unless they are hired as permanent CCO staff). This in turn may lead to decreased productivity and stumbling morale.

Furthermore, contractual arrangements permit at most two renewals (i.e. three contracts), a restriction that is detrimental to long term planning, productivity, and staff morale. In all, the impossibility of making long-term contractual arrangements adversely impacts on the Centre’s ability to carry out longer term research studies, which are often needed in the world of cancer epidemiology.

Conclusion:

It is patently clear that the OCRC has reached all of its mid-term goals and is well on track to accomplish the objectives of its five-year plan. The major strength of the Centre is the charismatic vision and leadership of its Director, Dr. Paul Demers. He has been able to bring together an experienced group of local senior scientists, recruited a capable and enthusiastic team of junior investigators and research associates, and made the Centre an excellent academic platform for training the next generation of occupational cancer researchers. The research productivity in the first three years is impressive both in quantity and in quality. The knowledge translation activities are also superior.

Obviously, major challenges lie ahead. The long-term sustainability of the Centre may well depend on funding issues now being clarified for the period after the current funding cycle is complete. To attract and retain current and potential future staff and students, which is vital to the mission of the Centre, clarity and certainty over funding are essential. At present, CCO provides a resource-rich environment for the OCRC’s operation but the uncertainty of future funding from the MOL is a major concern.

THE PANEL’S RECOMMENDATIONS

On the basis of OCRC’s three-year self-evaluation report and the site visit, the Funders’ Review Panel offers the following recommendations and comments for the consideration of the Centre and its funders. These recommendations and comments are not given in any particular chronological order, but it is clear that solving the funding challenge is the key to long term sustainability. Without resolving this challenge, many of the other recommendations cannot be effectively implemented.

1) Strengthen academic and research administration:

- Given the importance of capacity building and the ever increasing research workload within the Centre, the Panel recommends the establishment of a more robust administrative structure for the Centre. As it grows, recruiting an Assistant Director with responsibilities for academic and research activities will lessen the load on the Director and on the Associate Director, thus potentially removing barriers for the trainees’ experiences and facilitating the research and knowledge translation activities.
- The Panel also recommends that the Centre considers expanding on Dr. Kramer’s knowledge translation and community education role by hiring an occupational health expert (for example, an experienced occupational health physician, industrial hygienist, or occupational health nurse) who could help with the funders’ needs for information that can be translated

into policies or advice for their constituencies. Alternatively, a multidisciplinary reference group could be established to provide the relevant input as required.

- The panel also recommends an enhanced participation of the adjunct senior research staff (i.e., those based outside of the OCRC’s headquarters) in the students’ activities and in identifying research projects for the new students recruited locally for their practicum trajectory at the Centre.

2) Ease administrative barriers for research and staff retention:

- The Centre should work with its host organization and funders to identify alternatives to the current mechanism for travel and miscellaneous funding requests. For example, the Centre could use more of its academic links to the University of Toronto to process travel requisitions, which presumably would impose simpler administrative requirements.
- The existing administrative impediment for long-term staff recruitment and retention is also a critical bottleneck for growth. As it stands, the Centre can only serve as an “incubator” for research expertise, preparing relatively junior personnel for subsequent service elsewhere. The existing policy results from the lack of “hard-money”- funded positions, an issue that is inherent to the funding mechanisms in place.
- Long-term budget planning should consider the contribution of the host organization (CCO) in providing long-term retention for staff that proves to be indispensable to the mission of the Centre.

3) Enhance the value of the Centre to its funders and to the community:

- The Panel recommends that the Centre should seek new roles and thus enhance its value to present and future funders, as well as to the community. This could be achieved by enhancing the scope of research and knowledge translation activities and by monitoring the perception that the community and potential new funders have regarding the services that the Centre provides. Ultimately, the goal should be to increase the appeal of the Centre’s projects to potential funders.
- Given the array of methodological skills and expertise available to the Centre, the Panel recommends that the research and education activities should be expanded to include the assessment of environmental (community) health impacts of workplace carcinogens.
- The Centre has a wealth of expertise in assessing the contribution of workplace risks and hazards in the context of diseases, such as cancer, which have multifactorial etiology. It is thus uniquely qualified in assisting decisions concerning entitlement for workers’ compensation and in developing methodologies to better quantify the workplace contribution to cancer causation.
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outreach and by playing an advisory role. Involvement of these parties as stakeholders in the Centre’s activities and funding could also be achieved via grants submitted to the Natural Sciences and Engineering Research Council of Canada (NSERC), which permit partnership arrangements. This is unlikely, however, to address the fundamental problem of stable long term core funding.

4) Seek long-term sustainability via an enhanced footprint:

- It is the Funders’ Review Panel’s opinion and recommendation that questions on the future sustainability be amply discussed with OCRC’s Steering Committee and the funders well ahead of the end of the five-year funding cycle in 2014. Furthermore, the funders’ future funding relationships with the OCRC need to be clarified.
- Long-term sustainability will also hinge upon the opportunity to establish an enhanced collaborative role with other national and international organizations, such as the Public Health Agency of Canada, the McLaughlin Institute, the Canadian Centre for Occupational Health and Safety, the Association of Workers Compensation Boards of Canada, the International Agency for Research on Cancer (IARC), the World Health Organization (WHO), and International Labour Organization (ILO).
- Consideration should also be given, working with the funding agencies, to exploring the opportunities for the OCRC to operate as a research centre with a national scope. This change in scope would further enhance credibility and potentially open doors to more funding opportunities, enhanced partnerships with organizations such as those noted in the previous bullet, and added recognition for the province of Ontario as a leader in this field.

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APPENDIX 1

Agenda for Occupational Cancer Research Centre (OCRC) 3-Year Evaluation Site Visit

**October 11, 2012
505 University Avenue, Toronto, Ontario**

7:30-8:30	Breakfast Meeting of Funders’ Review Panel (before Site Visit starts) <i>Room:</i> 16-08 on 16 th floor <i>Invitees/Notes:</i> <ul style="list-style-type: none">• Panel Members, Terry Sullivan, WSIB Staff
8:30-9:00	Meeting with Chair of OCRC’s Steering Committee <i>Room:</i> 16-08 <i>Invitees/Notes:</i> <ul style="list-style-type: none">• Chair: Jean-Yves Savoie (by phone)• Panel Members, WSIB Staff
9:00-10:00	Meeting with OCRC Directors & Presentation to the Funders’ Review Panel summarizing the value OCRC adds to the field and plans for the next 2-3 years <i>Room:</i> 16-08 <i>Invitees/Notes:</i> <ul style="list-style-type: none">• Paul Demers (OCRC Director), Desre Kramer (OCRC Associate Director)• Panel Members, WSIB Staff• Observers: Luba Slatkovska, Carol Bishop (Canadian Cancer Society)
10:00-11:00	Meeting with OCRC Staff <i>Room:</i> 16-08 <i>Invitees/Notes:</i> <ul style="list-style-type: none">• Staff: Anne Del Bianco, Anna Kone, Priyanka Raj, Kate Jardine, Kris Moore, Manisha Pahwa, Marjorie Pagcu• Panel Members, WSIB Staff• Observers: Luba, Carol <i>Excluded:</i> Paul, Desre
11:00-11:45	Meeting with OCRC Steering Committee Members and Partners <i>Room:</i> 16-08 <i>Invitees/Notes:</i> <ul style="list-style-type: none">• Steering Committee & Partners: Gary Liss, Andy King, Roland Hosein, Anthony Miller, Luba Slatkovska, Carol Bishop• Panel Members, WSIB Staff <i>Excluded:</i> Paul, Desre

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11:45-12:30	<p>Meeting with OCRC Researchers</p> <p><i>Room:</i> 16-08</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Researchers: Shelley Harris, John McLaughlin, Minh Do, Paul Villeneuve (by phone), Anne Harris (by phone) • Panel Members, WSIB Staff • Observers: Luba, Carol <p><i>Excluded:</i> Paul, Desre</p>
12:30-1:30	<p>Lunch with OCRC Students</p> <p><i>Room:</i> 16-08</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Students: Linda Kachuri, Garthika Navaranjan, Joanne Kim, Trevor Van Ingen, Marcella Jones • Panel Members, WSIB Staff • Observers: Luba, Carol <p><i>Excluded:</i> Paul, Desre</p>
1:30-2:00	<p>Meeting with Senior Representatives of Host Institution (Cancer Care Ontario (CCO))</p> <p><i>Room:</i> 16-08</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Linda Rabeneck (VP, Prevention and Cancer Control, CCO), Loraine Marrett (Sr. Scientist & Director, Surveillance Unit, CCO) • Panel Members, WSIB Staff • Observers: Luba, Carol <p><i>Excluded:</i> Paul, Desre</p>
2:00–2:15	<p>Tour of OCRC Facilities</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Panel Members, WSIB Staff • Observers: Luba, Carol
2:15-3:45	<p>Funders’ Review Panel Debrief (<i>in camera</i>)</p> <p><i>Room:</i> 16-08</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Panel Members, WSIB Staff
3:45-4:30	<p>Panel’s Debrief with OCRC Directors</p> <p><i>Room:</i> 16-08</p> <p><i>Invitees/Notes:</i></p> <ul style="list-style-type: none"> • Paul, Desre • Panel Members, Terry, WSIB Staff • Observers: Luba, Carol

APPENDIX 2

WHAT THE PANEL HEARD

In its meeting with the Chair of the OCRC Steering Committee, the Panel asked the following main questions:

- *How has the OCRC evolved and what does the future hold?*
- *How will Paul Demers be retained as a high profile academic?*
- *Are there any strategies in place for succession planning?*
- *Are there any concerns regarding formal supervision or funding for students?*
- *Are there plans in place to ensure the sustainability of the OCRC?*

The Panel heard:

- The WSIB RAC had a list of priorities, one was cancer research. However, no grant applications were received due to the lack of resources in Ontario. Therefore, the RAC engaged with other groups (e.g. CCO, researchers) which provided advice and support for the creation of a centre. The feedback from stakeholders was very positive. The Centre first recruited Dr. Aaron Blair. This gave quality to the Centre which began evolving in action early on in the process. This helped to recruit Dr. Paul Demers. Since he arrived the Centre has developed quickly.
- OCRC is not solely dedicated to research. The Centre has collaborations at the local, national, and international levels and serves as a source of knowledge sharing, research priority setting, and policy development. OCRC is unique in Canada.
- A few challenges are on the horizon: 1) sustainability and uncertainty about the WSIB’s role in the future; and 2) recruitment of senior researchers. Possible options to address challenges may involve collaborating scientists or Dalla Lana School of Public Health faculty, or to engage with policy makers, agencies or workers. In Ontario, engagement with industry is more difficult (less structured).
- Overall comment: big changes are ahead for OCRC over the next three years.
- A problem with all centres is keeping their leadership. However, OCRC is growing fast and Dr. Savoie is optimistic that Dr. Demers will stay.
- Succession planning will be more of an issue over the next five years.
- Student recruitment has been positive. Funding is provided by OCRC and students are encouraged to apply for external funding.
- The hope is for OCRC to become a national Centre and this will greatly improve prospects for sustainability.

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In its meeting with the OCRC Directors, the Panel asked the following questions:

- *What are the challenges for knowledge translation?*
- *What are your concerns beyond 2014 with respect to sustainability?*
- *Any obstacles to carrying out your personal vision for the Centre?*
- *What is your approach to capacity building? Who is responsible for capacity building?*
- *Are there specific funds or resources set aside for capacity building?*
- *Who is the contact for practicum students?*

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- *Are there any problems associated with not being part of the University of Toronto?*
- *Do you have any formal liaisons with international collaborators?*

The Panel heard:

- A presentation by Dr. Paul Demers outlined the Centre’s recent activities since the three-year report was published.
- The need for a centre came from the decline in occupational cancer research, as measured by the number of published occupational studies in Canada, as well as a decrease in the size of the occupational cancer research community.
- There are still a large number of potentially exposed workers in Ontario. Workplace fatalities resulting from compensated cancers have surpassed traumatic injuries.
- OCRC is looking to set their research priorities broadly. A stakeholder survey helped to inform Canadian priorities but the Centre is also interested in the research agendas of international organizations such as IARC and NIOSH.
- Over the last five months, OCRC has submitted eight grants to agencies including CCSRI, WSIB RAC, and CIHR, covering many areas of research including: male breast cancer, electromagnetic fields (EMF), silica and lung cancer, two new surveillance projects, and prevention projects. In addition, eight new papers have been submitted.
- OCRC is building capacity with new students (three student placements, retention of three former students, addition of two full-time and two part-time staff, and a former post-doc who still maintains a relationship with OCRC. In addition, many presentations are provided for stakeholders and professional groups (CCS-ON/CCS/CCSRI), work is done involving public policy representatives and advocacy activities. This includes presentations at the WSIB, MOL and within CCO to build relations with the surveillance and prevention units.
- Recent progress towards building a sustainable centre includes receiving competitive funding including an internal award from CCO.
- The majority of initial projects at the Centre made use of previously collected data, which did not require a large financial investment and allowed for faster publications. Moving forward, efforts will be focused on initiating longer term studies, cross-Canada work and pooled databases.
- Efforts are also being made to link with collaborators provincially, nationally, and internationally. OCRC is looking towards expanding surveillance work, descriptive epidemiology projects, exposure surveillance, spatial analyses of data, intervention studies to promote change, burden of cancer, and building research capacity with students outside of the University of Toronto (U of T).
- OCRC would like to add more scientists and recruit more affiliated scientists.
- A primary concern is the shift of research funds from the WSIB to the MOL. However, the Centre is hoping to move towards being a national centre in the next five years. This will require major resources.
- Beyond 2014, Dr. Paul Demers is confident that their primary sources of funding will continue. OCRC is now recognized as a unit within CCO, receiving increasing support and resources, including a new space with room for expansion.
- Thus far, Dr. Demers feels his vision for the Centre has been supported.
- Capacity building has been a joint responsibility between Dr. Demers and Dr. Kramer.

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- Practicum students are in contact with Dr. Demers and Dr. Kramer. In addition, associated scientists/staff serve as internal mentors. Students are provided with a strong learning environment including weekly seminars, monthly journal clubs, and a budget for conferences or development courses.
- Being independent from U of T has not been a challenge. OCRC is seen as a neutral centre, and still in close proximity to the U of T and other major centres. However, OCRC does not have the visibility of other major centres and they are working on this.
- OCRC has some international collaborations and liaisons including some IARC co-investigators and the Nordic Finnish Institute of Occupational Health.

In its meeting with the OCRC staff, the Panel asked the following questions:

- *What attracted you to the OCRC and made you want to join?*
- *How would you describe your potential for producing research? Have you been actively involved in terms of publishing and authoring papers? Do you see it as an opportunity or hindrance?*
- *What are your expectations on presenting your results?*
- *How many are planning to stay in the field of occupational epidemiology research?*
- *Do you foresee any emerging threats to the Centre?*
- *Is there a desire for this organization to be part of a university?*
- *Are there opportunities to pursue PhD degrees?*
- *Did you receive an orientation to the Centre?*
- *Are you encouraged to submit grant applications?*
- *Are there regular opportunities to improve your skills?*

The Panel heard:

- The staff was attracted to the OCRC for the collaborative, interdisciplinary working environment. OCRC was described as having much potential for growth, and was viewed as a non-academic place to do applied research.
- Among those present, two staff members had either published papers or were working to submit a paper.
- Most were eager to present study results, but identified significant administrative challenges to presenting at conferences that require travel.
- All staff were interested in continuing work in the field of occupational epidemiology.
- Another identified threat to the Centre was the lack of permanent positions and temporary positions that expire after three contracts. This has led to the loss of some staff and acts as a barrier to the recruitment of new senior staff.
- OCRC is supportive of individuals pursuing PhD education.
- A three hour orientation was provided by CCO to new staff.
- Most are encouraged to become involved with grant applications. Grants include funds for knowledge translation (i.e. conference travel) but administrative barriers exist rather than financial ones.

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- Opportunities are regularly present to develop skills. This includes grant writing experience, opportunities for collaboration and budgeting.

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In its meeting with the OCRC Steering Committee Members and Partners, the Panel asked the following questions:

- *What are your general impressions of the Centre? Describe the positives and the threats?*
- *Has there been sufficient progress?*
- *Have there been changes in the level of government support?*
- *Are there any plans to have occupational medicine physicians/residents spend time here?*

The Panel heard:

- The burden of occupational cancer continues to be a major issue for the WSIB. OCRC is a necessary organization with incredible staff.
- What is needed is for the Centre to establish permanency either through CCO or the University of Toronto.
- OCRC’s progress has been extraordinary given the support available and short duration of its existence.
- Level of government support appears to be uncertain. Potential threat is loss of research funds.
- OCRC, and specifically Dr. Paul Demers, was praised for establishing strong relationships with collaborators, creatively seeking funds, and making himself available for presentations and raising awareness.
- Partners have been impressed by Dr. Demers and Dr. Kramer’s initiatives to build relationships and their abilities to gain research funding. In addition, OCRC has helped to present opportunities to major donors via CCS and relationships are getting stronger at the national level.

In its meeting with the OCRC researchers, the Panel asked the following questions:

- *Please comment on your relationship with OCRC.*
- *How did work with OCRC contribute to your faculty position?*
- *Since OCRC is outside of the university environment, are there issues related to access to formal training at the post-doctoral level?*
- *Capacity building has been identified as a recurring problem, what are your views?*
- *Do you see OCRC being an “incubator” or a permanent institution with long term staff?*
- *How reliant is the Centre on the work of Dr. Paul Demers for its sustainability? How would the Centre operate in his absence?*
- *The Panel has concerns about career path development, what could OCRC offer new scientists?*

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The Panel heard:

- There have been great accomplishments by a small team in a short amount of time.
- There is a concern about whether the individual funders’ needs would be met.
- OCRC’s strengths include its connections to other institutions in the vicinity and the opportunity to work with the students.
- OCRC’s placement outside of academia was seen as beneficial.
- Prior to the creation of OCRC, there was no other place for occupational cancer research to be conducted and no place for trainees to do occupational and environmental health research.
- Canada is in great need for a permanent institution to conduct occupational cancer research. However, OCRC’s value is also as an incubator for occupational cancer researchers.
- It would be ideal to hire more internal scientists as there is an issue with retaining staff long term due to lack of permanent positions.
- Dr. Kramer has relieved much of the administrative burden from Dr. Demers. However, the Centre would benefit from hiring an Associate Director on the science side.

In its meeting with the OCRC students, the Panel asked the following questions:

- *Who developed and approved your learning objectives?*
- *How do you inform policy makers?*
- *How long are practicums and how are they negotiated? Are students given the opportunity to evaluate the practicum?*
- *How competitive is OCRC for attracting students? If funding wasn’t an issue, could OCRC host more students?*
- *When time to present research, how easy is this?*
- *Who provides mentorship at OCRC?*
- *Was a course on cancer epidemiology provided through OCRC?*
- *Do you have any suggestions for OCRC improvement?*
- *Who would be interested in completing a PhD?*
- *Have there been problems negotiating manuscript authorship?*

The Panel heard:

- Students developed learning objectives based on the University of Toronto Epidemiology program expectations. These were evaluated by U of T and approved by Dr. Demers and Dr. Kramer.
- Student practicums may be 12 or 16 weeks in length. Students may do two practicums in the same location as long as the learning objectives differ. Negotiations for summer placements begin in January. Students are provided with a list of practicum options. Students submit their resumes and are interviewed. There are mid-way and final evaluations at which point deliverables are submitted.

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- To inform policy makers, various reports have been produced to identify risk factors for cancer among Ontario workers.
- OCRC is attractive to students since funding is provided, as well the projects can be geared towards the students’ personal interests.
- Students are encouraged to present at conferences and are advised to plan their attendance well in advance due to the amount of time required to obtain approval as per CCO’s travel policy.
- Practicums included SAS workshops lead by Dr. Anne Harris, as well as talks by Dr. Demers and others on various topics such as the cancer registry, International Agency for Research on Cancer (IARC) and cancer surveillance. However, no course on cancer epidemiology was provided.
- The students benefitted from leading their own research and felt there was the right combination of flexibility, peer support, mentorship and supervision. As well, the students felt that OCRC was clear about project ownership and authorship. However, Dr. Demers and Dr. Shelley Harris are the students’ main point of contact and the students felt that they would benefit from guidance from another senior researcher since the affiliated OCRC scientists are off-site.
- One student has already been accepted into the PhD program at McGill University. Others are still determining their areas of interest and whether they would continue on in cancer epidemiology.

In its meeting with CCO Senior Representatives, the Panel asked the following questions:

- *Why is Cancer Care Ontario supportive of OCRC?*
- *After 2014, how much do you worry about the Centre’s long-term sustainability?*
- *Is there a health and safety committee? How do you monitor whether OCRC is appropriately applying CCO policies?*
- *How do you feel about OCRC’s scientific productivity?*
- *Would there be CCO salary support for another associate scientist?*
- *Do you have metrics in place to measure the effectiveness of occupational cancer prevention efforts?*

The Panel heard:

- Historically, CCO was known for its focus on cancer treatment and running provincial screening programs. The investment in prevention has been small and recognition of this gap led to prevention being included in the corporate strategy. The inclusion of chronic disease prevention under the CCO corporate strategy greatly influenced CCO’s decision to host OCRC. OCRC is included as one of the units under the CCO Prevention and Cancer Control Division.
- Prevention and Cancer Control is the second largest portfolio after Informatics and includes the following units: Screening Unit, Surveillance and Prevention Unit, Research Unit, Policy and Knowledge Translation and Exchange Unit, Aboriginal Cancer Centre and OCRC.

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- Dr. Paul Demers was the unanimous choice for OCRC Director among all stakeholders. He sits on the Program Council and this has achieved greater integration of OCRC into CCO.
- OCRC is highly productive considering there is only one full-time scientist.
- There are new prevention initiatives such as evaluation of the effectiveness of the prevention system framework, through which CCO may potentially contribute beyond their existing commitment to OCRC. The senior host representatives are optimistic about the potential for an additional associate scientist and CCO has already provided the physical space to meet future needs.
- The CCO HR director and business office provides HR support to all units including OCRC. Enforcement of policies is uniform across all units. CCO does have a health and safety committee.
- OCRC’s main weakness is that there is funding for only one full-time scientist.
- One of CCO’s current projects is to measure the effectiveness of prevention work and the development of metrics is under development as one of the deliverables.