

CAREER SCIENTIST OPEN COMPETITION GUIDELINES

PURPOSE

The overall goal of the Career Scientist program is to develop and retain health services research capacity in Ontario. The Career Scientist Awards have been instrumental in assisting new researchers to build their careers in Ontario. The Ministry of Health and Long-Term Care (MOHLTC) is committed to fostering the growth of a provincial capacity to carry out and apply health services research. By investing in health researchers in Ontario, the MOHLTC is working to ensure that the necessary human resources are present to respond to issues that are important to Ontario's health care system.

For 2008-2009, funds will be available to support outstanding candidates working at the level of an independent investigator in health services research. Health services research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviours affect access to health care, the quality and cost of health care, and, ultimately, Canadians' health and well-being.¹ The program's mandate excludes basic biomedical research, applied clinical research and epidemiological, population-based studies as defined at the end of this document.

The MOHLTC is particularly interested in research that contributes to effective knowledge transfer including networks, structures, tools and/or processes to facilitate dissemination and organizational uptake of research evidence in decision making.

Candidates are encouraged to propose programs of research that map to strategic directions outlined by the ministry and in Local Health Integration Network (LHIN) Integrated Service Plans.

In keeping with MOHLTC's shift to being a steward the province's health care system, to better meet the needs of Ontarians today and remain sustainable for generations to come, research in the following priority areas is of particular interest to the MOHLTC:

- Aging and home care;
- Diabetes and chronic disease; and
- Mental health.

Please check <http://www.health.gov.on.ca/ourplanforhealth/> for additional information regarding ministry priorities and strategic planning exercise.

GENERAL INFORMATION

The Career Scientist Program supports the training and early career development of health services researchers by providing salary support for outstanding candidates as Career Scientists.

It is important for the candidate to be aware that their university, or one of its affiliated teaching hospitals or officially associated research institutes, will play an important role throughout the life

¹ CIHR definition of Health Services Research. <<http://www.cihr-irsc.gc.ca/e/22630.html#1-A1.1>> (Last accessed December 4, 2007).

of their grant. The university, or one of its affiliated teaching hospitals or officially associated research institutes, will be designated the role of sponsor. The sponsor assumes responsibility for the accounting and payment of the award. A candidate's application will be strengthened if the sponsor commits to, and identifies, other ways in which they will facilitate the candidate's ability to meet the program's ongoing requirements and objectives.

As a component of the application, candidates will need to identify a decision-making partner from within the MOHLTC and LHINS at the application stage. The decision-maker must be at the manager level or above, and will act as a "twin"/mentor to the Career Scientist for the duration of the award. Guidelines for MOHLTC mentors are available in Enclosure C.1.

The award is for five years, and the Ministry's contribution to the career scientists' salary is \$70,000 per annum plus benefits. The Ministry's contribution will remain constant; inflationary or other increments are the responsibility of the sponsoring university. A research allowance of \$2000 is available, by separate request, for use in each year of this five year award.

ELIGIBILITY REQUIREMENTS

All applicants must:

- wish to pursue a career in health services research in Ontario;
- be able to commit a minimum of 75 per cent of his/her time to health services research activities;
- carry out his/her research either at the university, or one of its affiliated teaching hospitals or officially associated research institutes;
- identify a mentor that is an established faculty member/ scientist who can advise the Career Scientist on his/her career development²;
- establish linkages with decision-makers (Manager level) in the MOHLTC to align their research activities with priority research areas³;
- participate in knowledge transfer activities with the MOHLTC related to the progress of their research and the research of the group of which they are a part; with the research recipient participating in knowledge transfer and policy exchange activities, including a possible policy secondment, with the Ministry related to the program of research, based on mutual agreement of terms and conditions of the policy secondment between the relevant parties.
- be legally entitled to employment in Canada for the duration of the award;
- have completed a two-year post-doctoral training program or have equivalent experience ;
- and, have no more than three years of independent research experience at the time of taking up the award.

Note: The commencement of independent research experience is usually marked by the appointment to a full-time faculty position, and/or the awarding of a research grant to the candidate as a sole Principal Investigator.

Note: Since mentorship can play an important role in the success of a Career Scientist Award recipient, candidates must identify both an academic mentor and a MOHLTC/ LHIN decision-maker mentor. A senior faculty member can advise the Career Scientist on his/her career development as the academic mentor. The sponsoring university/department should assist in selecting and identifying this mentor for the candidate's application. The candidate must also

² The Sponsoring University, department, affiliated hospital or research institute should assist in selecting and identifying a mentor for the candidate's application.

³ The Research Unit may be able to help in identifying appropriate mentors.

identify a MOHLTC/ LHIN decision-making partner at the Director level or above who is prepared to “sponsor” the candidate’s application. The mentor and partner will advise the successful Career Scientist on the policy implications of his/her program of research for the life of the award.

MAINTENANCE OF ELIGIBILITY

To maintain eligibility, all Career Scientists must:

- spend at least 75 per cent of their time on health services research activities at the university, or associated hospital or institute;
- be willing to participate in a secondment to the MOHLTC in the second or third year of the award, to a cumulative 6 month period (details to be negotiated);
- maintain legal entitlement to employment in Canada;
- be named as a principal investigator, within a year of notification, an operating grant-in-aid won in a competitive, peer-reviewed extramural grants competition;
- meet targeted expectations on ministry performance measures listed below:
 - Percentage of Career Scientists who can list at least one decision maker (from health system e.g. MOHTLC, LHINs,) who have informed their research program – target 100% of Career Scientists
 - Percentage of Career Scientist’s time spent on research transfer activities with policymakers – target up to 10% of Career Scientist’s research time inclusive of Secondment
 - Research project funds obtained as Principal Investigator (PI) and co-PI
 - Academic productivity – increased number of papers presented at health services research scientific/ policy meetings, and papers published in peer-reviewed journals.
- In addition, Career Scientists must be judged to have accomplished the following:
 - Made progress in implementing his or her research plans;
 - Produced or coordinated findings from research studies which advance knowledge in the area of research;
 - Disseminated the new knowledge through appropriate knowledge dissemination practices (i.e. publications and presentations);
 - Established linkages with MOHLC decision-makers; and
 - Keep research activities aligned with MOHLTC/ LHIN objectives and research priorities.

Career Scientists who are successful in obtaining a tenure track/stream faculty appointment are eligible for continuation of this award only until regular operating funds of the university, institute or hospital, become available to support the position.

DEADLINE

The closing date for receipt of new Career Scientist applications for the 2008 Open Provincial Competition is 5:00 pm, Friday March 14, 2008.

THE APPLICATION

Ontario universities may submit applications on behalf of individuals. Applications may be submitted in either English or French.

All pages must be typewritten on A4 metric or 8.5 x 11-inch white paper with an Arial or Times New Roman font of size 12.

The application consists of the following sections:

Section A: Cover sheet

Section B: Candidate's statement

Section C: University's statement

Section D: Appendix

Section E: Letters of recommendation

The first four sections are incorporated in the interactive Career Scientist Application form. Applications which do not include the requested information will be deemed incomplete and therefore ineligible. Letters of recommendation must be submitted directly to the Research Unit.

Applications must be completed electronically, and one hard copy with original signatures must be mailed to Research Unit, 1075 Bay Street, Suite 300, Toronto ON M5S 2X4.

Section A: COVER SHEET

The form should be filled out completely. The mailed application must have original signatures on the cover sheet. Sufficient time should be allowed for processing within the university, or one of its affiliated teaching hospitals or officially associated research institutes to obtain the appropriate authorization in advance of the application's deadline.

Section B: CANDIDATE'S STATEMENT

This section should be completed by the individual candidate (maximum 10 single-spaced pages).

- A description of current status detailing research, teaching (including graduate student supervision), and service activities, indicating time spent and level of involvement;
- A description of the current research proposal, or proposals for which the candidate has received (or applied for) grants as a principal investigator, or proposed research the candidate will undertake as part of their program of research during the first year of the award. The proposed five-year plans for the proposed program of research should be in sufficient details for the quality of the program to be evaluated. The proposed program of research should identify a sequence of projects over the five years and/ or projects, run in parallel, that compliment each other.
- Proposed collaborative research with other health disciplines must include details about the specific contribution the candidate will make to the team effort.
- Identify any MOHLTC data access required for their research program and provide a brief description of the data requirements at the time of submitting the application.
- A description of plans to establish linkages with decision-makers in addition to the decision-maker mentor and participate in knowledge transfer as described under ELIGIBILITY CRITERIA; and
- A short "Plain Language Statement" of less than 100 words which is easily understood by the lay reader (if technical terms and names are unavoidable, please define them as they first appear), and describes the candidate's program of research, namely, its focus, planned

approach and impacts, or benefits for the health system.

The candidate's curriculum vitae of no more than 6 pages should be attached to this form. The curriculum vitae is to be current and give details of employment, education, training, appointments, research experience, awards and grants received, and a list of publications and presentations.

Section C: UNIVERSITY'S STATEMENT

This section is to be completed, and an original signed by the chair/ director/ head of the sponsoring program/ department within the university, or one of its affiliated teaching hospitals or officially associated research institutes. This letter must be mailed to the Research Unit. It is to include an evaluation of the candidate, rationale for nominating, and description of the support that will be provided by the university, or one of its affiliated teaching hospitals or officially associated research institutes to the candidate.

- describe candidate's past performance and future potential;
- explain why the department/program, and university, or one of its affiliated teaching hospitals or officially associated research institutes, is recommending the individual candidate in relation to current and future research plans and priorities;
- detail the potential research environment for the candidate, including a description of the department/program, current faculty and health research resources and facilities; and
- identify a mentor, that is the faculty member/ scientist who can advise the Career Scientist on his/her career development.

The below noted component is not a requirement on the part of the sponsoring University, but if covered in the application it will strengthen the candidate's application.

- describe the ways in which the department/program and university, or one of its affiliated teaching hospitals or officially associated research institutes will assist the candidate in meeting the ongoing eligibility requirements of the Career Scientist Award program.

In addition, if the applicant does not hold an academic appointment, the sponsoring university should provide, at the time of application, a written statement of commitment of its intention with respect to a faculty tenure stream and/ or equivalent long term (permanent) contract in a university, or one of its affiliated teaching hospitals or officially associated research institutes beyond the five years of the Career Scientist award.

Section D: APPENDIX

A maximum total of 15 pages of appendices of other relevant material or documentation, which would support the candidate's application, may be appended. Attachments exceeding the stated limit will not be reviewed.

Section E: LETTERS OF RECOMMENDATION

All candidates are to arrange to have two letters of recommendation from supervisors or associates familiar with the candidate's work submitted directly to the Research Unit, one of these letters should come from an expert outside of the sponsoring organization. If more than two letters are received for an application, only the first two received will be forwarded to the panel for review.

In addition, a letter of recommendation is required from one decision-maker mentor at the Director level or above within the MOHLTC.

REVIEW CRITERIA AND PROCESS

Individual applications undergo an extensive review process.

The steps in the review process:

1. appraisal of applications by external reviewers;
2. review by an academic provincial review panel; and
3. relevance review by decision-makers, including MOHLTC and LHIN staff.

Applications are sent for confidential written evaluation to external experts who are knowledgeable in the applicant's field of research interest. To facilitate this, applicants may submit, in a covering letter with their application, the names of up to four knowledgeable individuals, who do not have a conflict of interest with the candidate, who may be invited to submit evaluations.

The academic review criteria will include:

- individual's academic and research background, including qualifications and previous performance;
- research environment where the applicant proposes to work;
- quality of proposed program of research;
- career potential of the applicant; and
- relevance of the research program to the MOHLTC's priorities.

The relevance review criteria will include:

- how closely does the proposed area of research match health system strategy priorities over the long term?
- What proportion of Ontarians will benefit from the findings of this research?
- How will this proposed area of research contribute to better health outcomes?
- Is this area of research already adequately supported within Ontario?

Copies of written evaluations are available to applicants at the end of the competition when the results are announced. The review panels' discussions are not recorded in these reports.

An interview or site visit may be requested at any stage of the review process

RESUBMISSIONS

Candidates who were not successful in previous competitions are encouraged to submit a new application, as long as eligibility requirements are met. This application will be considered as a **new application**, not a resubmission.

APPROVAL

Final approval for funding is given by the Minister of Health and Long-Term Care based upon review panel ratings and the availability of fiscal resources for the Program.

The MOHLTC's decision is final. There is no guarantee that the MOHLTC will fund any awards following a competition.

FUNDING

Following approval, a formal letter is sent to the investigator, with a copy to the designated official of the sponsoring university, or one of its affiliated teaching hospitals or officially associated research institutes. The sponsor assumes responsibility for the accounting and payment of the award.

The notification provides detailed terms and conditions for the award, which must be agreed to by the Career Scientist and the sponsor.

The MOHLTC reserves the right to terminate a grant without cause at any time by providing written notice of the termination.

During the award period, monthly payments will be transferred electronically to a prearranged account at the sponsoring agency.

AMENDMENTS

During the tenure of the award, the MOHLTC should be consulted about any substantial modifications to the candidate's program; e.g., time commitment to research, teaching and service; change in mentor or department; parental leave or any other leave.

REPORTING AND EVALUATION

PROGRESS REPORTS

Annual progress reports are required following completion of each award year on June 30. These reports are to be submitted by the university, or one of its affiliated teaching hospitals or officially associated research institutes, by August 31, and should contain a full description, for the year, of the Career Scientist's research, teaching and service activities. In addition, the academic mentor must provide comments on the Career Scientist's career development in the annual progress report. Career Scientists must also obtain comments from their decision-maker mentor partner on the Career Scientist's progress in knowledge transfer and exchange. Individualized forms for each Career Scientist to complete are normally sent to the sponsoring university, or one of its affiliated teaching hospitals or officially associated research institutes, in May. Please note that the candidate's up-to-date curriculum vitae (maximum six pages) is to be attached.

Progress reports are reviewed by academic and relevance review panels.

GUIDELINES FOR REVIEW OF PROGRESS REPORTS

For the information of applicants, the following questions are provided as guidelines to reviewers.

- Does the candidate hold an appropriate extramural research grant?
- Is he/she spending 75% of his/her time on relevant research?
- Has the candidate made progress in implementing his/her research plans?
- If the original research directions have been revised, are the departures justified?
- Is the candidate's research program still aligned with health system priorities?

- Has the candidate produced findings from the research studies, which advance knowledge in this area?
- Do the candidate's research findings have relevance to health system decision-making?
- Has he/she disseminated the new knowledge through appropriate publications and presentations?
- Has he/she established additional linkages with decision-makers in the Ministry of Health and Long-term Care, Local Health Integration Networks and other health system managers?
- Has he/she participated in knowledge transfer activities with the Ministry of Health and Long-term Care related to his/her research and the research of the group of which he/she is a part? This may include participation in a Secondment/Exchange.
- Is he/she contributing to the department's/ research unit's research through collaboration and consultation?
- Has the candidate undertaken suitable teaching and service activities consistent with his/her research career development?
- Overall Assessment of Progress ("unsatisfactory" "satisfactory - no concerns" "satisfactory - concerns" "outstanding").

FINAL REPORT

A final report is to be submitted within 90 days after completion of the award. The report summarizes accomplishments during the tenure of the award and provides a detailed description of career plans.

PUBLICATIONS

The researchers and the sponsor is required to notify the Ministry of the anticipated date of publication of any research material produced at least 30 days before such material is published, and shall provide an electronic copy of this material to the Ministry along with the notice. The Ministry shall respect the sensitivity of Materials scheduled for peer-review publication except in circumstances where release of the materials is in the public interest as the Ministry, in its sole discretion, determines.

RELEASE OF INFORMATION

It is a condition of MOHLTC funding that researchers consent to the ministry's and to each and every LHIN's use and release of information about them and their research for government purposes and for any object set out in Section 5 of the *Local Health System Integration Act, 2006* (S.O. 2006, C. 4) respectively, and without cost.

DEFINITIONS

Health research covers a wide spectrum of activities. It is important for applicants to this competition to be aware of the following definitions of the various types of health research.

1. Health services research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviours affect access to health care, the quality and cost of health care, and, ultimately, Canadians' health and well-being.
2. Basic biomedical research – explores the fundamental biological processes underlying

health and disease, and increases understanding of the cause and cure of illness.

3. Applied clinical research – builds on basic, biomedical findings to develop new technologies for prevention, diagnosis, treatment and rehabilitation.
4. Epidemiological, population-based research - provides information on the current status and trends in the health and health care needs of the general, or target populations.

Enclosure C.1

Guidelines for Decision-maker Mentors Career Scientist Program

Background:

Academics and policymakers come from different perspectives to the challenges facing the health care system. Researchers tend to have several years to shape their research questions and to fully understand accumulated knowledge on a particular aspect of a subject. They have a depth of knowledge in a clearly defined field.

Often policymakers need to address issues on a much larger scale, and in a much shorter time frame. We must also consider political factors in the options we present for decision-making. However, increasingly, scientific evidence is required as a basis to defend our recommendations.

There is great potential for us to understand each other's contexts better through mentoring partnerships.

Eligibility as a Decision-maker mentor:

- Director level or above in MOHLTC. In time, LHINs and other decision-makers may also be included.
- Firm grasp of the high level policy issues facing a particular program area eg. performance measurement, emergency management, provider services.
- Established relationships with all the community and association stakeholders for the program.
- A desire for evidence-based decision making in the stewardship of Ontario's health care system.

Responsibilities of Decision-maker Mentor

- Write a letter of recommendation for the Career Scientist at the application stage outlining:
 - how the candidate's intended research program will contribute to evidence-based decision making in your program
 - Activities for consideration during the award term
 - An estimate of the scope of impact on the health care system of this program of research
 - What proportion of Ontarians may benefit from the results of this research once it is implemented
 - Your plans to work with the Career Scientist over the course of the award to engage in shaping their research program
 - Other relationships you can foster between the Career Scientist and potential users of their research in the broader health care system.
 - Commitment to participate in standing relevance review board for new Career Scientists applications as applicable
- Commitment to regular quarterly contact with the Candidate through the duration of the Career Scientist award. The intention is for the relationship to last through the decision-maker and scientist's careers.
- Annual mentor update reports for the Career Scientist's annual progress review.

Note: Being a decision-maker mentor does not require that the Director/ manager will host the Career Scientist on secondment if another more appropriate placement is found.

Evaluation

- Performance measurement on Mentoring responsibilities over the 5 year duration of the award may be included in performance development plans

Secondment “host” eligibility:

All the qualifications of a decision-maker mentor and availability of an appropriate opportunity:

- A program relevant to the Career Scientist’s research should be undertaking a policy review or new initiative leading to a decision-document for Minister, Policy Committee, Cabinet or Treasury Broad approval. The initiative can be at any stage in the approval process.

Secondment “host” responsibilities

- Inviting Career Scientist on exchange to participate in existing meetings with stakeholders such as associations, and thereby giving them new perspectives (e.g. from the field) on issues currently facing the sector.
- Ensure that the researcher becomes embedded in the program area’s work in an integrated way, in order to maximize the Ministry contacts they can cultivate in the 6 month exchange period.
- Weekly regular one on ones with their Career Scientist researcher during the six month Secondment/Exchange specifically focused on shaping the direction of their research. The six months may not be consecutive, depending on individual arrangements for each secondment.