Ontario Molecular Pathology Research Network (OMPRN) – Cancer Pathology Translational Research Grants

Request for Applications

<table>
<thead>
<tr>
<th>Application due date</th>
<th>October 20, 2017</th>
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<tbody>
<tr>
<td>Announcement of decision</td>
<td>July 31, 2017</td>
</tr>
<tr>
<td>CPTRG Stream 1</td>
<td>1 year project, $35,000</td>
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<tr>
<td>CPTRG Stream 2</td>
<td>2 year project, $160,000</td>
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Background
The Ontario Institute for Cancer Research (OICR) is a collaborative centre of excellence in cancer research that aims to move Ontario to the forefront of discovery and innovation so that the people of Ontario and the economy benefit from promising research results and breakthroughs. OICR’s mission is to partner with the Ontario oncology community to accelerate the development and implementation of clinically important knowledge, products, services and policies to improve cancer prevention, detection, diagnosis and treatment and enable patients in Ontario and worldwide to live longer and better lives.

OICR’s [Strategic Plan 2016-2021](link to PDF) prioritized the establishment of the **Ontario Molecular Pathology Research Network (OMPRN)**, a Collaborative Research Network focused on enhancing molecular pathology research capacity across the province by:

1. Fostering collaboration and cooperation between Ontario academic pathologists;
2. Increasing the participation of pathologists in high-quality translational cancer research; and
3. Providing opportunities for residents, fellows and early career pathologists to obtain training and mentorship in cancer research.

OMPRN’s vision is to create a province-wide network of pathologists collaborating to carry out high-quality cancer research with a clear potential for clinical utility. The OMPRN Steering Committee has developed objectives under the three broad themes of (i) Awareness & Outreach, (ii) Education, and (iii) Pathology-led Research. The Cancer Pathology Translational Research Grant (CPTRG) Streams address the latter objective by supporting projects in which the primary drivers are pathologists and the primary focus is on pathology cancer research.

Cancer Pathology Translational Research Grants will build the capacity of Ontario pathologists to undertake transdisciplinary research projects that advance the field of cancer diagnostic, prognostic or predictive testing and provide learning opportunities for pathology residents or early-career pathologists.

Two grant funding streams are available to support projects that promote research excellence and transdisciplinary collaboration, and encourage membership in a pathology research community:
Stream | Description | Amount | Duration
--- | --- | --- | ---
CPTRG Stream 1 | Supports small, one-year, collaborative research projects that bring together a pathologist Principal Investigator (PI) with a trans-disciplinary Co-Investigator and a pathology trainee. | $35,000 | 1 year (ending March 31, 2019)
CPTRG Stream 2 | Supports a smaller number of more ambitious, two-year research projects led by an early-career pathologist PI with a transdisciplinary Co-Investigator. | $160,000 ($80,000 per year) | 2 years (ending March 31, 2020)

The Ontario Molecular Pathology Research Network intends to issue yearly Request for Applications to solicit research proposals from the Ontario cancer research community.

**Objective of the 2017 Request for Applications**
To solicit grant applications for Round 2 of CPRTGs (Streams 1 and 2), which will begin funding in March 2018.

**Project Scope**
Projects must be likely to advance the field of cancer diagnostic, prognostic or predictive testing. Collaborations between Ontario institutions, including the trans-institutional use of core resources, are encouraged, as is leveraging of existing collaborative clinical trials networks. It is expected that most proposals will make use of primary human cancer samples.

Examples of the types of projects OMPRN seeks to fund include:

- Novel approaches to making definitive pathological cancer diagnoses under challenging circumstances such as small tissue samples or difficult-to-recognize cancer types;
- Incorporation of molecular data in the pathological classification of tumours;
- Identification or validation of prognostic or predictive cancer biomarkers, including in the context of drug discovery or clinical trials.

**Eligibility**
With a view to involving as many researchers as possible in the Network, OMPRN will limit the involvement of investigators in more than one CPTRG-funded project as follows:

- Investigators may submit no more than one grant application per competition as either a Principal Investigator or Trainee (please see definitions below).
- Investigators may submit their single application as Principal Investigator or Trainee to either Stream 1 or Stream 2.
- Investigators may not submit similar proposals to BOTH Stream 1 and Stream 2.
- Principal Investigators who received a Stream 2 CPTRG for an application submitted in October of 2016 may not apply in either Stream 1 or Stream 2 in 2017.

OMPRN will not review applications that breach these restrictions.
Stream 1

<table>
<thead>
<tr>
<th>Funding period</th>
<th>1 year (ending March 31, 2019)</th>
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<tbody>
<tr>
<td>Total funds available</td>
<td>$280,000</td>
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<tr>
<td>Maximum amount per grant</td>
<td>$35,000</td>
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Applicants for Stream 1 grants must be part of a multidisciplinary team consisting of:

1. **Principal Investigator (PI):** a practicing, Ontario-based pathologist with an academic faculty appointment. For the purpose of this competition, a pathologist is defined as: EITHER a MD with certification from the Royal College of Physicians and Surgeons of Canada (RCPSC), or an equivalent governing body in another jurisdiction, in Anatomical Pathology, General Pathology, Hematopathology or Neuropathology with hospital responsibilities OR an MD or PhD clinical laboratory scientist with Canadian College of Medical Geneticists (CCMG) fellowship or equivalent with hospital responsibilities.

2. **Co-Investigator:** an Ontario-based MD or PhD who crosses a substantial transdisciplinary boundary relative to the PI. Examples include oncologists or other clinical investigators, bioinformatics experts and basic scientists. Teams consisting of a practicing MD pathologist with hospital responsibilities and a clinical laboratory scientist with CCMG fellowship or equivalent with hospital responsibilities will be acceptable.

3. **Trainee:** a pathology resident with an MD degree enrolled in an Ontario-based residency-training program or an Ontario-based CCMG trainee. Postgraduate pathology trainees who have completed or are eligible to undertake the RCPSC certification examinations but who have not yet assumed a faculty or staff position will be eligible to occupy the role of trainee for up to 24 months after completion of their PGY5 year. Faculty members cannot be considered trainees.

Alternatively, the mentorship requirement will be considered addressed and the requirement to include a Trainee, as defined above, waived, if the named PI is a junior faculty member within seven years of his/her first academic appointment and the Co-Investigator is a Senior Investigator. Under these circumstances, a letter from the Senior Investigator acknowledging his/her mentorship role and describing how this will be fulfilled is required.

**Note:** At least one member of the applicant team must be RCPSC-certified MD pathologist or MD pathology resident.
Stream 2

<table>
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<th>Funding period</th>
<th>2 years (ending March 31, 2020)</th>
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<tr>
<td>Total funds available</td>
<td>$320,000</td>
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<tr>
<td>Maximum amount per grant</td>
<td>$160,000 ($80,000 per year)</td>
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Applicants for Stream 2 grants must be part of a multidisciplinary team consisting of:

1. **Principal Investigator (PI):** a practicing Ontario-based early-career pathologist within seven years of his/her first academic faculty or staff appointment, defined as: EITHER a MD with certification from the Royal College of Physicians and Surgeons of Canada (RCPSC), or an equivalent governing body in another jurisdiction, in Anatomical Pathology, General Pathology, Hematopathology or Neuropathology with hospital responsibilities OR an MD or PhD clinical laboratory scientist with CCMG fellowship or equivalent with hospital responsibilities.

2. **Co-Investigator:** an Ontario-based MD or PhD who crosses a substantial trans-disciplinary boundary relative to the PI. Examples include oncologists or other clinical investigators, bioinformatics experts and basic scientists. Teams consisting of a practicing MD pathologist with hospital responsibilities and a clinical laboratory scientist with CCMG fellowship or equivalent with hospital responsibilities will be acceptable.

**Evaluation Criteria for Stream 1 and 2**

1. **Relevance:** Potential to contribute tangibly to the field of pathological tumour diagnosis, pathological classification, or prognostic/predictive testing.

2. **Research Excellence:** Scientific merit and originality of the proposed approach.

3. **Impact:** Potential for clinical utility with respect to the diagnosis, prevention, or treatment of cancer.

4. **Collaboration:** Potential to result in substantive interdisciplinary collaboration between Ontario cancer researchers.

5. **Capability of the Team:** Applicants demonstrate the requisite scientific and/or clinical expertise and capacity to carry out the proposed research.

6. **Feasibility:** Availability of institutional resources for the project, including facilities and sufficient time to carry out the research.

7. **Mentorship:** Proposal contains clearly defined learning/mentorship objectives relating to pathology cancer research and a substantive, active role for the pathology trainee or early career investigator in completing the project.

**Review process**

Applicants are invited to submit a grant application along with any supporting documents and CVs for each team member by **October 20, 2017**. Applicants to Stream 1 must submit...
the S1 Form provided; applicants to Stream 2 must submit the S2 Form provided. Application Form Guidelines can be found in Appendix I below.

Complete application forms should be submitted via email with supporting documents (see checklist) to Elliann.Fairbairn@oicr.on.ca:

Applications will be reviewed, scored and ranked by independent reviewers according to the criteria defined above. Final funding decisions will be approved by the OMPRN Steering Committee.

**Use of Funds**
Budget guidelines and allowable costs can be found in Appendix II.

**Contracting and Agreements**
OICR will enter into funding agreements with the Lead Institutions of successful applicants. The Lead Institution is the institution of the PI. Lead Institutions will be responsible for the flow of funds to partner institutions for work done in relation to CPTRG projects.

**Reporting Requirements**
Successful applicants will be required to provide an annual scientific progress report and a final report at the completion of the grant (Stream 1 grantees will only need to submit a final report). Detailed reporting requirements will be sent to successful applicants.

Trainees MUST present their work at the OMPRN annual “Pathology Matters” meeting and attend quarterly “Pathology Club” meetings. Travel costs will be covered by OMPRN and should not be included in the application budget. All grantees will be encouraged to present at other academic meetings.

**Communication Requirements**
Grantees will be required to acknowledge OICR in all scientific publications or presentations by setting out in any communications materials or publications referencing the research the following statement: **“This study was conducted with the support of the Ontario Institute for Cancer Research through funding provided by the Government of Ontario.”** Grantees must also agree to provide the OMPRN Leader with at least 30 days’ notice of any planned communication. As a publicly funded organization, OICR has a fundamental interest in ensuring the findings resulting from the research it funds are available to the widest possible audience, and at the earliest possible opportunity. Therefore, grantees are also required to deposit all final peer-reviewed full-text manuscripts in the OICR Institutional Repository (OICR-IR) at the time their publication is accepted. This publication can be freely accessible through the publisher’s website or through the OICR-IR. All publications must be freely accessible within six months of publication.
Application checklist

☐ Application form (S1 for Stream 1/S2 for Stream 2)
☐ Budget spreadsheet
☐ Deliverables and milestones spreadsheet
☐ Applicant CVs
☐ Preliminary data and/or figures (optional; single additional page only)
☐ Letter from Senior Investigator (for Stream 1 where PI is an early-career faculty member)
☐ Letter from trainee’s Program Director specifying time allotment for research (for Stream 1)

Contact Information
For questions on the funding guidelines, eligibility and how to apply please contact:

Elliann Fairbairn, Project Manager, Ontario Molecular Pathology Research Network/ Ontario Institute of Cancer Research
Email: Elliann.Fairbairn@oicr.on.ca
Phone: 647 260-7988
A list of Frequently Asked Questions will be posted on the OMPRN website: ontariomolecularpathology.ca/cancer-pathology-translational-research-grants-cptrg
Appendix I: Application Form Guidelines

II. Applicant information
Please attach a short CV for the PI, one Co-Investigator and one Trainee with your application. At a minimum, CVs should include a history of training and academic credentials, employment history, research funding and publications for the past five years. Funding information should include: i) source of funding; ii) funding period (month and year); iii) total dollar amount of funding; and, iv) for current funding, the degree of overlap with the proposed project.

Stream 1 (S1 form) only: For trainees where the named PI is a junior faculty member within seven years of his/her first academic appointment and the co-applicant is a Senior Investigator, include a letter from the Senior Investigator acknowledging his/her role as a mentor and explaining how the mentorship requirement will be addressed. This requirement is revisited in Section V below.

III. Transdisciplinary nature of collaboration
Explain the relationship between the PI and Co-Investigator and why this should be considered transdisciplinary in the context of the proposed work. In what respect are their contributions complementary?

IV. Scientific Abstract
Provide a scientific abstract in the space allotted. This should include key background information and summarize the project’s aims, methods and anticipated impact.

V. Lay Summary
Explain the goals and anticipated clinical impacts of the project in terms that are understandable to a lay audience.

VI. Project description
For re-submissions of applications that were declined funding last year, a response to the reviewers’ comments may be provided.

Preliminary data and/or figures may be included in a single additional page as an attachment; additional supplementary material will not be considered.
VII. Learning/mentorship objectives
The project should allocate a significant portion of work to the trainee or early-career PI and the work, by its nature, should entail substantive intellectual engagement.

For Stream 1 applications that include a trainee, a letter from the trainee’s Program Director must be appended specifying the amount of time that the trainee will be allotted to carry out this research project.

For projects involving a trainee, describe the learning/mentorship objectives for the trainee and how this project will meet those objectives. Describe the specific steps that will be taken to provide mentorship to the trainee. Explain how sufficient time will be available to the trainee to complete the project.

For Stream 1 applications in which the PI is an early-career faculty member (i.e., the application is from two people rather than three) a letter should be appended from the Co-Investigator attesting to this person’s relative seniority and explaining how the mentorship requirement will be addressed. For example, regular meetings attended by both applicants to review progress could be proposed.

VIII. Research Environment
Please include information about the institutional resources, time and research environment available to conduct this project and why this will be conducive to completing the project successfully.

IX. Institutional Sign-off
To be completed by the Vice-Principal of Research or Signing Authority of the Principal Investigator’s host institution.
Appendix II: Budget and Milestones and Deliverables Guidelines

Budget
This section provides guidance for completing the budget excel spreadsheet as part of the CPTGR application for Stream 1 or 2.

Allowable costs
This section outlines the various cost categories that are allowed for inclusion in the CPTGR Stream 1 or 2 budgets. All amounts are in Canadian dollars, unless otherwise stated.

Table 1 Allowable costs and costs eligible for overhead

<table>
<thead>
<tr>
<th>Project costs</th>
<th>Administrative costs</th>
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<tbody>
<tr>
<td>Salaries and benefits*</td>
<td>Dissemination of research results</td>
</tr>
<tr>
<td>Laboratory consumables**</td>
<td>Travel costs</td>
</tr>
<tr>
<td>External research services</td>
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</tbody>
</table>

* Overhead eligible
** Internal charge-back amounts for laboratory services (within an institution) are overhead ineligible

Project costs
1. **Salaries and benefits**: Allowable costs include salaries and benefits for:
   - Specialists such as statisticians or informaticians (where applicable and if they are employees of the Lead Institution i.e., the institution of the PI) or a Partner Institution (the institution where the Co-Investigator is based);
   - Research associates, technicians, post-doctoral fellows, and other highly qualified personnel working directly on the research project.

   **Salaries and benefits for the applicants are not allowable costs.**
   
   Provision of salary increases should reflect applicable institutional guidelines. *Salaries and benefits are eligible for overhead.*

2. **Laboratory consumables**: Costs for laboratory consumables directly related to the research project are allowable. *Laboratory consumables are eligible for overhead.*

   This category must be used for costs related to internal charge-back laboratory services within an institution (where applicable). *Internal charge-back amounts are not eligible for overhead.*

3. **External research services**: This cost category covers costs related to research services provided by external research groups/institutions other than the Lead or Partner Institution, OICR Technology Programs (if applicable) or OICR-funded companies. The external group must issue an itemized purchase order/invoice that includes the full cost of the services rendered (e.g., labour, consumables, sample handling, etc.). The services must be free from any intellectual property (IP) restrictions or restrictions on use of the data. *External research services are not eligible for overhead.*

Administrative costs
1. **Dissemination of research results**: Include costs associated with the dissemination of research results and/or specific, well-justified knowledge translation strategies including publication costs directly related to the project, up to a maximum of $4,000 per year. *Dissemination of research results costs are not eligible for overhead.*

2. **Travel costs**: Include travel costs (up to a maximum of five per cent of the total project budget before overhead) for applicants. All travel must be undertaken in accordance with the Lead or Partner Institution’s travel policies. *Travel costs are not eligible for overhead.*

   Note that travel costs are capped, as described above, and that unused allocations from other cost categories cannot be used for travel costs.

**Overhead costs**

A maximum rate of 30 per cent overhead will be applied to eligible costs and will be approved as part of the budget approval process. Overhead costs will be provided by OICR on top of the proposed application budget.

At the time of yearly financial reporting, reported overhead will be based on actual expenditure and not budgeted amounts. Any resulting difference between the budgeted and actual amounts will require adjustments in consultation with the affected institution.

**Non-Allowable costs**

This section outlines the various cost categories that are NOT allowable for inclusion in the project budget. These include:

- Salaries and benefits of named applicants;
- Purchase of equipment/infrastructure/software; and
- Funding for any project where there is significant scientific overlap (e.g., the research objective and design are identical or very closely related) with a project currently funded through other sources.

**Budget Monitoring**

PIs are expected to:

- Monitor allocation of the project budget closely and regularly, and take corrective action whenever necessary;
- Provide annual financial reports to OICR;
- Seek approval for any deviations from proposed project activities or budget that are greater than 10 per cent of the total budget; and
- Submit yearly reconciliation of payments to acknowledge funds received.

Please note: OICR does not have the ability to allow carryover of funds into the subsequent fiscal year therefore all unspent funds at the end of a fiscal year (i.e., by March 31) must be returned to OICR.

**Funding from tobacco industry**

OICR will not fund individuals who receive support/funding from the tobacco industry. The Project PIs/Co-PIs/trainee/early career investigators are responsible for ensuring compliance with this requirement.

**Deliverables and Milestones**
This section provides guidance for complete the Milestones and Deliverables excel spreadsheet as part of the CPTRG application for Stream 1 or 2.

**Deliverables**
A deliverable is a measurable and tangible outcome of the project. These should be developed in alignment with the scientific goals of the project.

**Milestones**
Milestones are checkpoints throughout the life of the project. They identify when one or multiple groups of activities have been completed thus implying that a notable point has been reached in the project.