

## Centre for Catalysis Research Innovation (CCRI) Collaborative Research Award for Medicinal Chemistry: “PDF for Hire”

### Deadline

Applicants are invited to submit a proposal at any time to Dr. Michael Organ, Director CCRI ([organ@uottawa.ca](mailto:organ@uottawa.ca)) and/or Dr Steffany Bennett, Associate Director CCRI ([sbennet@uottawa.ca](mailto:sbennet@uottawa.ca)).

### Award Description

The **CCRI Collaborative Research Award for Medicinal Chemistry: “PDF for Hire”** is intended to promote collaborative research between members of the CCRI, Faculty of Science (FoS) Department of Chemistry, University of Ottawa and researchers in the Faculty of Medicine (FoM), University of Ottawa (Department of Biochemistry, Microbiology, Immunology, Department of Cell and Molecular Medicine, OHRI, UOHI, and CHEO Research Institute).

Applicants with the need for skilled a synthetic chemist to deconvolve initial ‘hit’ compounds into bona fide ‘leads’ can apply to host a designated CCRI post-doctoral fellow (PDF) trained in medicinal chemistry for up to six months (full stipend of PDF is part of the award) and can apply for up to \$7,500 in associated consumables.

The award covers the full salary of the PDF and can cover consumables (up to \$7,500 per project). It is expected that one PDF, guided by faculty members from the Department of Chemistry, should be able to balance two projects from two different PIs in Medicine. Once the projects have reached the 6-month point, the PDF would then be paired with two new PIs from Medicine and their partners in Chemistry to start two new medicinal chemistry projects.

Eligible consumables are only those reagents/disposables required to synthesize the necessary compounds to advance the hit. The compound development must use a method or methods identified by the FoS Chemistry PI partner; the compound(s) must be tested using a bioassay validated and currently in use by the FoM Biomedical PI partner. The PDF will be responsible for the chemical synthesis (hosted by the FoS Chemistry applicant) and must be involved in subsequent compound testing (hosted by the FoM Biomedical applicant).

This award is made possible by support from the CCRI, the Ottawa Heart Research Institute, and the Office of the Vice President Research.

### Eligibility

Applications are invited from a partnership of two PIs, one from the Faculty of Science and member of the CCRI (FoS), Department of Chemistry and Chemical Biology and one affiliated with the Faculty of Medicine (FoM).

### Application

- A one page proposal summary outlining:
  - a) **Rationale:** the nature of the biomedical problem to be addressed and the initial hit compound
  - b) **Approach:** the nature of the target compounds required to address the biomedical problem
  - c) **Feasibility:** the synthetic solution to be employed to generate these compounds and evaluation/assay plan
  - d) **Timeline:** the anticipated timeline required to generate and test these compounds
  - e) **Sustainability:** an indication of which granting agencies/industrial partnerships the two PIs will pursue together using the preliminary data generated by this CCRI Collaborative Research Award: “PDF for Hire”
- An additional 1 page **Appendix** outlining the proposed synthetic route of the compounds that will be generated. Any precedents that you can provide for what is being proposed would be helpful, especially for chemistry that could be viewed as higher risks.
- A budget (max one page) outlining the necessary consumables to be purchased
- Common CVs (NSERC format) of both PIs

### Review Procedures

Applications will be reviewed by the “PDF for hire” awards committee comprising:

- a) The Director of the CCRI
- b) The Associate Director of the CCRI
- c) A member of the Department of Chemistry, Faculty of Science
- d) A member of the OHRI or CHEO Research Institute affiliated with the Faculty of Medicine
- e) A member of the UOHI affiliated with the Faculty of Medicine
- f) A core member of either the Department of Biochemistry, Microbiology, Immunology, Department of Cell and Molecular Medicine

The review of this collaborative award has three phases:

**Phase 1:** First, feasibility of the proposed chemical synthesis will be evaluated by Dr Organ and a CCRI member of the chemistry department. Here, applications whose synthesis is deemed the most feasible given ease of the synthetic route and the expertise of the medicinal/organic chemist the CCRI has hired for this hybrid position will be scored higher. The critical proposal elements for this part of the review are the **Approach, Feasibility, Timeline and Appendix One**.

**Phase 2:** The feasibility of the proposed bioassay will be assessed by Dr Bennett, a member of the Ottawa Heart Institute, a member of the OHRI or CHEO, and a member of BMI or CMM. Here, we are assessing whether the ability to screen the compounds generated is in place and can be done in the 6 month funding period. The critical proposal elements for this part of the review are the **Approach, Feasibility, and Timeline**.

**Phase 3:** Applications are given an overall score according to the capacity of the project to generate novel exciting data that will assist the applicants in applying to external funding agencies in the 6 months following the award. The critical proposal elements for this part of the review are the **Rationale and Sustainability**.

Phase 1 has begun (application deadline for this first round is Aug 31 but we are beginning the pre-review of the synthetic route.)

Applications received over the course of the year will be reviewed in August and February. Deadlines are August 15 and February 15.

Projects and funding will commence in mid Sept and mid March (2 projects per 6 month funding cycle; 4 projects per year).

It is anticipated that previous awardees will make up the peer review committee each year. Applications will be ranked and funding assigned with respect to the feasibility of the proposed chemical approach proposed by the FoS partner, clear demonstration that the proposed bioassay has been optimized and is routinely performed in the FoM partner's laboratory, and evidence that the synthesis and preliminary bioassays can be performed within the proposed timeline.

### **Final Report**

It is expected that within this 6-month time frame the partnering PIs will be able to generate sufficient preliminary results to apply for external funding. A one page final report is required at the end of the 6-month period indicating progress made as a result of the CCRI Collaborative Research Award: "PDF for Hire" and the target agency the applicants will be pursuing to advance their partnership.

### **Contact**

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