

## A. ABOUT RETHINK

Rethink is committed to developing an innovative grants program that addresses gaps in breast cancer research funding by national granting agencies and that can be responsive to new opportunities /initiatives within the research community.

Current needs include:

- i) Increasing the number of breast cancer researchers in Canada by facilitating the transition from Post-Doctoral Fellow (PDF) to an independent research scientist engaging in a sustained program of breast cancer research that is competitive for national and international grant funding.
- ii) Increasing the number of Physician Scientists engaging in breast cancer research in Canada.
- iii) Promoting translational research (directly linking results of laboratory research to the patient) in breast cancer in Canada.

The **Career Development Awards** program highlights Rethinks' innovative approaches to addressing these needs.

The innovations of this training program include:

- i) Support for a longer period of research training The program will provide support for a minimum of two years and will encourage trainees to undertake a third year and fourth year of training provided progress is adequate.
- ii) Funds for project consumables. In order foster the development of independent investigators the program will provide research trainees with money to offset the costs of reagents to a maximum of \$35,000 per year. This feature will provide excellent practical training experiences in structuring research projects, writing budget justifications and allocating project resources.
- iii) Encouragement for translational breast cancer research projects. The initial phase of the program deployment will be limited to translational breast cancer research. This research refers to the application of basic science techniques or observations to the prevention, diagnosis and treatment of breast cancer.

## B. PROGRAM GOALS AND SCOPE

The purpose of **Career Development Awards** is to encourage and provide early-stage support for training in **translational research** in **breast cancer** under the direction of an established research Supervisor. The program provides salary and reagent stipends to trainee investigators thereby allowing them to devote themselves to breast cancer research and encouraging their transition into an independent research careers. The program aims to fund research that shows promise for translating basic biomedical knowledge to the development of innovative approaches to breast cancer treatment, diagnosis or prevention and is specifically intended to support work that is clinical in orientation. Proposals should be based on molecular, cellular or

integrated systems findings and articulate a clear plan for the clinical exploitation of the proposed studies and expected results. **Career Development Awards** are intended to provide support over a three to four year period, contingent on satisfactory yearly progress reports. An important goal of the program is to permit the acquisition of sufficient data to apply to an appropriate national funding agency for sustained support.

### **C. REVIEW CRITERIA**

The Rethink Research Council will assess the applications for:

- importance and relevance of the proposed research to breast cancer
- the conceptual basis upon which the proposal rests
- soundness of the research plan
- the novelty of the concept and strategy
- appropriateness of budget
- potential for success at the national level
- probability of near-term advance in breast cancer prevention, diagnosis or treatment
- the overall plan for bringing the research findings to clinical application
- the experience, background, and qualifications of trainee and Supervisor
- the adequacy of resources and environment (e.g. facilities, space, personnel support, patient population, study material, data management, data analysis, etc)

### **D. SUPPORT**

Awards will be made for an initial two-year period; a renewal for up to an additional two years is available for projects demonstrating satisfactory progress. If for any reason the successful Trainee cannot complete the initial full two-year Award or the Supervisor cannot complete the supervision of the Award, the funding for the remainder of the Award will revert to Rethink to be dispersed by the Board of Directors in accordance with Rethink's mission and funding priorities. Successful PhD candidates will be paid at Year 0 to Year 6 rates ranging from \$38,000 to \$50,750 per annum as established by the National Cancer Institute of Canada (NCIC). Successful MD candidates will be paid at PGY1 to PGY9 rates that range from \$48,115 to \$83,093 per annum as established by the Professional Association of Interns and Residents of Ontario (PAIRO) Collective Agreement. Funds to a maximum of \$35,000 per annum will be available to offset the cost of materials, supplies and services required for the project. Budget requests must be carefully justified and commensurate with the needs of the project. No funds will be provided for personnel, equipment or travel.

### **E. ELIGIBILITY REQUIREMENTS**

The program is open to both Canadians and citizens of other countries. A candidate must hold, or be completing a PhD or an MD and be working in a Canadian non-profit organization, such as a university, college, hospital, laboratory, or an eligible agency of the Federal Government under the sponsorship of a research Supervisor. There are no restrictions on applicant age, race, gender or creed.

Applications will also be considered from junior faculty in non-permanent or transition positions (research assistant professor, lecturer etc.) to enable them to establish themselves as credible independent researchers on the path to permanent salary support. There should be a support

letter from their institution describing the support of the institution of the research activities and career development plans of such individuals. This letter should be faxed to Rethink at 416-920-5798 when the applicant faxes in the Host Institution/Rethink Agreement (See Section 7)

Applicants may only submit one application at a time. Awardees are expected to spend at least 80% of their time working on the proposed Rethink research project. An awardee may, with the approval of the Supervisor, engage in and accept remuneration from other sources provided that this does not interfere with their Rethink research project.

#### **F. REVIEW PROCEDURES**

Scientific peer review is conducted by the Rethink Research Council, in consultation with external expert reviewers as required, according to the review criteria summarized above. The Rethink Board of Directors will consider the recommendations of the Rethink Research Council and will determine the number of awards to be funded based on scientific merit and the annual budget. The initial funding period will be for 2 years. Project extensions for 1 to 2 years will be encouraged and will require the submission of a Progress Report and a Budget to be approved by the Rethink Research Council and Board of Directors.

#### **G. DEADLINES**

The **Letter of Intent (LOI)** is to be filled out on the Rethink website and must be received by midnight eastern standard time on Tuesday November 30, 2010. The Host Institution/Rethink Agreement must be filled out and faxed to 416-920-5798 by this deadline too. Signatures on the form are not required for the LOI.

Invitations for submission of a **Full Application** will be sent out by Rethink via email no later than Monday December 20, 2010. Applicants that will not be invited to submit a Full Application will also be notified at this time.

**Full Applications** must be emailed to [awards@rethinkbreastcancer.com](mailto:awards@rethinkbreastcancer.com) and received by midnight eastern standard time on Monday February 21, 2011. The signed Section 7 must also be faxed to Rethink at 416-920-5798 by this deadline.

**Award Notifications** will occur in March 2011 with funding of successful projects to be implemented by Thursday June 30, 2011.

#### **H. REQUIRED FORMAT**

The Face Pages (Sections 1-6) are to be completed on the Rethink Web Site. Sections 8-16 of the application are to be completed on additional pages created by the applicant in either Microsoft Word (.doc), Rich Text Format (.rtf) or PDF format. These additional pages must be typed in English using 1 inch margins, single-spaced text and one of the following fonts: Arial 10 pt or 12 pt, Courier 10 pt, or Times New Roman 12pt. The applicant's name should be typed in the upper right corner of each page. Page limitations must be observed for each section as described below. Figures are to be submitted in Joint Photographic Experts Group (.jpg) or PDF (.pdf) formats. The Host Institution/Rethink Agreement form (Section 7) is to be downloaded from the Rethink Breast Cancer website and filled out in either legible English printing or can be typed in English.

**I. LETTER of INTENT (LOI)**

The **LOI** consists of the following sections from the **FULL APPLICATION**:

- Face Pages (Sections 1-6)
- Host Institution/Rethink Agreement form (Section 7)\*
- Project Title and Scientific Summary (from first page of Section 11)
- Integration and Independence (Section 12)
- Importance and Relevance of the Proposed Project (Section 14)
- CVs of the trainee candidate and Supervisor (Section 16)

**\*No signatures are required on the Section 7 form for the LOI** but the names of all individuals who will be providing signatures for invited **FULL APPLICATIONS** must be entered and submitted by fax for the LOI.

**J. FULL APPLICATION**

The invited **FULL APPLICATION** consists of the Face Pages (Sections 1-6) to be completed on the Rethink website and Sections 8-16 to be completed on additional pages created by the applicant and uploaded to the Rethink website. In addition to the e-mail submission, the applicant must also fax the signed Section 7 form.

**SECTION 1. Project Information**

**SECTION 2. Applicant Information**

**SECTION 3. Research Supervisor Information**

**SECTION 4. Financial Officer Information**

**SECTION 5. Certification Requirements**

**SECTION 6. Suggested External Reviewers**

Rethink requires applicants to suggest the names of two or more peers competent to review in the field(s) of research in which they propose to work and who are not in conflict of interest, for example those who:

- have collaborated, published or been a co-applicant with the Trainee or Supervisor within the past five years
- have been a former student or supervisor of the Trainee or Supervisor within the last ten years
- are a close personal friend or relative of the Trainee or Supervisor
- are in a position to gain financially from the outcome of the application

**Rethink Breast Cancer reserves the right to make its own selection of referees to be consulted.**

**SECTION 7. Host Institution/Rethink Agreement** (1 page form)

**SECTION 8. Past Experience, Training Expectations, Goals** (maximum 2 pages)

This section is to be completed by the Trainee. Provide an overview of how your previous research training relates to the present proposal and elaborate on your career goals. Describe how the training you expect to acquire will contribute to your future research achievements and productivity and how this award will enable you to establish yourself as an independent investigator. MD candidates who intend to pursue careers as Physician Scientists should also outline how they plan to eventually combine research and clinical practice.

**SECTION 9. Additional Activities** (maximum 1 page)

This section should be completed by the Trainee in collaboration with the proposed Supervisor. Describe all activities to be undertaken by the trainee other than direct work on the proposed research project (e.g. teaching, courses, supervision, seminars, clinical activities). Indicate the percentage of time to be spent on each activity.

**SECTION 10. Lay Abstract** (maximum 1 page)

This section should be completed by the Trainee in collaboration with the proposed Supervisor. Provide, in 15 lines or less, a non-technical summary of the research project, written in language suitable for a lay audience. The summary should indicate how the research can translate basic biomedical knowledge to the development of innovative approaches to breast cancer treatment, diagnosis or prevention.

**SECTION 11. Project Description** (maximum of 7 pages)

This should be written in general scientific language and completed by the Trainee in collaboration with the proposed Supervisor. **For the Full Application, both the candidate and the proposed supervisor must sign the statement on Section 7 to confirm the accuracy of the proposed training program.** The page limits do not include references, figure legends or tables that should immediately follow the Research proposal and numbered consecutively (e.g. 9h, 9i, etc). Figures (if any) should be attached as separate files in Joint Photographic Experts Group (.jpg) or PDF (.pdf) formats.

Provide the following:

- Project title and scientific summary (maximum 1 page)
- Research proposal (maximum 6 pages)
- Include the following sections:
  - Background and significance
  - Hypothesis
  - Specific aims
  - Research plan including time line and a description of the trainees' role

**SECTION 12. Integration and Independence** (maximum of 1 page)

This section is to be completed by the Supervisor in collaboration with the Trainee. Outline how the proposed project will fit with the Supervisor's overall research program but also provide an opportunity for the Trainee to establish an independent research program in the future.

The Priority for Rethink is the development of independent scientists. It is critical to explain how the Rethink funds will develop a novel or complementary research focus that does not duplicate existing funded research activity within the supervisor's laboratory. Explain how the supervisor will assist and promote the trainees transition into a fully independent scientist.

**SECTION 13. Training Environment** (maximum of 1 page)

This section is to be completed by the Supervisor. Describe the space, facilities and personnel support available to the trainee. Explain how the trainee will be guided through the program (e.g. regular meetings, planning sessions, involvement of senior research associates, etc) and what enrichment resources will be available (lab meetings, rounds, research seminars, visiting speakers etc.).

**SECTION 14. Importance and Relevance of the Project** (maximum of 1 page)

This section should be completed by the Trainee in collaboration with the proposed Supervisor. Describe the importance and relevance of the proposed research, the probability of a near-term advance in breast cancer prevention, diagnosis or treatment and the overall plan for bringing the research findings to clinical application.

**SECTION 15. Budget**

This section should be completed by the Trainee in collaboration with the proposed Supervisor. Indicate the total amount requested from Rethink for Materials, Supplies and Services for Years 1 and 2 of the proposed project and provide a detailed justification for all expenditures.

**SECTION 16. Curriculum Vitae**

A CV is required for the candidate Trainee and the research Supervisor. Essential elements of the CV include work experience (i.e. current and previous positions, appointments and affiliations), academic training (i.e. university degrees obtained or in progress and research training, such as postdoctoral or fellowship training or in the case of trainees undergraduate and graduate research training experience), research funding over the past five years, complete references to all publications over the past five years (or any other representative publications pertinent to the application) and experience of the supervisor regarding trainees (i.e. number, date, type and current position of former trainees). A list of all Active and Pending grant applications must also be provided using the following formats:

- Title of Project
- Principal Investigator
- Co-Investigator(s)
- Source of Funding and Program
- Dates of Project

- Annual Awarded Amount
- Percentage Overlap with Rethink Application
- Brief Description of the Conceptual and the Budgetary Relationship of the Project to the Rethink Application

The CV documents must be created by the applicants according to the guidelines above.