

REQUEST FOR PROPOSALS

Grand Challenges Canada at the
McLaughlin-Rotman Centre for Global Health



Grand Challenges Canada™
Grands Défis Canada^{MC}

BOLD IDEAS FOR HUMANITY.™

Canadian Rising Stars in Global Health

September 2010

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“With funding and support, Grand Challenges Canada will enable Canadian and developing-world scientists to introduce innovation and solve persistent global health problems. Grand Challenges Canada is committed to unlocking the potential of developing-world scientists – working with their Canadian counterparts to tackle health challenges and contribute to lasting solutions.”

Background

A decade into the new millennium, Canada, a young but determined country, earned its place on the world stage. It started in the January cold of 2010 when enthusiastic Canadians ran across the country with the Olympic flag and on the way found a new pride in their country. At the Winter Olympics in Vancouver, a passionate nationalism grew with each passing day as Canadians climbed the podium for a record-setting number of gold medals by a home country. And in other sectors as well, Canadians made their leadership mark this year. Our banking system weathered the financial crisis and garnered the world's acclaim for its prudence and good management. Canada hosted the world's leaders at the G8 and G20 which underscored our new position on the global stage. So many accomplishments and so much pride in our country!

Building on our new pride, Grand Challenges Canada is inviting Canadian scientists to bring their knowledge, their inventiveness and their unparalleled energy to the issues of global health.

Massive inequalities in health exist across the globe. The urgency to address these health disparities was reflected in the eight goals for development agreed upon by UN member states in the Millennium Declaration. Four of the Millennium Development Goals (MDGs) directly apply to health: MDG 1 is to eradicate extreme poverty and hunger, MDG 4 is to reduce childhood mortality, MDG 5 is to improve maternal health, and MDG 6 is to combat HIV/AIDS, malaria, tuberculosis and other diseases.

Yet even after a decade of focus on these goals, intolerable inequities in health between high- and low-income areas in the world persist. For example, malnutrition in children is over 10 times more prevalent in developing countries than developed countries, a newborn is over 35 times more likely to die in the first month of life in the developing world than in developed countries, a woman in a low-income region is 50 times more likely to die in pregnancy and childbirth than a woman in a high-income region, and tuberculosis is still over 100 times more prevalent in sub-Saharan Africa than it is in North America.

Canada has the resources, the educated population, the creativity, and the science and business acumen to build upon its legacy of excellence in an integrated way to show bold leadership that can have a major impact on global health.

The tremendous skills, knowledge, and innovation of Canadian scientists mean we can boldly harness an opportunity to address these global health challenges. In an effort to promote the burgeoning leadership role Canada has in global health, we have developed this *“Canadian Rising Stars in Global Health”* program to support the best and brightest of our young Canadian talent who will use technical, social, and business innovation to address these most pressing global health problems.

The goal of this request for proposals is to support the development of exceptional emerging Canadian scientists in global health who have the potential to be world leaders in global health.

We seek **proposals for innovative technologies** integrated with delivery mechanisms that could be easily implemented in developing countries to improve global health. We seek **ideas that are bold and creative**, and that have the potential to make a substantial impact on a global health problem. The proposed innovations would need to:

1. Have a strong likelihood of achieving substantial and measurable health gains in an under-resourced population;
2. Maximize delivery, uptake, acceptability, sustainability, and impact by integrating scientific and technological innovation with social and / or business innovation. We call this “integrated innovation” (see Integrated Innovation white paper).

Desirable attributes include:

- Solutions appropriate for settings with limited electricity;
- Technologies that minimize maintenance and training;
- Approaches that can be used effectively to improve health in communities with no or basic health clinics;
- Adaptations of widely-used technologies (e.g., mobile phones) to meet health needs;
- Solutions that can be easily assimilated into cultural practices and existing health delivery mechanisms;
- Technologies embedded within a solid business plan to drive market penetration and uptake in poor countries;
- Technologies that can be translated quickly into approved products;
- Extreme affordability.

We will *not* consider funding for solutions that are not applicable to a low-resource developing world setting.

Funds Available

Up to \$20 million CDN is available for this program. Awards are initially valued at \$100,000 CDN for up to 18 months to demonstrate proof-of-principle of the idea. Upon successful review at 12-18 months after the initial award is granted, scale-up grants of up to \$1 million CDN for two to three years may be awarded. A minimum of 30% of the scale-up budget must be spent in the low- and middle-income country.

Assuming a sufficient number of proposals of merit, 20 awards of \$100,000 CDN will be granted in this round of funding. We intend to have two additional rounds of funding for proof-of-principle awards occurring annually. Up to 14 scale-up awards may be granted over the three rounds of competition.

Eligibility

Applicants must:

- Be no more than 10 years from having completed a PhD or a health professional degree at the time of taking up the award;
- Be affiliated with a Canadian non-profit organization, for-profit company, or other recognized institution capable of supporting the proposed activities and administering grants;
- Be willing to engage the public on their project and, more generally, on global health topics;
- Have a co-investigator in a low- or middle-income country. This is desired from the proof-of-principle stage, and will be required for the scale-up phase (see more detail below);
- Have the support of a mentor, who will provide guidance and facilitate career development.

Co-investigator requirements:

The co-investigator must also be no more than 10 years from having completed a PhD or a health professional degree at the time of taking up the award; be affiliated with an institution located in a low- or middle-income country capable of supporting the proposed research activities, and be willing to engage the public on their project and broader global health topics.

Existing and new collaborations are equally encouraged. Grand Challenges Canada will facilitate introductions with potential collaborators.

Proposal Submission

The full proposals will consist of a written proposal in addition to a 1-2 minute video explaining the target global health problem, their solution, and why it is a creative, bold, and innovative approach.

Please see www.grandchallenges.ca for application guidelines and submission instructions. Completed proposals must be submitted by 11:59pm (EST) March 7, 2011.

Selection process:

A review committee, overseen by the Canadian Institutes of Health Research (CIHR), will make a recommendation of the top 20 applications to the Grand Challenges Canada Board of Directors. The Board of Directors makes the final funding decision.

Selection criteria:

1. ***Investigator Potential*** – Does the applicant demonstrate the potential to be a world leader in global health? Scientific contributions to date, linkages with resource limited countries and evidence of excellence in scholastic activities will be used as metrics of career potential. Are the proposed activities appropriate to the training and experience level of the principal applicant (and, where applicable, collaborators)? Does the applicant have the support of a mentor who is capable of facilitating career development in global health research?

2. **Global Health Impact** – Is the proposal likely to have a significant impact on global health? Does the proposal address a concern of priority to resource-poor countries? Are the proposed activities likely to have a positive impact on the health of the proposed target population? Does the proposal clearly explain the pathway to impact, including how it will save lives or reduce disability?
3. **Integrated Innovation** – Does the proposed solution integrate social or business innovations with scientific or technical innovation? Is the approach truly novel and a departure from incremental or evolutionary improvements over current approaches?
4. **Technical Merit/Execution Plan** – Is the proposed concept and approach based on sound scientific analysis and technical rigor? Are the proposed milestones appropriate, feasible and technically sound? Does approach represent an efficient use of resources? Does the environment in which the work will be performed contribute to the probability of success? Does the approach take advantage of unique features of the scientific environments including partnerships with industry?
5. **Collaboration** – Does the proposed project include the collaboration of an investigator from a low- or middle-income country? Is the value added by the inclusion of co-investigator(s) in the project clearly justified? [A collaborator is desirable for initial (\$100,000) projects, and required for the scale-up (\$1m) projects.]
6. **Public Engagement** – Is the applicant able to present their approach to the public in an engaging manner? [This will be determined by the outcome of public online voting on applicant videos.] Does the applicant state their willingness to engage the public on global health issues and their research in an ongoing and creative manner?

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