GRAND CHALLENGES

Grand Challenges: A Family of Grant Programs
Fostering Innovation to Solve Key Global Health and Development Problems

In this newsletter:
• Grand Challenges initiatives and organizations
• Feature story: Eliminate Dengue and an interview with Dr. Luciano Moreira
• Grand Challenges partner updates
• Recent grant activity
• Current or future requests for proposals (RFPs)
• News and resources

GRAND CHALLENGES INITIATIVES AND ORGANIZATIONS

Grand Challenges programs:
• Define challenges whose solution would unleash progress in key areas
• Engage the world’s most innovative researchers
• Focus research on making an impact for those most in need
• Build collaboration among researchers and funders to accelerate impact
• Build an expanding global network of programs and partners

Grand Challenges in Global Health (Launched in 2003):
Grand Challenges in Global Health is a grant initiative that focuses on an expanding set of major global health challenges. The program aims to engage creative minds worldwide to work toward solutions that could lead to breakthrough advances for those in the developing world.

Grand Challenges Explorations (Launched in 2007):
Grand Challenges Explorations is an agile, accelerated grant initiative with a short, two-page application and no preliminary data required. Anyone with a bold idea can submit a proposal on one of several designated topics, and proposals are solicited twice a year for an expanding set of topics. Successful projects are eligible to receive a follow-on grant.

Grand Challenges Canada (Launched in 2010):
Grand Challenges Canada is dedicated to supporting bold ideas with big impact in global health. It is funded by the Government of Canada and supports innovators to develop and bring to scale ideas that integrate scientific, technical, social, and business innovation, otherwise known as Integrated Innovation. Grand Challenges Canada focuses on innovator-defined challenges through its Stars in Global Health program and through targeted challenges in Women’s and Children’s Health, and in Global Mental Health.

Grand Challenges Canada’s Stars in Global Health (Launched in 2010): Grand Challenges Canada’s Stars in Global Health supports ideas from innovators in low-and middle-income countries and Canada. Innovators must define the challenges and address them using an Integrated Innovation approach. The program consists of both proof-of-concept awards as well as transition-to-scale funding.

Grand Challenges for Development (Launched in 2011):
Under the Grand Challenges for Development initiative, USAID and other partners focus on defining problems, identifying constraints and providing evidence-based analysis for a variety of development issues. The program aims to create and support sustainable solutions.

Grand Challenges Brazil (Launched in 2012):
Grand Challenges Brazil is a partnership framework for the Ministry of Health of Brazil, its National Council on Research (CNPq) and the Bill & Melinda Gates Foundation to launch joint initiatives aimed at catalyzing innovative health research within Brazil. Additionally, Brazilian state-based research foundations (FAPs) will co-fund Grand Challenges Explorations grants. For information in Portuguese, see the Brazilian press release.

Grand Challenges India (Launched in 2013):
Grand Challenges India is a partnership framework for the Department of Biotechnology (DBT) in India, its Biotechnology Industry Research Assistance Council (BIRAC) and the Bill & Melinda Gates Foundation to launch joint initiatives aimed at catalyzing innovative health and development research within India.
THE ELIMINATE DENGUE PROGRAM

The Eliminate Dengue research program is an international collaboration led by Professor Scott O’Neill of Monash University in Melbourne, Australia. Eliminate Dengue was one of the 45 original Grand Challenges in Global Health grants. The program began as an effort to investigate whether *Wolbachia*, a naturally occurring bacterium in up to 70 per cent of all insect species—but not in dengue carrying mosquitos—could be used to disrupt dengue transmission. Today, this network has expanded beyond Australia to include five additional country programs in Brazil, China, Indonesia, Vietnam and Colombia.

If the project is successful, it will contribute to reducing the risk of dengue fever for an estimated 2.5 billion people currently living in high-incidence areas. As a result, the significance of this innovative intervention has not gone unnoticed. In September, the Australian Infectious Diseases Research Centre awarded the Eliminate Dengue team the Eureka Prize for Infectious Diseases Research for its breakthrough research in vector control, citing it as a “potential game-changer in the battle against dengue and other insect-borne diseases.”

The Eliminate Dengue program also serves as a model for conducting international collaborations and engaging with researchers at the country level. The expansion of the program into these countries—all with relatively high burdens of the disease—will test whether or not the *Wolbachia* method of control is effective in diverse geographies, and in the case of China, in a different type of mosquito as well. In each country, efforts to understand the local context have been a high priority, and the engagement of in-country researchers has been critical to the success of the program to date. More broadly, the evolution of the Eliminate Dengue program into a network of international programs highlights the trajectory of global health research and demonstrates the value in this approach.

In the subsequent interview, Dr. Luciano Moreira, the principal investigator on the Eliminate Dengue program in Brazil, shares his experience working on the project and discusses the important role the international network of Eliminate Dengue programs has played in this effort.

**Interview with Dr. Luciano Moreira, Principal Investigator of Eliminate Dengue Brazil**

*When did you first hear about the Eliminate Dengue project, and how did you get involved in this work?*

I have been involved in this project from the beginning. During my sabbatical from Fiocruz from 2008 to 2010, I had the opportunity to spend two and a half years in Professor Scott O’Neill’s lab in Australia. Initially, we were studying *Wolbachia’s* ability to reduce mosquito lifespan, but we soon discovered that certain strains of *Wolbachia* were actually able to block the dengue virus. This characteristic is the most important for disease control. When I returned to Brazil, I remained engaged in this project, and in 2011, Scott invited me to be the Principal Investigator for Eliminate Dengue Brazil to test *Wolbachia* in the Brazilian context.

*Eliminate Dengue Brazil is scheduled to enter field trials next year. What could successful field trials mean for dengue control in Brazil, and globally?*

The main goal of the field trials is to evaluate if *Wolbachia* can spread and establish itself in the mosquito population in Brazil, which has unique environmental conditions. If this is successful, we will then assess the impact of this initiative to reduce dengue transmission. Brazil has one of the highest burdens of dengue in the world and successful field trials would be a huge milestone for further development of this project and for dengue efforts worldwide. Strategies such as the ones used by the Eliminate Dengue project can bring new hope to the control of a disease endemic in Brazil and in other countries.
How has the international network of Eliminate Dengue programs impacted your work in Brazil? How much opportunity is there for collaboration across the network?

It is great to be part of the collaborative and rich environment fostered by the Eliminate Dengue network. The program currently operates in six countries — Australia, Brazil, China, Indonesia, Vietnam and, most recently, Colombia. This international network has proven to be valuable for our work in Brazil because it opens up opportunities for collaboration with colleagues from different countries and creates a platform to exchange ideas and lessons learned. We regularly send some of our researchers to Australia to learn about how the local Eliminate Dengue team carried out community engagement and other aspects of the research and to witness first-hand the release of Wolbachia mosquitoes in the field. These lessons have helped to guide our implementation efforts in Brazil and will inform the four field trials scheduled in Rio de Janeiro in 2014.

What has been the community response to the Eliminate Dengue program in Brazil thus far?

So far, the communities in the four areas where we will conduct field trials have been receptive and supportive of our work. Through frequent and transparent communication, we have worked hard to establish a strong bond with community leaders. Eight people from our community engagement team perform weekly interventions in the study areas in order to inform the public about the project’s goals and procedures and to assess the community members’ responses to and perception of the program. In general, there is a high awareness of the impact of dengue among the population, and tremendous support for new interventions. Thus, one of our main challenges is to manage expectations, and ensure that community members are aware that, although this is still a research project and not yet a control strategy, their support and participation are essential to the success of this initiative.

Do you think this type of innovative thinking about dengue could be applied to other vector-borne diseases like malaria?

That might be possible, but it is a bit more complicated because, unlike dengue, there are several vectors that can transmit malaria in different settings. As a result, we would have to transmit Wolbachia to more than one species of mosquito or apply this strategy in circumstances when one species is the main vector. However, vector control through Wolbachia could likely be used to control other diseases transmitted by Aedes aegypti, such as chikungunya fever, which has a high burden in Asia. Thus, our study does have the potential to further advance the scientific knowledge base in the field of vector control in relation to other diseases.

For more information on the Eliminate Dengue research program, please visit www.eliminatedengue.com, or watch this video in English or Portuguese.
GRAND CHALLENGES PARTNER UPDATES

A Kenyan man pumps water at his farm. USAID and SIDA launched *Securing Water for Food: A Grand Challenge for Development* during World Water Week in September.

USAID: We are Stronger by Harnessing Science, Technology and Innovation

USAID is taking a **new approach** to development based on the fundamental belief that harnessing the power of science and technology — coupled with an open approach to solving problems that engage traditional and nontraditional development communities — are the keys to addressing the world’s greatest development challenges. They believe that this approach will more quickly yield less expensive and more sustainable and efficacious solutions to key global challenges.

Over the past three years, USAID has used a unique mix of science and technology and open approaches to transform its development model. To this end, they have prioritized greater collaboration and partnership with the global science, technology, university and business communities and tapped into the “solver movement” to crowd-source, pilot and accelerate the best new solutions to global challenges. USAID has also nurtured new solutions that respond more nimbly to the rapidly transforming development landscape and fostered collaborative research programs and global coalitions. Throughout these efforts, USAID has continued to ensure that taxpayer dollars remain catalytic and stimulate external resources and capital that leverage US funds.

As of September 2013, USAID has launched five Grand Challenges to find and support solutions that save mothers’ and children’s lives in the critical 48-hour period after delivery; dramatically improve early-grade reading levels; overcome critical barriers to agricultural energy levels; help grow the global movement for open government, transparency and accountability; and, **most recently**, improve water sustainability for boosting food security. These five Grand Challenges have yielded approximately US$200 million in commitments — US$74 million from USAID and US$126 million from partners. Through the Grand Challenges for Development (GCDs) model, USAID and its partners are using their tools and networks to identify and accelerate science- and technology-focused innovators, entrepreneurs and businesses that have the potential to achieve large-scale development impact. Each GCD takes a portfolio approach, focusing not only on prototyping and validating early stage innovations, but also on commercializing and scaling of later-stage innovations.
The Search for a Tuberculosis Vaccine

Aeras, a nonprofit product development partnership seeking to develop new tuberculosis (TB) vaccines, launched the film series EXPOSED: The Race Against Tuberculosis in Spring 2013. The four-part series provides viewers with an in-depth look into current efforts to create a TB vaccine. The film is narrated through the eyes of TB survivors, physicians on the ground and some of the leading TB scientists in the world. It highlights the urgent need for innovation, strengthened political commitment, continued investment and sustained research to develop an affordable vaccine that could save more than a million lives a year.

Aeras has collaborated on a number of Grand Challenges in Global Health grants, including research to reformulate TB and diphtheria vaccines into inhalable aerosol sprays and research to identify biomarkers that could improve TB vaccines, drugs and diagnostics. Echoing one of the fundamental principles uniting programs within the Grand Challenges family, Dr. Anthony Fauci, the Director of NIAID, notes in the film: “There’s a lot of excitement about TB right now. That’s what you want to get, because when you get that excitement you get the young, bright people with ideas that you might think are crazy, but they turn out to be the best ideas. You want those people to be involved in tuberculosis research.” The film underscores that it is through this unconventional thinking that the global health field will unlock the solution to the challenge of developing a TB vaccine and ultimately change the world.

Watch the film series at www.aeras.org/exposed.

Ethical, Social and Cultural Issues in Global Health Research

In August, Dr. Jim Lavery of St. Michael’s Hospital in Canada, and 10 additional global health researchers, released a report that addresses the ethical, social and cultural (ESC) issues inherent to global health research. The report notes that in many studies involving field trials, it is common practice for investigators to gain consent from communities where the research is conducted in the late stages of the project. The authors call for a reassessment of this strategy, and recommend that researchers, funders, research institutions and managers of these global health initiatives put more emphasis on understanding the impact of their work in the early stages of the research.

Using lessons drawn from the original Grand Challenges in Global Health program launched in 2003, the study outlines a set of strategies for researchers. These include: (1) integrate ESC consultation into the full research process, from design to implementation; (2) engage and prioritize perspectives from the global South; (3) build on specific cases to identify and propose solutions that cut across a range of research endeavors; and (4) assess strategies, activities and outcomes. In sharing these lessons, the investigators hope to help ESC programs focused on global health — and other scientific endeavors — evolve, improve their practices and gain prominence, while simultaneously conducting research at the highest ethical standards possible.
GRAND CHALLENGES PARTNER UPDATES CONTINUED

Grand Challenges in India

Last year, the Department of Biotechnology (DBT) of India, its Biotechnology Industry Research Assistance Council (BIRAC) and the Bill & Melinda Gates Foundation announced a Grand Challenges India partnership to co-invest in innovative research to improve health within India and around the world. After assessing mutual priorities, the partners launched the inaugural Grand Challenges India initiative Achieving Healthy Growth through Nutrition and Agriculture in August 2013. The initiative will fund a portfolio of Indian-led pilot projects that seek to target the relationship between agriculture, nutrition and health to reduce the high incidence of low birth weight, stunting and wasting in Indian children less than two years of age and to prevent undernutrition in women of reproductive age. One-third of the world’s malnourished children are in India.

Shortly after this initiative was launched, Grand Challenges India announced a second call for proposals to “reinvent the toilet.” This initiative seeks innovative thinking around processing human waste and controlling environmental contamination more effectively. Globally, issues related to poor sanitation result in 1.5 million child deaths and are responsible for the stunting of 62 million children under five years old each year.

Media Response to the “Develop the Next Generation of Condom” Grand Challenges Explorations Topic

Grand Challenges Explorations application Round 11 opened in early March 2013 with calls for proposals on five topics. The announcement included a blog specifically promoting the topic “Develop the Next Generation of Condom,” which asks innovators to develop a new condom that “significantly preserves or enhances pleasure, in order to improve uptake and regular use.” Shortly afterward, the call for proposals began circulating widely on technology websites, and then the story of the condom topic went viral. Boosted by activity on social media sites, the number of visits to the Grand Challenges website jumped from fewer than 700 per day to more than 30,000 per day. News outlets ranging from the Washington Post and The New York Times to PC Magazine and Cosmopolitan covered the story.

The surge of interest in the condom topic demonstrates the potential that the Grand Challenges Explorations program has to capture the imagination of people around the world. The important outcome, however, is whether this publicity translates into groundbreaking advances in developing a next-generation condom. The condom topic will also be featured in Round 12, which opened in September 2013.
Rebecca Richards-Kortum and Maria Oden: 2013 Lemelson-MIT Award for Global Innovation Winners

Rebecca Richards-Kortum and Maria Oden were awarded the Lemelson-MIT Award for Global Innovation in May 2013 for their lifesaving inventions and dedication to mentorship. The US$100,000 award recognizes Dr. Richards-Kortum and Dr. Oden for their leadership at “Beyond Traditional Borders,” a program at Rice University that encourages students to solve global health challenges by designing technologies fit for low-resource settings. From this program, they have guided more than 3,000 students through the invention process, resulting in 58 health technologies that impact the lives of more than 45,000 people in 24 countries.

One of the interventions pioneered by Dr. Richards-Kortum and Dr. Oden is the infantAIR bubble Continuous Positive Airway Pressure (bCPAP) device, which received startup funding from the National Collegiate Inventors and Innovators Alliance (NCIIA) in 2010. This device is designed for babies in low-resource settings to help keep their lungs fully inflated when they have acute respiratory infections. In the summer of 2012, the CPAP device was awarded a US$2 million grant under the Saving Lives at Birth: A Grand Challenge for Development program. In January 2013, the infantAir CPAP team participated in the NCIIA’s Xcelerator Training Program, a specialized training supported by The Lemelson Foundation and USAID to help accelerate the ideas and inventions of Saving Lives at Birth grantees into sustainable solutions.

Although much of Dr. Richards-Kortum and Dr. Oden’s work at Rice University focuses on innovative products for low-resource settings, their work extends beyond technology development. The two have contributed their recent Lemelson-MIT winnings to help build a new neonatal ward at Queen Elizabeth Central Hospital in Malawi, with the intent of creating an innovation hub for affordable, high-performance technologies to improve newborn care.

Previously, Dr. Richards-Kortum has been awarded other Grand Challenges grants. In 2009, she was awarded a Grand Challenges Explorations grant to design a needle-free malaria diagnostic, for which she received Phase II funding in 2012. She also received a Grand Challenges in Global Health Point-of-Care Diagnostics grant in 2011 to create a low-cost component for point-of-care diagnostic devices.
IKP-Grand Challenges Explorations Program

In June 2011, IKP Knowledge Park in partnership with the Bill & Melinda Gates Foundation launched IKP-Grand Challenges Explorations (IKP-GCE). IKP—a premier research park in Hyderabad, India—promotes technology-based companies and nurtures an environment for innovation in the areas of life sciences, health, environment, materials and communications. The IKP-GCE program is run annually and funds three projects each year through Phase I grants of US$100,000 each to Indian investigators. In this new pilot Grand Challenges Explorations initiative, IKP runs an independent application and review process that places a strong emphasis on the mentorship of the selected grantees, providing them with access to technical consulting, networking opportunities and lab facilities. Anyone working in India is eligible to apply for these Phase I grants and can be considered for Phase II funding of up to US$1 million.

Since the launch of the partnership, IKP has received a total of 228 “out-of-the-box” ideas that have the potential to impact the health of large, underserved and poor populations. Six Indian researchers to date have received Phase I grants through the IKP process, including proposals in the areas of TB, HIV, maternal and neonatal health, and with solutions ranging from new therapies to diagnostics and health devices.

Gates Foundation/Lemelson Foundation/NCIIA Partner for Grand Challenges Explorations Grantee Development

Reaching impact at scale is in itself a grand challenge for innovative projects, as many fail to account for the complexities of implementing a new technology in the developing world. To address this gap, The Lemelson Foundation and the Bill & Melinda Gates Foundation are partnering to provide venture development support to Grand Challenges Explorations grantees. This support is meant to catalyze the creation of socially beneficial, scalable ventures as the grantees develop their innovative solutions to grand challenges in health and development. Both partners will co-invest in a Grand Challenges Explorations Xcelerator Pilot Program run by the National Collegiate Inventors and Innovators Alliance (NCIIA). From February 2014 to May 2014, NCIIA will run three workshops for up to 60 grantee-led teams, providing training and mentoring on entrepreneurship and commercialization to enhance the translation of inventive ideas to products that have impact on the lives of the poorest populations. This initiative leverages the Bill & Melinda Gates Foundation’s commitment to encourage scientists worldwide to expand the pipeline of ideas and to move forward promising candidate interventions; The Lemelson Foundation’s history of nurturing ideas into inventions with the potential to reach people who can use them the most; and the NCIIA’s substantial experience in training inventors to turn their ideas into self-sustaining enterprises.
### RECENT GRANT ACTIVITY

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<tr>
<th>PROGRAM TITLE</th>
<th>FUNDING ORGANIZATIONS</th>
<th>PROGRAM OPENED</th>
<th>FUNDING AWARDED</th>
<th>TOTAL FUNDING (APPROXIMATE)</th>
<th>NUMBER OF GRANTS</th>
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<tr>
<td>Stars in Global Health (Round 4)</td>
<td>Grand Challenges Canada</td>
<td>May 2012</td>
<td>April 2013</td>
<td>CAD$10.9 million</td>
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<td>Powering Agriculture</td>
<td>USAID; Sida; Duke Energy; USDA; OPIC; AIDB</td>
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<td>TB Vaccine Accelerator</td>
<td>Gates Foundation</td>
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<td>Global Mental Health, Seed Funding (Round 2)</td>
<td>Grand Challenges Canada</td>
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<td>Global Mental Health, Transition-to-Scale (Round 2)</td>
<td>Grand Challenges Canada</td>
<td>Nov. 2012</td>
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<td>Stars in Global Health (Round 5)</td>
<td>Grand Challenges Canada</td>
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<td>Saving Brains — Scaling Impact, Seed Funding</td>
<td>Grand Challenges Canada</td>
<td>Nov. 2012</td>
<td>May 2013</td>
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<tr>
<td>Saving Brains — Scaling Impact, Transition-to-Scale</td>
<td>Grand Challenges Canada</td>
<td>Nov. 2012</td>
<td>October 2013</td>
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#### 2013

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<th>PROGRAM TITLE</th>
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<tr>
<td>Saving Lives at Birth (Round 3)</td>
<td>Grand Challenges Canada; USAID; Gates Foundation; DFID; Norwegian Ministry of Foreign Affairs</td>
<td>Jan. 2013</td>
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<td>Grand Challenges Brazil — Reducing the Burden of Preterm Birth</td>
<td>Brazilian Ministry of Health; National Council for Scientific and Technological Development; Gates Foundation</td>
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<td>Grand Challenges Explorations (Round 11)</td>
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<td>March 2013</td>
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<td>Stars in Global Health (Round 6)</td>
<td>Grand Challenges Canada</td>
<td>May 2013</td>
<td>Jan. 2014</td>
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<td>Grand Challenges in TB Control</td>
<td>Gates Foundation, USAID &amp; IKP Knowledge Park</td>
<td>June 2013</td>
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CURRENT OR FUTURE REQUESTS FOR PROPOSALS (RFPS)

Achieving Healthy Growth through Agriculture and Nutrition: Opened August 2013, closes October 31, 2013
This first program under the Grand Challenges India partnership seeks approaches to reduce the high incidence of low birth weight, stunting, and wasting in Indian children less than two years of age and to prevent undernutrition in women of reproductive age. Grants will be to Indian researchers, but international collaborations are encouraged. For more information from BIRAC, please click here.

Making All Voices Count: Opened September 2013, closes November 8, 2013
Making All Voices Count is a Grand Challenge for Development supported by DFID, USAID, SIDA, Open Society Foundations and Omidyar Network that seeks innovations that harness new technologies to grow the global movement for open government, transparency and accountability.

Grand Challenges Explorations (Round 12): Opened September 2013, closes November 12, 2013
Round 12 of the Grand Challenges Exploration grant program will seek to fund grants focused on one of five topics. Initial grants of US$100,000 are available and successful projects have the opportunity to receive a follow-on grant of up to US$1 million.

Securing Water for Food: Opened September 2013, close TBD
USAID and SIDA launched Securing Water for Food, a US$25 million Grand Challenge for Development at World Water Week in Stockholm. Funds will be used to identify and accelerate science and technology innovations and market-driven approaches that improve water sustainability for boosting food security.

Reinvent the Toilet Challenge: India: Opened October 2013, closes November 15, 2013
This is the second program launched under the Grand Challenges India partnership. Partners will support Indian investigators to drive research, development and production of the next-generation toilet to solve sanitation challenges in India.

Saving Brains (Round 4): Opened October 2013, closes January 16, 2014
Grand Challenges Canada has launched its fourth Saving Brains RFP to seek out bold ideas for products, services, policies and implementation models that protect and nurture early brain development in a sustainable manner.

Global Mental Health (Round 3): Open October 2013, close TBD
Grand Challenges Canada has launched its third Global Mental Health RFP. The Global Mental Health initiative seeks to improve treatment and expand access to mental health care in low- and middle-income countries. This RFP is open to innovators from low- and middle-income countries and Canada.

Stars in Global Health (Round 7): Open November 2013, close TBD
Grand Challenges Canada’s Stars in Global Health will launch its seventh RFP, which seeks ideas that reflect the full spectrum of global health R&D. Anyone from low- and middle-income countries and Canada can apply. Phase I awards are initially valued at CAD$100,000. Phase II scale-up funding matched up to CAD$1 million may also be awarded.

Saving Lives at Birth (Round 4): Open early 2014, close TBD
Saving Lives at Birth is opening its fourth RFP to fund groundbreaking prevention and treatment approaches around the time of delivery for pregnant women and newborns in poor, hard-to-reach communities. Additional information will be available soon.

Grand Challenges Explorations (Round 13): Opens March 2014, closes TBA
Round 13 of the Grand Challenges Exploration grant program will seek to fund grants focused on one of several topics. Initial grants of US$100,000 are available and successful projects have the opportunity to receive a follow-on grant of up to US$1 million. Additional information will be available soon.
NEWS AND RESOURCES

“Seven Lessons from Crowd-Sourcing the World: How Grand Challenges and Prizes Have Helped Us Improve Development.” LinkedIn, September 30, 2013
Alex Dehgan, Science & Technology Adviser to the Administrator at USAID, shares lessons-learned from launching five Grand Challenges for Development RFPs.

Podcast: Saving Lives at Birth: Up for the Challenge, YouTube, August 20, 2013
In July, USAID co-hosted a three-day Saving Lives at Birth meeting where they announced 22 innovators who will receive funding to explore bold, cost-effective ideas that could save the lives of mothers and newborns in developing countries. Several of these potentially life-saving innovations are highlighted in the podcast.

“Addressing Ethical, Social and Cultural Issues in Global Health Research.”
PLOS Neglected Tropical Diseases, August 8, 2013
Drawing on lessons-learned from the Ethical, Social and Cultural (ESC) program of Grand Challenges in Global Health, a new study provides a set of best-practices to improve global health ESC programs.

“Fresh bid to boost maternal, child care.” The Daily Nation, August 2, 2013
The Daily Nation highlights the potential impact a dual grant from Rising Stars in Global Health and Saving Lives at Birth could have on pregnant women and children in Nandi County, a region in Kenya where women do not regularly attend health clinics. At present, the grants have funded 80 community health workers to build a digital cell phone database that tracks patients and encourages regular follow-up.

“Can a Soccer Ball Save a Woman’s Life?” The Atlantic, August 1, 2013
In an effort to end maternal and child deaths in developing countries, USAID hosted a science fair for inventors with unconventional ideas that could unlock solutions to these challenges. The Atlantic highlights several of these innovative ideas, including a cheap respiratory machine made out of an aquarium pump and a water bottle and a hand-cranked heart monitor that requires no electricity.

“USAID hails ‘eureka moments’ in infant, maternal health.” AFP, July 31, 2013
US National Security Advisor Susan Rice praised the Saving Lives at Birth grant program for its creative approach to decreasing maternal and infant mortality. Through innovative ideas and “unorthodox partnerships,” Saving Lives at Birth grantees are seeking out more “eureka moments” to accelerate progress around the persistent challenges faced by researchers in this area.

“Iron brew: Canadian wins grant to develop fortified tea to help save lives.” The Globe and Mail, July 31, 2013
Levente Diosady, a professor of chemical engineering and applied chemistry at the University of Toronto, received a US$250,000 Saving Lives at Birth grant that will allow him to explore whether fortifying tea leaves with iron could help reduce the maternal and perinatal death rate in the developing world.

Through a Grand Challenges Explorations grant topic, “Develop the Next Generation of the Condom,” the Bill & Melinda Gates Foundation hopes to address both unintended pregnancies and the prevalence of sexually transmitted diseases, including HIV/AIDS, by reinventing the condom to make it both easier to use and capable of preserving or enhancing pleasure.

2013 Annual Letter from Dr. Peter A. Singer. May 3, 2013

Grand Challenges Canada’s third anniversary was on May 3, 2013. To mark the occasion, the Chief Executive Officer, Dr. Peter A. Singer, released his Annual Letter. The letter touches briefly on Grand Challenges Canada’s accomplishments over the past year and highlights some of the projects and innovators that are already showing promise, thereby reinforcing the value of the Grand Challenges approach.

“Canada, Uganda test drug to treat brain disease.” _Agence France Presse_, May 1, 2013

With a seed grant of CAD$100,000 from Grand Challenges Canada, Uganda’s Infectious Disease Institute at Makerere University will test whether or not Sertraline, better known as Zoloft or Lustral, can be used to stem early deaths from cryptococcal meningitis—an infection of the tissue covering the brain that claims 600,000 lives in sub-Saharan Africa annually.

“Grand Challenges: Innovative ideas for saving lives get a leg up.” _Toronto Star_, April 29, 2013

Grand Challenges Canada announces CAD$10.9 million in seed money to develop enterprising ideas aimed at saving and improving lives in the developing world.

“Interview with Dr. Tony Fauci.” _MSNBC, The Last Word with Lawrence O’Donnell_, March 25, 2013

Dr. Tony Fauci of NIAID highlights the important role of Grand Challenges and, in particular, the Grand Challenges Explorations topic “Develop the Next Generation of the Condom,” because it provides the seed funding that “could get some bright person to get an idea that might actually be translated into a product,” such as a next-generation condom.

_Stirring the Fire: A Global Movement to Empower Women and Girls_, Phil Borges

Through a photo exhibition called “Stirring the Fire,” Phil Borges seeks to promote social change by telling the story of heroic women in developing and war-ravaged countries who have fought gender discrimination to make a positive difference on their communities.

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**ENDNOTES**

**EMAIL SIGN-UP**
For the timeliest updates, including alerts of new grant opportunities, please visit the pages below:

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- Biotechnology Industry Research Assistance Council (BIRAC), India: http://www.birac.nic.in/index.php
- Ministry of Health of Brazil: http://portalsaudesaude.saude.gov.br/portalsaudae/index.html

**PAST NEWSLETTERS**
For a link to past newsletters, please [click here](#).

**WHAT’S NEXT?**
This is the third Grand Challenges newsletter, and we hope you find it useful. Please forward it to colleagues who might be interested. The next issue will be released in Spring 2014.