

GLOBAL HEALTH MATTERS

Fogarty International Center

National Institutes of Health

Department of Health and Human Services

Gates grant launches nutrition study



Photo by Alejandro Lipszyc, World Bank
 Poor nutrition may be linked to intestinal infections in children like these, who are eating free school lunch in Una, Brazil.

The Foundation for the National Institutes of Health and Fogarty have launched a five-year study to investigate the linkages between malnutrition and intestinal infections and their effects on children in the developing world.

An estimated 20 million children under 5 are severely malnourished, leaving them more vulnerable to illness and early death, according to the World Health Organization.

The project is funded by a grant of nearly \$30 million from the Bill & Melinda Gates Foundation to the FNIH.

Poor nutrition in early childhood may lead to cognitive defects and poor physical development, may increase susceptibility to and severity of infections and may diminish the effectiveness of childhood vaccines.

At the same time, infections causing diarrhea can damage the intestines, impair nutrient absorption and harm the immune system.

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Recovery Act boosts global health

Under the American Recovery and Reinvestment Act, Fogarty will receive about \$17 million in direct appropriations to award over two years.

“We are extremely grateful to President Obama and Congress for recognizing the economic and health impacts of research and providing Recovery Act funding to allow us to expand our programs,” said Fogarty International Center Director, **Dr. Roger I. Glass**.

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“Through this support, we will increase U.S. competitiveness in global health, accelerate the pace of scientific discovery and preserve and create jobs, particularly among early career scientists who will become the global health leaders of the future.”

Fogarty plans to invest about 40

percent of its ARRA funds in new awards that were previously deemed meritorious in peer review but were not funded due to lack of resources.

In addition, the Center intends to award about 55 percent of its ARRA funding in administrative supplements that will preserve and create jobs, as well as enhance current projects.

A significant portion of this funding will support fellowships for early-career U.S. scientists to foster the next generation of global health leaders.

The Center is also using the supplements to encourage the incorporation of information and communication technologies (ICT) into its programs to enhance their quality, effectiveness and reach, as well as to strengthen the collaborative aspects of international teams.

In keeping with the Center’s normal funding ratio, about 29 percent of the ARRA awards will be research project grants.

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Gates grant may help explain link between nutrition and infections

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“We anticipate that this research network will make critical discoveries that will help us save the lives of those most at risk—the world’s youngest and poorest children,” said Dr. Tachi Yamada, president of the Gates Foundation’s global health program.

FNIH and FIC are coordinating the research effort, which will be conducted in collaboration with other partners, including universities in the United States and institutions in the developing world.

These partnerships will establish a network of urban and rural sites in Asia, Africa and South America. Locations were chosen on the basis of their diversity of exposure to intestinal pathogens, disease prevalence, investigator experience and local scientific capacity.

FNIH Chairman **Dr. Charles A. Sanders** said, “With the establishment of this remarkable partnership, we hope to shed light on critical questions such as which organisms or infections disrupt growth and development, as well as identify the time in early life when those factors have the greatest impact on morbidity and mortality.”

The network will be coordinated by **Dr. Michael Gottlieb** of FNIH and **Dr. Mark Miller** of Fogarty.

“The interactions between diarrheal diseases and malnutrition seem to produce a vicious cycle that has devastating developmental consequences for the world’s poorest children,” said Fogarty Director **Dr. Roger I. Glass**.

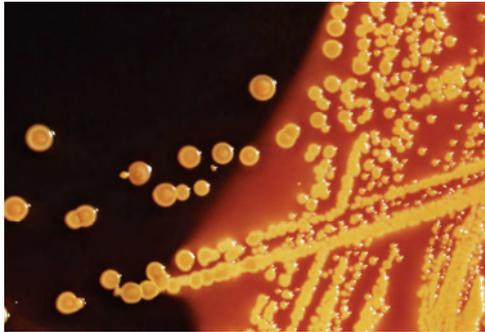


Photo courtesy of CDC
Colonies of *E. coli*, which can begin a vicious cycle of infant diarrhea and malnutrition.

“We have much to learn about this relationship and expect that the robust and expanding network that we are establishing will provide us with a wealth of useful information.”

In addition, the genetic diversity of the human populations involved in the network will enable investigators to study the host factors responsible for differential susceptibility to infectious agents and malnutrition.

These associated genomic studies will be supported by Gates Foundation awards to the University of Virginia and to Washington University, St. Louis.

The network’s main objectives are to create a standardized and harmonized set of epidemiological tools to accurately study the links between intestinal infections and gut physiology as risk factors for malnutrition across a number of diverse sites in the developing world.

For more information, visit <http://tinyurl.com/cqx7b9>

UK devises five-year global health strategy

Dr. Nicholas Banatvala, head of global affairs for Britain’s Department of Health, recently visited Fogarty to explain his government’s five-year strategy to improve health in a world it once dominated.

The “Health is Global” campaign endorsed by the prime minister (*see p. 14*) lays out 41 commitments involving every government agency and aims to integrate medical care, research and diplomacy in the service of better world health.

Five areas for action include: better global health security; stronger, fairer and safer delivery systems; more

effective world health organizations; stronger, freer and fairer trade for better health; and stronger use of evidence in policy and practice.

Banatvala noted that the first principle is to “set out to do no harm and, as far as feasible, evaluate the impact of ... domestic and foreign policies on global health.”

“This document is unique in that it has buy-in from every UK government agency and takes into account the diplomatic value of global health efforts,” says Fogarty’s director of international relations **Dr. James Herrington**.

For more information, visit <http://tinyurl.com/4kxaf8>



Dr. Nicholas Banatvala

New Fogarty advisory board members



Dr. Roscoe Moore, Jr., a retired rear admiral with the Public Health Service and a former assistant surgeon general, was responsible for development support within the HHS Office of the Secretary, with an emphasis on low- and middle-income countries. He is on the Maryland Health Care Commission.

Dr. Gail Cassell is vice president of scientific affairs and Distinguished Lilly Research Scholar for infectious diseases at Eli Lilly and Company. She is also professor emeritus and former chairman of the Department of Microbiology at the University of Alabama Schools of Medicine and Dentistry at Birmingham.



Dr. Donald A. B. Lindberg, is director of the National Library of Medicine at NIH and a pioneer in applying computer technology to health care. From 1992-1995 he was director of the Office for High Performance Computing and Communications in the White House Office of Science and Technology Policy.



ex officio



ex officio

Dr. Barbara Alving, director of the National Center for Research Resources, is a professor of medicine at the Uniformed Services University of the Health Sciences. She has been awarded the U.S. Legion of Merit by the Army for work that improved the care of soldiers in combat, is co-inventor on two patents and has published more than 100 papers.



Dr. Bonita F. Stanton is professor and chair of pediatrics at Wayne State University and pediatrician-in-chief at Children's Hospital of Michigan. In the 1980s she was director of the Urban Volunteer Program at the International Centre for Diarrheal Disease Research, Bangladesh.

Dr. Ariel Pablos-Mendez is a managing director at the Rockefeller Foundation and professor of clinical medicine and epidemiology at Columbia University. At the Rockefeller Foundation, he led a public-private partnership program that promoted product development for diseases of poverty.



Americans want global health as a priority

Most Americans surveyed by the advocacy alliance Research!America believe the United States should increase its investment in global health and would be willing to pay a dollar a week more in taxes to achieve it.

According to the survey, 58 percent want Congress to make global health a priority and 60 percent of Americans are willing to pay a small amount toward that goal.

"These results show that, even in hard economic times, Americans see the value of global health research for themselves and people everywhere," said Research!America President Mary Woolley.

The polling also shows:

- Nine in 10 Americans are concerned about the health problems facing the world today, and half say they

think more about global health than they did in 2003.

- Seventy-seven percent say the United States would be better off with more investment in research to improve health around the world.
- Three-fourths say Americans should worry about diseases like malaria, dengue fever and cholera that mostly affect poorer countries.
- Nearly half say the United States has a great deal of responsibility to conduct research that would prevent diseases that disproportionately affect poorer countries.

The online sample of 1,000 U.S. adults by the Charlton Research Company is proportionate to the nation's demographics, including geography, gender, income and ethnicity, with a margin of error of ± 3.1 percent.

Fogarty scholar does more than research—she runs a charity

In August of 2007, Breanna Barger began living out her high school dream of making a difference in health by setting out for Mali as a Fogarty International Clinical Research Scholar planning to conduct malaria studies.

Working in the pediatric emergency room at Gabriel Touré National Hospital in the capital city of Bamako near the end of her stay, “I saw patients die because their families could not afford simple antibiotics, and I knew I had to do something.”

So the University of Washington medical student started her own relief fund, at first paying for drugs out of her own pocket, then e-mailing home for some donations from friends and family.

“There was an outpouring of support,” she recalls. “In a week I got about \$5,000.” In Mali—where the per capital annual income is \$460 and about half the population is under 14—it went a long way.

Her father raised some money at work, friends sent donations and Breanna got the Montana-based Jeanette Rankin Peace Center to assume the administrative responsibilities of her newly christened Mali Relief Fund so that donors could take tax deductions.



This 10-year-old boy's amputation, hospital care and prosthesis were paid for by the Mali Medical Relief Fund.

This spring she sent another pitch when friends and family were getting tax refunds they might donate.

“People are amazed at how little it takes to make a substantial impact,” she says, citing the \$25 it takes to treat a child with pneumonia in a hospital for a week, or the \$250 it cost for surgical amputation, two weeks of hospitalization and prosthesis for a boy whose leg was crushed in an accident.



Breanna Barger reviews her work in Mali on pediatric malaria at a gathering of applicants for Fogarty's International Research Scholars program.

Her first assignment in Mali, a landlocked African country with a rich culture but some of the world's worst poverty, was at a tiny clinic in the town of Kollo, where the routine tests were processed in a lab powered by a generator.

It was there she conducted a clinical trial that produced a significant finding that intermittent preventive treatment with artemisinin-based drugs reduced febrile malaria in schoolchildren by up to two-thirds compared to those receiving standard Vitamin C therapy.

“Fogarty gave me a chance to do what I always wanted to”

Although she speaks French, the country's official language, and had been to Mali three years earlier as part of a National Institute of Mental Health research team studying schizophrenia in pre-industrial populations, Breanna did not list it as her preferred site when applying to the Fogarty program.

“They kind of chose me,” she laughs.

Growing up on the Flathead Reservation in the northwestern Montana town of Arlee, Breanna saw the kind of poverty that played a part in her career choice of helping people in need.

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This charity begins far from home

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“Fogarty gave me a chance to do what I always wanted to,” she says. “This is so much more of what I thought medicine would be about than what you actually do in the United States.”

Engaged to a Malian, she plans to return to the country for research after her pediatrics residency at Johns Hopkins but maintain a home in the United States.

The Mali Medical Relief Fund, however, is going to require sustainability of its own while Breanna finishes her medical training, and her former colleagues at Gabriel Touré are trying to pick up the slack.

She hopes to make her charity independent eventually, even as she embarks on a career in malaria research. “This is the kind of work I hope to continue doing. I find it very rewarding and I have a lot more energy for it.”

For information about the Fund and how to donate, visit <http://tinyurl.com/d9kqh4>



Children outside the pediatric clinic in Kollo, Mali, examine the Polaroid pictures taken of them by Fogarty Scholar Breanna Barger.

Sustainability key to malaria fight

Fogarty recently convened a meeting of top government experts to encourage smoother coordination of efforts in the fight against malaria in sub-Saharan Africa.

Dr. Bernard Nahlen, the deputy director of the President’s Malaria Initiative, agreed with Center Director **Dr. Roger I. Glass** that there is cause for optimism. “We are moving ahead,” Nahlen said. “The first couple of years demonstrated success in making sure the money was being used effectively, and it bought us a lot of good will with Congress.”

Nahlen called the session “important to the understanding of what NIH does, what CDC does and how we can actually work within the spirit of the congressional language” creating PMI, which requires interagency consultation and a recognition of the role of research in the malaria effort.

The consultation involved program staff from Fogarty, PMI, the U.S. Agency for

International Development, the Centers for Disease Control and Prevention, National Institute of Allergy and Infectious Diseases, National Institute of Child Health and Human Development and the National Library of Medicine.

The Initiative was created by President Bush and began operations in three countries in 2006, eventually expanding to 15, where it has delivered preventive and treatment

services to more than 25 million people in the first two years.

PMI operates in many of the African countries where Fogarty sponsors research training: Ethiopia, Kenya, Madagascar, Malawi, Mali, Senegal, Tanzania, Uganda and Zambia plus Angola, Mozambique, Rwanda, Benin, Ghana and Liberia.

“The prospect of addressing malaria has never been brighter,” Glass said.

But he cautioned the key to success is “sustainability” in five areas: training scientists locally, creating data information systems, increasing research capacity, delivering supplies and maintaining economic benefits of malaria control.

Nahlen suggested a sixth area—political commitment in the PMI countries not to abandon short-term successes to divert resources elsewhere only to find the disease re-emerging later.

For more information on PMI, visit www.fightingmalaria.gov



Photo by Chris Thomas, USAID
New insecticide-treated mosquito nets are distributed to women and children in the Lira district of Uganda.

Haiti honors grantee Johnson;



Dr. Warren Johnson speaks at a ceremony naming a new treatment center for him in Haiti.

Dr. Warren D. Johnson was there when Fogarty's signature AIDS International Training and Research Program began in 1988, and now his name is attached—literally—to one of Haiti's biggest successes.

In February, Johnson, the director of the Center for Global Health at Weill Cornell Medical College, was honored in Port-au-Prince by having a medical center named for him on the new campus of Gheskio, which is a French acronym for the Haitian Group for the Study of Kaposi's Sarcoma and Infectious Diseases.

A second laboratory building was also inaugurated at the ceremony and was named in honor of Rodolphe Mérieux, the late son of the president of the French biotech company, BioMérieux, Lyon.

Founded in 1982, Gheskio is the first institution in the world exclusively dedicated to the fight against HIV/AIDS.

It is a long-time partner with Fogarty in the training of a new generation of infectious disease researchers. Despite Haiti's social and political unrest, Gheskio never once closed its doors to those it serves.

New AIDS training grants awarded

Fogarty has awarded seven grants totaling almost \$2.7 million to train HIV/AIDS researchers in 15 low- and middle-income countries.

The funds were awarded under the Center's 20-year-old signature AIDS International Training and Research Program, which has trained nearly 2,000 foreign researchers, most of whom remain in their countries to battle the epidemic, train young scientists and move into government health leadership.

Recipients of renewal research training grants are Emory University, University of Pittsburgh, University of North Carolina at Chapel Hill and Vanderbilt University.

A new award was made to the State University of New York at Buffalo. Two planning grants were awarded to MU-JHU Care in Uganda and Investigaciones Médicas en Salud in Peru.

"America has become the leader in advancing prevention and treatment of HIV/AIDS in developing countries," says Fogarty Director **Dr. Roger I. Glass**. "Training local researchers benefits their own countries and helps U.S. scientists develop new understanding and methods for combating the disease."

The award to Emory supports established research training programs in Mexico, Georgia, Vietnam, Rwanda and Zambia.

A planning grant for the MU-JHU Research Collaboration in Uganda will support a research training program to build clinical trial capacity for research on prevention of mother-to-child HIV transmission and treating pediatric and adult HIV infections.

The grant to SUNY Buffalo, a first-time recipient, is for postgraduate training in HIV/AIDS clinical pharmacology in collaboration with

the University of Zimbabwe.

The University of North Carolina grant would continue training programs in China, Malawi and Cameroon, giving preference to trainees with guaranteed jobs in their home countries after they leave the program.

The University of Pittsburgh is emphasizing "south-to-south" partnerships, adding a training site in Portuguese-speaking Mozambique, where researchers can work with their counterparts from the Pitt program in Brazil who speak the language.

The grant to Investigaciones Médicas en Salud will support planning a research training program to establishing an AIDS Research and Training Program in Peru.

The Vanderbilt award adds Mozambique to its training program, which also has sites in Zambia, Pakistan, India and China.

Fogarty's training role cited

Johnson, one of the first AITRP grantees, taught **Dr. Jean William (Bill) Pape** at Cornell's medical school in the 1970s. Pape returned to his native Haiti and went on to found GHESKIO, becoming a Fogarty grantee himself and an internationally recognized leader in AIDS research.

GHESKIO has been an emulated model for global health practitioners since its inception.

The Johnson Center is part of the organization's integrated model for HIV/AIDS prevention and care and more than doubles its capacity to provide patient services and a wide range of training.

Research at GHESKIO has resulted in more than 100 articles published in major journals, including the first article describing the characteristics of HIV/AIDS in the developing world, which appeared in the *New England Journal of Medicine* in 1983.

Johnson's career has been devoted to research and training in resource-poor countries. Besides conducting innovative research, he has also set up long-term training programs in Tanzania and Brazil.



Opening the Warren D. Johnson, Jr. Medical Center in Port-au-Prince are, from left, GHESKIO Secretary-General Dr. Marie Marcelle Deschamps, French ambassador to Haiti Christian Conan, long-time Fogarty grantee **Dr. Warren D. Johnson Jr.**, Alain Mérieux (president of the French Biotechnology company, BioMérieux, Lyon), **Dr. Jean Pape** and U.S. ambassador Janet Ann Sanderson.

AIDS pioneer says Fogarty is 'cornerstone'

Dr. Jean William (Bill) Pape is the founder of the world's first organization devoted exclusively to fighting HIV/AIDS. He was interviewed recently about GHESKIO's relationship with Fogarty.

Q.—How do you see Fogarty's role in biomedical research and in global health?

A.—“I can say that for us in Haiti, Fogarty has been the cornerstone of the entire program. And it has impacted national mortality in adults and in children. There is no way we would have been where we are now without this program. This program has trained the leaders in our field, who themselves have trained thousands of others.”

Q.—What has been the value of your Fogarty trainees?

A.—“We train them not to do esoteric research. We train them to solve a problem. Fogarty has impacted not only the global number of trainees, but the fact that they focus the trainees on what can be accomplished.”

Q.—What do you think of the Fogarty model of U.S. institutions working with local partners?

A.—“What Fogarty has given us the possibility to do is to use the U.S. institution as the backbone for change to happen. But the change has to happen from the inside—that's the only way that change occurs.”

Q.—Overall, what has distinguished the Fogarty program from other supporters?

A.—“What was most important is the fact that the program itself is flexible enough to adjust to the countries' needs. ... They are our partners. It's not a monitor that sits there and tells you, well you did a good job or you did a bad job. We are working together. And I think that this is a partnership that has made things so wonderful.”



Dr. Jean William (Bill) Pape, Haiti's top AIDS expert and a Fogarty grantee, trained under Dr. Warren Johnson.

Haiti's new research corps —

Port-au-Prince, Haiti—As a new generation of Haitian researchers joins GHESKIO's ranks, they're steeped in the philosophy that has been fundamental to the center's success—that the classroom, the lab and the clinic are closely linked and each plays an essential role in the research cycle.

Training improves the quality of the research, which leads to better implementation of treatments and interventions, which results in better care, they say. In turn, contact with the patients informs the research process.

Many in their ranks have completed research training both locally and abroad, much of it with Fogarty support. Such opportunities are essential to building sustainable research capacity in Haiti, says GHESKIO physician-scientist **Dr. Cynthia Riviere**.

"If you bring the expertise from abroad into the country and then they deliver and then they leave, then what's left behind?" she says. "You risk going back to ground zero. Because there's no continuity, there was no one who was trained to do the follow-up."

Riviere was one of the initial graduates of Haiti's new master of public health program, the country's first degree-level health research training. Situated at Quisqueya University, adjacent to GHESKIO's main clinic, it was developed by the two institutions in collaboration with Cornell University and Fogarty. It has the capacity to train up to 25 participants each year, in contrast to the small number that could be sent abroad to study.



Dr. Cynthia Riviere is one of the initial graduates of Haiti's first master's in public health program.

gain from having this training here in our own country," says **Dr. Patrice Joseph**, who teaches in the MPH program and leads TB and HIV research projects.

The master's curriculum acknowledges the country's unique cultural issues. For example, Riviere is researching

cervical cancer screening, a challenge in a place where many women are not used to gynecological exams.

Haiti's long tradition of voodoo also affects health care delivery.

"When a patient comes to you, you have to tell him, 'OK, I can understand that there is a spiritual thing regarding your illness, but at the same time, as a physician there is something I can contribute.' You can't deny his beliefs," says **Dr. Patrice Severe**, a GHESKIO researcher and clinician for 10 years.



Dr. Patrice Severe says contact with patients in GHESKIO's clinic informs his research approach.

Because the Haitian scientists speak the native Creole language and understand the cultural sensitivities in a way foreigners may not, they can often more easily formulate the pressing research questions and develop the most effective solutions. These efforts can be surprisingly successful.

For instance, it was assumed that antiretroviral regimens were too complicated for use in people with HIV in low-resource countries.

Severe was first author on a seminal research paper that proved otherwise—antiretroviral therapy worked as well among Haitians as it did Americans.

Syphilis transmission from mother to child is another significant health problem for the country.

Dr. Linda Severe, who heads GHESKIO's sexually transmitted diseases unit, helped confirm a new rapid diagnostic test that could be used at remote sites was nearly as accurate as the more time-consuming lab version.

If a pregnant woman tested positive, she could immediately be given a shot to prevent transmitting the

building on past successes

disease to her child.

“That’s the power of research, you improve people’s lives,” she says. “Even though it’s a poor country— you think research might be difficult— still there are things that can be done.”

Periodic training opportunities in more advanced countries are essential to keeping GHESKIO’s leaders informed and alerting them where they need to be headed, they say. But everything must be adapted for use in Haiti.

“It’s the ideal that you need to reach, but you need to reach it in your own environment and you need to work with what you have and know what your problem is,” Riviere says.

For example, the new HPV vaccine may have the potential

to reduce cervical cancer deaths in Haiti. But it targets only certain strains of the virus.

Linda Severe has many questions to study to determine if the vaccine will help locally. “You have to do research in order to take advantage of what the world has to offer,” she says. “How will people embrace it, will they be scared of it? Will they accept it?”

With so many health problems to be solved and so many research discoveries to be implemented, the center’s leaders stress the importance of continued training to ensure GHESKIO’s future.

This new generation must be ready to carry on the work begun by the center’s founder and leader, Dr. Bill Pape, and to build on his record, says Joseph. “GHESKIO should be an institution that we will have forever in Haiti.”

Grief provides motivation for master’s student

Port-au-Prince, Haiti—Despite growing up in a wealthy Haitian family of European descent with access to the best available health care, Verena de Matteis has suffered the pain of losing family members to malaria and AIDS, the scourges that continue to devastate her country.

As a child, De Matteis watched her beloved grandmother wither away for a decade, as AIDS took her strength and eventually her life. When she was diagnosed in 1982, HIV/AIDS research was in its infancy.

Then, three years ago, tragedy struck again. Her father fought to recover from what he thought was the flu, after testing negative for malaria.

Within days, he slipped into a coma and died from organ failure—caused by malaria. There was no kidney dialysis machine in Haiti, and little that could be done to save him.

As the eldest child, de Matteis felt obliged to leave her management trainee job in New York and return to Haiti to stabilize the family’s import-export business.

She thought she’d return to the United States in six months but didn’t have a grand plan for her career. Her grief provided some clarity. She decided to join the fight against malaria.

“My father is an inspiration to me,” she says. “It’s really weird how his passing, unfortunately, has really brought

my life more into focus.”

In order to make a difference, de Matteis knew she needed further education. She was pleasantly surprised to discover there was a high-quality master’s in public health program right in her hometown of Port-au-Prince.

In January, she enrolled in the new program established at Haiti’s Quisqueya University in collaboration with GHESKIO, Cornell and Fogarty.

She says it’s important that Haitians acquire the tools that will allow them to solve their own problems.

“We often rely on a lot of international aid to take care of a lot of things, and obviously we need that aid, it’s very important, but I think that in the long run we really need to have a self-sustaining country in terms of everything. And the problems need to be solved by us.”

De Matteis plans to write her thesis on some aspect of malaria eradication in Haiti and then apply what she’s learned.

Although her life has turned out differently than she expected, she says she can make more of a difference here.

“Haiti has a way for me of keeping things in perspective— what’s really important in life and not superficial things.”



Haitian master’s in public health student Verena de Matteis says her country’s problems must be solved with local expertise.

Grants will strengthen AIDS/TB work

Fogarty has awarded \$11.75 million in grants to institutions to strengthen the fight against AIDS and tuberculosis in Haiti, Uganda and China and establish a new program in Tanzania.

The five-year International Clinical, Operational, and Health Services Research and Training Awards for AIDS and Tuberculosis for researchers from those countries are aimed at closing the gap between what is known about preventing and treating the diseases and achieving results in countries where the two diseases often coexist.

A new award was granted to Muhimbili University of Health and

Allied Sciences in Tanzania working with the Harvard School of Public Health.

Award renewals were granted to:

- The Chinese Center for Disease Control, working in conjunction with UCLA and Yale University.
- The Haitian Study Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO), one of the world's oldest country-wide AIDS organizations, in conjunction with Quisqueya University and Zanmi Lasante in Haiti and Weill Medical College of Cornell University and Dartmouth College.

- The Joint Clinical Research Center in conjunction with Makerere University, Mbarara University of Science and Technology, Kampala City Council, National TB and Leprosy Control Program and Gulu University in Uganda and the University of Georgia in conjunction with Case Western Reserve University.

The program, under which the awards are made is the flagship for addressing the new field of implementation science, which Fogarty has made one of its goals.

The program also operates in Brazil, Peru, South Africa and Zimbabwe.

Acoustic fan could ease pollution

Scientists are devising new models for the elemental stove used by half the world's population for cooking or heating but which is a large contributor to indoor pollution and disease estimated to take 1.6 million lives a year.

When people use the cook-stoves,



Photo courtesy NIEHS

Cookstoves like this one used by a Guatemalan woman can be made less polluting by use of a fan.

they usually are burning biomass—dung, wood, soft coal or rice husks—all of which produce toxic carbon emissions, increasing the risks of low birth weight, asthma and cardiovascular disease, among others.

“People will burn whatever is readily available,” said William Behn, of the State Department's East Asia bureau at a meeting of NIH staff concerned with international health.

It is a known problem at the individual level, but recently the amount of soot crossing national borders and pollution caused by new technology makes necessary the development of alternate heating sources, Behn said.

Behn and State Department science fellows Steve Garrett and Phil Hopke said that adding a fan to the stoves would reduce emissions and cooking time.

Garrett demonstrated a small thermoacoustic engine that



Dr. Steve Garrett shows how sound waves can generate an engine to turn heat into energy for use in cookstoves.

would turn heat from the stove into energy to run a fan by using rapidly vibrating sound waves generated by an inert gas in the device.

“It is robust, inexpensive and low maintenance,” said Garrett, noting that to make a difference there might need to be as many as one billion units that are easy to use, efficient, able to be mass produced and distributed.

Top health positions are being filled

Kansas Gov. **Kathleen Sebelius** was expected to win confirmation as secretary of the Department of Health and Human Services.

She testified to the Senate that she will work to strengthen the NIH.

William V. Corr, former head of the Campaign for Tobacco-Free Kids was expected to be confirmed as deputy secretary.

Dr. Howard Koh, an associate dean at Harvard School of Public Health, was nominated as assistant secretary for health, the position that directly oversees NIH, the Centers for Disease Control and Prevention and the Food and Drug Administration.

He was formerly Massachusetts Commissioner of Public Health and worked on tobacco-cessation with various organizations, including the National Cancer Institute.

President Obama also named a number of officials whose



Kathleen Sebelius was twice elected governor of Kansas. Dr. Howard Koh was former Commissioner of Public Health for Massachusetts.

positions have global health implications:

- Dr. Esther Brimmer as assistant secretary for international organizations. She was with the State Department office of policy planning in 1999 and 2000.
- Dr. Phil Gordon as assistant secretary for European and Eurasian affairs. He was on the National Security staff under President Clinton.
- Melanne Verveer as ambassador-at-large for global women's issues, a new post. She was an assistant to President Clinton and chief of staff to first lady Hillary Clinton.
- Dr. Margaret Hamburg as commissioner of the FDA. She is a former HHS assistant secretary and former New York City health commissioner.
- Dr. Joshua Sharfstein as deputy director of FDA. He was health commissioner for Baltimore and led the transition team for the agency.



Obama orders scientific integrity strategy

President Obama's recent decision to lift most federal restrictions on stem cell research was accompanied by a statement of his views on the link between science and public policy.

He said federal agencies will "appoint scientific advisers based on their credentials and experience, not their politics or ideology."

In addition, he ordered the head of the White House Office of Science and Technology Policy, Dr. John Holdren, to develop a strategy for restoring scientific integrity to government decision making by requiring that:

- Agencies make available to the public the scientific or technological findings or conclusions considered

"It's time we put science at the top of our agenda and worked to restore America's place as the world leader in science and technology."

or relied upon in policy decisions.

- Agencies use scientific and technological information that has been subject to well-established scientific processes such as peer review.
- Agencies have appropriate rules and procedures to ensure the integrity of the scientific process within the agency, including whistleblower protection.

In signing the executive order on stem

cell research, Obama said, "By doing this, we will ensure America's continued global leadership in scientific discoveries..."

"Let's be clear: promoting science isn't just about providing resources—it is also about protecting free and open inquiry.

"It is about letting scientists ... do their jobs, free from manipulation or coercion ...

"It is about ensuring that scientific data is never distorted or concealed to serve a political agenda—and that we make scientific decisions based on facts, not ideology."

For more information, visit <http://tinyurl.com/dhe2nd>.

Rotavirus vaccines show promise in U.S. but questions remain for rest of world

Two new vaccines against rotavirus are working well without dangerous side effects in the United States, but guidelines for their use may impair full effectiveness in developing countries, according to a *New England Journal of Medicine* article co-authored by Fogarty Director **Dr. Roger I. Glass**.

The vaccines, RotaTeq and Rotarix, have not been shown to be involved with the potentially fatal intestinal condition in infants that led to the first vaccine, RotaShield, being removed from the market in 1999.

Glass and co-author Umesh D. Parashar said the nearly 70 percent drop in U.S. disease activity in 2008, two years after the two vaccines went on the market, is larger than was expected. They suggest the reason could be “herd immunity,” or the absence of rotavirus in older children who were not vaccinated.

Because of problems with RotaShield, current guidelines recommend that the newer products not be given after 14 weeks of age. As a result, there is “the potential to result in

major reductions in vaccine coverage in developing countries, where delays in the timing of vaccination are common and exact age is not accurately recorded,” the article said.

The virus kills half a million children worldwide each year; relatively few in the United States. But Glass and Parashar caution that the vaccines may not be as effective in developing countries, where the need is greatest, because of environmental conditions and the use and timing of other medications.

Glass was recently quoted in *Stanford Medicine* about the work being done by former colleague and former Fogarty grantee Dr. Harry Greenberg to help India develop its own rotavirus vaccine, which could be produced and distributed more cheaply than if it were imported. <http://stanmed.stanford.edu/2009spring/article5.html>

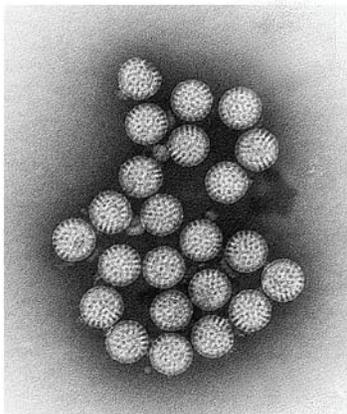


Photo by Charles D. Humphrey, CDC

Negative-stain electron micrograph of rotavirus A

“Rotavirus vaccines—early success, remaining questions.” Umesh D. Parashar and Roger I. Glass. *N Engl J Med*. 2009 Mar 12;360(11):1063-5.

Rights advocate works for scientists

There are about 70 cases of scientists imprisoned for their work or beliefs around the world, and a prestigious group is working quietly on their behalf.

It is the Committee on Human Rights, a 33-year-old organization supported by the National Academy of Sciences, the Institute of Medicine and the National Academy of Engineering, whose director, Carol Corillon, also heads the International Human Rights Network, consisting of science academies around the world.

Developed in 1976 to free well-known Soviet dissidents such as Andrei Sakharov, the problem has not eased, she said. “It just shifts geographically.”

When a case of a scientific prisoner arises, the Committee investigates and, if the person has not advocated violence, Corillon may whip up a campaign of letters from Nobel laureates, arrange visits to the incarcerated and try to pressure the foreign government.

She says she prefers to work “primarily in private, behind

the scenes with heavy hitters from international science.” While the National Academies provide support, Corillon said it takes another \$200,000 a year in donations to meet the prisoners’ needs.

In 2002, through the Network, Corillon helped create the Israeli-Palestinian Science Organization, a charitable organization based in Jerusalem.

IPSO works to revive, foster and fund scientific and scholarly endeavors that are based on cooperation between Israelis and Palestinians.

For more information, visit <http://tinyurl.com/ddjmd2>



Carol Corillon of the Committee on Human Rights discusses the plight of about 70 scientists imprisoned around the world.

Mentoring women in research

Some of the world’s top malaria experts gathered at Fogarty recently to hear the latest research by two women scientists trying to prevent the disease among pregnant women in Cameroon.

“It’s the dream of everyone to find a vaccine for newborns,” said **Dr. Diane Wallace Taylor** of Georgetown University and the University of Hawaii, who appeared with her colleague, **Dr. Rose Leke** of the University of Yaoundé.

They spoke in celebration of International Women’s Day and, beyond their expertise in malaria, both honored the idea of women mentoring women.

Taylor is a National Institute of Allergy and Infectious Disease grantee and previously held a Fogarty grant that resulted in about a dozen malaria experts returning to Cameroon. NIAID organized the event.

“We should all be very thankful to

the Fogarty International Center for their training programs,” Taylor said.

“International Women’s Day is about being role models. It’s about being mentors for women and the way we can begin to equalize women’s role in education and training.”

Leke said her country’s having a ministry of women’s empowerment made a big difference for women in the professions. “We now have models. We didn’t find women before in certain positions but now we’re finding them as role models for others,” she said.

“There’s an incredible interest and surge of young women going into careers in global health,” said Fogarty Deputy Director **Dr. Michael Johnson**.

He noted that nearly two-thirds of the pre-doctoral students who have gone abroad for research training under Fogarty’s Scholars program are women.



Dr. Rose Leke, left, and Dr. Diane Wallace Taylor greet guests at their joint International Women’s Day lecture on the impact of malaria on pregnant women and babies in Africa. Their garb is what they wore at a recent Women’s Day parade of 25,000 in Yaounde, Cameroon, and tells the story of African women educators.



Photo by Jimmy Nyambok/USAID

The largest burden of malaria worldwide is among children under 5 and pregnant women, like this 21-year-old Ugandan. Researchers who spoke at Fogarty are investigating pregnant women’s immune responses.

Career training near parity

The Fogarty Center is part of the trans-NIH Working Group on Women in Biomedical Careers, which reports that women are now close to parity with men on training and mentored career development awards but still lag behind on independent career development awards. Other indicators:

- The number of women supported by mentored research career development awards has increased more than tenfold since 1990.
- Between 1994 and 2006 the number of research grants going to women nearly doubled, and the total amount of those awards increased more than threefold.
- Women received 16.9 percent of all research grants in 1994 and 21.3 percent in 2006.
- Since 1998, the success rate for female applicants on new (Type 1) R01 grants has been slightly higher than that for male applicants.

Guest Opinion

Global health not just about morality

By Gordon Brown

Today, the pace of medical advances and our understanding of illness and disease are greater than ever before, but the challenge for governments and societies across the world is to make these benefits available to all.

This strategy is one way ... to help to build a better fairer world. But global health is a question not just of morality but of security as well.



In today's new global era, flows of commerce, information and ideas transcend traditional borders, but so too do climate change and pandemics like influenza.

And in a world where the old distinction between 'over here' and 'over there' is becoming increasingly redundant, and where our neighbors are closer than ever before, new opportunities also present us with new challenges and risks.

The first duty of any government must be to ensure the safety of its people, but this can no longer be achieved in isolation.

Increasingly it is in our interest not only to uphold the values that underpin our policies at home—liberty, security and justice for all, economic opportunity and environmental protection shared by all—but to promote them actively abroad, and nowhere is this more important than in the field of global health.

Quite simply, healthy populations mean a more secure and economically productive world.

Global health is a force for good, whether in tackling the effects of climate change, reducing the threat from epidemics or pandemic diseases, or increasing access to medicines and innovation.

We know that international cooperation will be essential in helping to achieve these goals, and we should not underestimate the scale of the challenges ahead. ... By harnessing the activities and energies of the many partner governments, agencies and organizations who share our goals I believe that we can make a real difference.

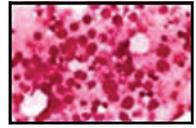
In our interdependent world the health of all peoples is everyone's priority—and good health for all must be our shared ambition.

Gordon Brown is prime minister of the United Kingdom. (From Health is Global: A UK Government Strategy 2008–13.)

Global Health Briefs

New tool for malaria philanthropy

The Center for High Impact Philanthropy at the University of Pennsylvania's School of Social Policy & Practice has published a document intended to help donors make the most useful



contributions to the fight against malaria. *Lifting the Burden of Malaria: An Investment Guide for Impact-Driven Philanthropy* describes examples of promising models, provides cost-per-impact estimates and offers advice on setting a strategy. www.impact.upenn.edu

Circumcision info Web site created



Courtesy of CMC

To combat misinformation about the act of circumcision and its value in preventing AIDS, world health groups have created a Web site to present scientific studies, policy documents and news articles to fight myths about the practice. The site is operated by the World Health Organization, the United Nations AIDS program, the AIDS Vaccine Advocacy Coalition, Family Health International and several universities. www.malecircumcision.org

Migrant women's risks examined

Asian women migrating to Arab states often do so under unsafe conditions, are targets of sexual exploitation and violence and are highly vulnerable to factors that lead to HIV infection, according to a study from several

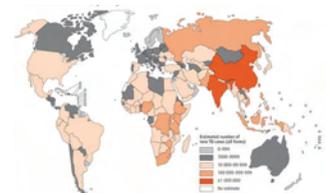


UNDP

international organizations. *HIV Vulnerabilities of Migrant Women: from Asia to the Arab States*, concludes host countries and countries of origin share responsibility to provide protective policies. <http://tinyurl.com/c3mqsn>

TB/HIV deaths higher than known

The number of new tuberculosis cases is remaining stable, but the number of HIV-related cases that cause death is twice as high as previously thought, according to a report from the World Health Organization based on



New TB cases, 2007

WHO

2007 statistics. One out of four TB deaths is related to HIV infection. <http://tinyurl.com/d9oofy>

PEOPLE

World wants health impact, Glass says

Fogarty Director **Dr. Roger I. Glass** told a Boston University forum recently that building local scientific capacity and converting research



Courtesy, BU

findings into practical interventions are keys to sustaining global health gains. "What the world wants is impact, and impact is not whether (an) article is in the *New England Journal*—it's whether lives are being saved." Glass explained that investments in global health pay off abroad and at home in terms of both science and foreign relations.

Kim named president of Dartmouth

Dr. Jim Yong Kim, a member of Fogarty's Advisory Board, has been named president of Dartmouth College. He previously had been chair of the global health and social medicine department at Harvard Medical School. "Jim is a visionary and an accomplished leader in global health. When world opinion thought that HIV treatment couldn't be done in the developing world, Jim initiated WHO's first treatment program that became the model for the President's Emergency Program for Aids Relief," said Fogarty Director Dr. Roger I. Glass.



Grantees publish on male circumcision

A team of researchers including several Fogarty grantees from Johns Hopkins and Makerere University in Uganda recently published a major finding in the *New England Journal of Medicine* that circumcision significantly reduces the incidence of herpes simplex virus type 2 and human papillomavirus infection in men. Previously it was shown that circumcision decreased the incidence of HIV. Support also came from the Bill & Melinda Gates Foundation and NIAID.



Pictured are co-authors **Dr. Thomas C. Quinn** (left) and **Dr. Ronald H. Gray**. Other Fogarty-funded co-authors were **Dr. David Serwadda** and **Dr. Maria J. Wawer**. <http://tinyurl.com/dj6z2s>

Photo by Keith Weller, JHU

Popkin warns about red meat dangers



Courtesy, UNC Gazette

In an editorial accompanying a National Cancer Institute study warning about excessive red meat in the human diet, Fogarty grantee **Dr. Barry Popkin** writes in the *Archives of Internal Medicine* about the link between food coming from animals and global crises affecting water, climate and energy. He cites data that U.S. livestock production accounts for 55 percent of the erosion process, 37 percent of pesticides applied, 50 percent of antibiotics consumed and a third of total discharge of nitrogen and phosphorus to surface water.

Ugandan hailed as PEPFAR inspiration



Photo, Phil Humnicky

Dr. Peter Mugenyi, a Fogarty grantee and founding director of Uganda's HIV/AIDS Joint Clinical Research Center, spoke recently at Georgetown University, along with Dr. Mark Dybul, who headed President's Emergency Program for Aids Relief under President Bush. Dybul said, "Without Peter's program, there would not have been a PEPFAR, because the emphasis was not on the commitment of dollars but ... on how you actually get the job done." <http://tinyurl.com/cq4okw>

Cynthia Gadd elected informatics fellow

Former Fogarty grantee **Dr. Cynthia Gadd** of Vanderbilt University has been elected a fellow of the American College of Medical Informatics. Using a Fogarty grant, Gadd developed and directed a medical informatics training program for scientists, clinicians and other health professionals in sub-Saharan Africa.



Malawi trainees featured on radio series



Photo, Rose Hoban

The University of North Carolina's public radio station undertook an in-depth series on public health in Africa, where former Fogarty trainees in AIDS were featured. Among them was **Dr. Linda Kalilani**, who works in her native Malawi, where one-third of new mothers have AIDS, another third have malaria and 10 percent have both. To read about and hear the series, visit <http://tinyurl.com/ca9793>

FUNDING OPPORTUNITIES

Program	Contact	Receipt Date	Eligibility
Brain Disorders in the Developing World (BRAIN – Non AIDS) (R01) and (R21)	Kathleen Michels, Ph.D. <i>michelsk@mail.nih.gov</i>	May 15, 2009	Collaborative researchers in capacity-building projects on nervous system disorders relevant to low- and middle-income countries.
Fogarty International Research Collaboration – Basic Biomedical Research Award (FIRCA-BB) (R03)	Kathleen Michels, Ph.D. <i>FIRCA@nih.gov</i>	May 28, 2009	Scientists with an active NIH research grant and who want to initiate and/or extend international research collaborations in biomedical research. Applications are encouraged for collaboration with investigators in sub-Saharan African countries.
AIDS International Training and Research Program (AITRP) (D43)	Jeanne McDermott <i>mcdermoj@mail.nih.gov</i>	August 14, 2009	U.S. institutions with strong HIV-related research training experience and collaborations with institutions in low- and middle-income countries.
Phase II Comprehensive ICOHRTA AIDS/TB (U2R)	Jeanne McDermott <i>mcdermoj@mail.nih.gov</i>	August 18, 2009	Institutions in low- and middle-income countries where AIDS, TB or both are significant problems.
Brain Disorders in the Developing World (BRAIN – AIDS) (R01) and (R21)	Kathleen Michels, Ph.D. <i>michelsk@mail.nih.gov</i>	August 21, 2009	Those involved in collaborative research and capacity building projects on nervous system disorders relevant to low- and middle-income countries.

 **Visit: www.fic.nih.gov/funding**

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Fogarty to use ARRA funds

(continued from p. 1)

Fogarty intends to use the remaining funds to support research and development contracts and to secure the administrative staffing necessary to ensure robust ARRA reporting and evaluation needs are met.

Also, Fogarty is participating in the trans-NIH Challenge Grant program that will be supported with centrally managed recovery funds. Fogarty's Challenge topics include chronic diseases, climate change, stigma and several related to bioethics and ICT.

NIH has also requested that each Institute and Center develop one or more Signature Initiative. These are currently being reviewed and will be announced soon.

For more information, visit <http://www.fic.nih.gov/recovery/main.htm>