

# The John Edward Fogarty International Center

## Americans benefit from global health research

**D**iseases know no borders, as we've seen with Ebola, Zika, bird flu, SARS and other infectious disease outbreaks. To protect the health and safety of Americans, the Fogarty International Center has for three decades managed grant programs that develop scientific expertise in developing countries, ensuring there is local capacity to detect and address pandemics at their point of origin, contain outbreaks and minimize their impact. We are all only as safe as our weakest link.

Fogarty, part of the U.S. National Institutes of Health, supports basic, clinical and applied research and training for U.S. and foreign investigators working in the developing world. The Center serves as a bridge between NIH and the greater global health community—facilitating exchanges among investigators, providing training opportunities and supporting promising research initiatives in low-resource settings. Since its establishment in 1968, about 6,000 scientists worldwide have received significant research training through Fogarty programs.

Fogarty funds more than 500 projects involving about 100 U.S. universities. Fogarty also convenes the best scientific minds to address critical global health research problems such as pandemic response, antimicrobial resistance and strengthening research capacity in Africa.

## Contributing to the US Economy

Fogarty awards  
**\$54 million**  
through about  
**500 grants**  
each year

**80%**  
of the funds  
go to U.S.  
institutions

**100%**  
of Fogarty's  
grants involve  
U.S. scientists



### Creating sentinels overseas to protect American health

When Ebola struck Africa in 2014, countries with little or no scientific capacity suffered the most, and the cost of the U.S. response soared above \$1 billion. Sufficiently strengthening scientific expertise at local institutions, training health leaders and linking them to the global network of experts would require just a fraction of that amount. Fogarty recently awarded grants to build partnerships between scientists at four U.S. institutions and their counterparts in Sierra Leone and Liberia. The goal is to train West African scientists to conduct clinical trials safely and ethically, including how to handle and store specimens, obtain informed consent from study participants, and manage and analyze data. When the next outbreak comes, they will be prepared to rapidly implement therapeutic or vaccine trials. By stopping outbreaks where they occur, it is more likely to prevent them from reaching America.

### Unique opportunities abroad can accelerate discoveries

We may learn the key to preventing the ravages of Alzheimer's disease—which is expected to strike one in three Americans and cost \$1 trillion annually by 2050—by studying an extended family with hereditary, early-onset Alzheimer's in rural Colombia. Fogarty has provided critical scientific training so that local researchers can perform brain scans, genetic analysis and other sophisticated approaches that has already enabled a clinical trial of a U.S. manufactured drug that might help stop Alzheimer's at its earliest stage. In rural Brazil, scientists trained by Fogarty to investigate Chagas disease have redirected their research skills to examine Zika when that outbreak began.



# Research and Research Training Programs

**Brain Disorders in the Developing World:** encourages collaborative research and capacity building projects on brain disorders throughout life, relevant to low- and middle-income countries (LMICs), which involve substantial collaboration between developed and developing country investigators and incorporate both research and capacity building.

**Chronic, Noncommunicable Diseases and Disorders Across the Lifespan:** supports collaborative research training to sustainably strengthen research capacity of LMIC institutions, and to train in-country experts to conduct research on chronic, noncommunicable diseases and disorders. Examples include cancer, cardio- and cerebrovascular disease and stroke, chronic lung disease, diabetes, mental illness, neurological, substance abuse and developmental disorders.

**Ecology and Evolution of Infectious Diseases:** funds interdisciplinary research projects that strive to elucidate the underlying ecological and biological mechanisms that govern the relationships between environmental changes and the transmission dynamics of infectious diseases.

**Emerging Epidemic Virus Research Training for West African Countries with Widespread Transmission of Ebola:** funds U.S. or African research institutions to plan research training and capacity building programs focused on emerging viral epidemics in collaboration with institutions in Guinea, Liberia and Sierra Leone.

**Framework Programs for Global Health Innovation:** provides support to institutions in the U.S. and in LMICs to build capacity within their institutions to develop broadly interdisciplinary, postdoctoral (or post-terminal degree) research training programs in global health, encouraging innovation in health-related products, processes and policies. The program emphasizes hands-on, problem-solving, and collaborative approaches and allows U.S. and LMIC trainees to be trained together.

**Global Environmental and Occupational Health:** supports paired consortium led by a LMIC institution and a U.S. institution to plan research training and curriculum development activities that address and inform priority national and regional environmental and occupational health policy issues.

**Global Health Research and Research Training eCapacity Initiative:** funds innovative research education programs to teach researchers at LMIC institutions the knowledge and skills necessary to incorporate Information and Communication Technology (ICT) into global health research and research training.

**Global Infectious Disease Research Training:** enables institutions in the U.S., or in developing foreign countries, to support current and future collaborative research-related training on infectious diseases.

**Global Noncommunicable Diseases and Injury Research:** supports innovative, collaborative biomedical or behavioral and social science research in the areas of noncommunicable diseases and injury throughout life in LMICs.

**HIV Research Training:** strengthens the human capacity to contribute to the ability of institutions in LMICs to conduct HIV-related research on the evolving epidemics in their countries and to compete independently for research funding.

**International Bioethics Training:** allows domestic or foreign institutions to develop graduate, doctoral and postdoctoral curricula, and to provide training in international bioethics related to performing research in developing countries.

**International Collaborative Trauma and Injury Research Training:** supports research training on diagnosis, prevention, and treatment related to injury and trauma in LMICs. Research training programs can be related to prevention, treatment at the scene, emergency medical facilities and services, diagnostic imaging, post-acute care, and long-term care including rehabilitation.

**International Cooperative Biodiversity Groups:** guides natural products drug discovery, botanicals research, crop protection science and bioenergy exploration toward international collaborative models that provide local communities, universities and other organizations from LMICs direct benefits from the diverse biological resources of their countries.

**International Tobacco and Health Research and Capacity Building:** encourages trans-disciplinary research to address the international tobacco epidemic and to reduce the global burden of morbidity and mortality caused by tobacco use.

**Medical Education Partnership Initiative:** supports foreign institutions in sub-Saharan African countries that receive PEPFAR support and their partners to develop, expand and enhance models of medical education, strengthening in-country systems, and building clinical and research capacity in Africa as part of a retention strategy for faculty of medical schools and clinical professors.

**Mobile Health Technology and Outcomes:** funds exploratory and developmental research to develop or adapt innovative mobile health (mHealth) technology specifically suited for LMICs, and the health-related outcomes associated with implementation of the technology.

## Career Development Opportunities for Individuals



**Emerging Global Leader Award:** secures protected time for research scientists in LMICs who hold academic junior faculty positions or research scientist appointments at LMIC academic or research institutions.

**International Research Scientist Development Award for U.S. Postdoctoral Scientists (IRSDA):** supports basic research, behavioral and clinical scientists who are committed to a career in international health research and would benefit from an additional period of mentored research.

**Global Health Program for Fellows and Scholars:**

provides supportive mentorship, research opportunities and a collaborative research environment for early stage investigators from the U.S. and LMICs to enhance their global health research expertise and their careers.



**Fulbright-Fogarty Fellows and Scholars in Public Health:** partners Fogarty and the Fulbright Program—the flagship international educational exchange program sponsored by the U.S. government—to promote the expansion of research in public health and clinical research in resource-limited settings for medical or graduate student fellows and postdoctoral scholars.

For a complete list of Fogarty's programs, visit: [www.fic.nih.gov/Programs](http://www.fic.nih.gov/Programs)