

# Statement of the Acting Director

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**Department of Health and Human Services**

**Statement by**

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**On Fiscal Year 2007 President's Budget Request for the National Institutes of Health**

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Mr. Chairman and Members of the Committee, I am pleased to present the Fiscal Year (FY) 2007 President's Budget for the Fogarty International Center (FIC). The FY 2007 budget includes \$66,681,000, which reflects an increase of \$303,000 over the FY 2006 enacted level of \$66,378,000 comparable for transfers proposed in the President's request.

Forty-seven years ago, Congressman John E. Fogarty noted, "Time and time again, it has been demonstrated that the goal of better health has the capacity to demolish geographic and political boundaries and to enter the hearts and minds of men, women, and children in the four corners of the earth. It is an issue which serves as a forceful reminder of the oneness, the essential brotherhood of man." Congressman Fogarty, the visionary namesake of the National Institutes of Health's (NIH's) John E. Fogarty International Center for Advanced Study in the Health Sciences (Fogarty), recognized that when it comes to disease, we are truly one world. His words and those

of his Congressional colleagues implored us to work for “a healthy America, in a healthier world.”

Today, Fogarty works to meet this goal in two ways: by supporting the whole of the NIH mission via international partnerships, and through the support of global health research and training programs aimed at improving the health of citizens in the United States and around the globe. As a nation, our interest in global health stems not only from humanitarian concerns, but also from an enlightened self-interest. Such interests involve protecting our nation from imported diseases, and political and economic considerations -- healthy, stable countries make strong allies and trading partners. In addition, through partnerships with scientists from around the world, we are able to identify new strategies and new understandings of disease processes, including HIV/AIDS, tuberculosis, and chronic diseases such as heart disease, that affect us all. I welcome this opportunity to relate Fogarty’s progress over the past year and proposed plans for FY 2007. While Fogarty’s programs span over 20 topical areas, I will focus on three exemplars in this summary.

### **THE BATTLE AGAINST HIV/AIDS**

Fogarty continues to place a high priority on combating HIV/AIDS the deadliest pandemic of modern times. According to UNAIDS, an estimated 4.9 million people worldwide became newly infected with HIV in 2004 -- the highest number of new cases reported in any single year since the beginning of the pandemic. As the United States works to combat the spread of AIDS domestically and globally, trained scientists

in countries hard-hit by AIDS are crucial allies in our fight. In the 18-year history of Fogarty's flagship AIDS program, the AIDS International Research and Training Program (AITRP), Fogarty has helped train 2,000 health scientists, including Ph.D. and Masters level researchers from developing countries working on AIDS. More than 50,000 have received short-course training in their home countries through this program. These scientists represent a substantial increase in the global capacity to fight AIDS and provide a wealth of allies in our international struggle.

Haiti has the largest number of people living with AIDS in the Caribbean. For almost two decades, Fogarty has invested in research and public health infrastructure to combat the HIV/AIDS crisis there. Haiti has now begun to "turn the corner on AIDS," according to Dr. Jean Pape, Haiti's leading AIDS researcher and long-standing Fogarty collaborator. As a result of Fogarty's work and that of partner agencies, HIV seroprevalence at a key sentinel site in Haiti dropped from 6.3% in 1993 to 2.9% in 2003.

Due to this strong research base, Dr. Pape's institution received a grant from the President's Emergency Plan for AIDS Relief (PEPFAR), allowing 2,000 patients to receive antiretroviral therapy. An analysis of the first 1,000 patients at the one-year follow-up indicates outcomes comparable to those achieved in U.S. in terms of survival; other indicators show reduced amounts of HIV in the blood of AIDS patients, as well as increased amounts of cells that are critical to staving off the impacts of HIV. None of this would have been possible without the vision and foresight of Fogarty,

working hand in glove with NIH partners, including the National Institute of Allergy and Infectious Diseases.

In FY 2007, Fogarty plans to expand both major AIDS programs in its portfolio. The AITRP expansion would involve new U.S. universities, including minority institutions, important partners as we work to address global health challenges and the range of U.S. challenges on AIDS. In addition, Fogarty's new training program in clinical, operational and health services research would be expanded to build much needed expertise in monitoring and evaluating AIDS programs abroad.

#### **ADDRESSING THE THREAT OF EMERGING AND RE-EMERGING INFECTIOUS DISEASES: PREDICTION AND PREEMPTION**

Little is known about the ecological factors that lead to the emergence or re-emergence of infectious diseases, including potentially pandemic diseases such as avian flu. We do know that most new diseases come from animals, both wild and domesticated. But beyond that we have little ability to predict the emergence of new diseases, or how new or existing diseases spread among animals, and from animals to humans. To better understand the relationships between ecological factors that drive emergence and transmission of infectious agents, and to develop predictive models that would suggest practical modes to interrupt disease spread, Fogarty led the development of a unique interagency program on the Ecology of Infectious Diseases (EID). The EID program fills a critical gap in our national effort to protect the health of the public – both in the United States and globally – against the threat of epidemic and emerging

infectious diseases. The program links microbiologists, veterinarians, physicians, ecologists, geospatial scientists, and mathematical modelers together into transdisciplinary teams to create new knowledge and new methods to predict and prevent the spread of infectious disease. In its first years of operation, the EID program has already linked experts from 23 countries and has supported publication of over 200 scientific articles on dozens of human and wildlife diseases, including schistosomiasis, Hanta virus, cholera, and severe acute respiratory syndrome (SARS).

SARS was first reported in southern China in the winter of 2002-2003, and within a few months it had spread to over two dozen countries. Within a month of its discovery, SARS was recognized as a viral respiratory illness caused by a newly identified coronavirus (CoV), yet the origin of the virus and how it was initially transmitted to humans remained a mystery. Preliminary evidence suggested that the palm civet (a raccoon-like mammal common in live animal markets in southern China) might have spread the virus to humans. However, the occurrence of related viruses in bats led some to think these animals may have been involved. A team of Fogarty-funded researchers from the U.S., China, and Australia collected and analyzed specimens from nine species of bats in their native habitats in southern China. The team studied the presence of antibodies to the SARS virus and performed genome sequencing of viral isolates from positive tissues, comparing these genome sequences to that of the SARS virus. Study results indicate that bats are the natural reservoir of the SARS virus, suggesting that palm civets played an intermediary role in human infections. These findings have major implications for development of public health

strategies to combat the spread of SARS. In FY 2007, FIC expects to expand the EID program in terms of the number of projects supported and their scope, simultaneously increasing the focus on supporting translation of research findings and predictions into action.

As we consider the daunting challenge of pandemic avian influenza, programs such as the EID can provide a critical component in our ability to predict and prevent emergence and transmission of this and other disease threats. The U.S. and its global partners will be better poised to make effective interventions to prevent the spread of avian flu through understanding of migration patterns of reservoir bird species, the interactions between humans, domestic animals and birds, and the pathogen dynamics in and among these hosts. We cannot predict the spread of this disease, in its current zoonotic form, using mathematical or statistical models if we do not support the fieldwork necessary to sample wild and domesticated birds (work done by ornithologists, veterinarians, and ecologists). The field data are useful only for post field analysis if we integrate them into predictive models. The interagency EID program is unique in its integration of these methods into interdisciplinary teams to understand the biology and predict disease emergence and transmission.

### **THE GLOBAL BURDEN OF TRAUMA AND INJURY**

According to the World Health Organization (WHO), the numbers and the global burden due to trauma and injury are on the rise: more than 1.2 million people are killed in traffic accidents annually, and up to 50 million more are injured or

disabled. If current trends continue, the number of people killed and injured on the world's roads will rise by more than 60% between 2000 and 2020. Almost 90% of deaths due to injuries take place in poorer countries -- this is true for all forms of such trauma including road accidents, war, homicides, and suicides. And, according to the Association for Safe International Road Travel, road traffic accidents are the second leading cause of death for Americans abroad.

To address this growing challenge, Fogarty, working closely with the Centers for Disease Control and Prevention, WHO, the Pan American Health Organization, and eight other NIH institutes, initiated a research training program to build the capacity of developing country investigators and institutions to conduct human trauma and injury research. The International Collaborative Trauma and Injury Research Training (ICTIRT) program involves collaborators from U.S. and developing country institutions to train the next generation in basic and applied science, the epidemiology of risk factors, acute care and survival, rehabilitation, and the long-term mental health consequences of trauma and injury, including civil strife. Benefits of this program will accrue not only to developing countries but, as low-cost and effective strategies are identified, to communities around the world. This program was initiated with awards in FY 2005 and FY 2006. We anticipate new awards in FY 2006 and FY 2007.

## **CONCLUSION**

The programs and international initiatives of the Fogarty International Center are a living testament to the vision of Congressman John E. Fogarty. As we consider the daunting global challenges of AIDS, avian influenza and chronic problems, including obesity and mental health disorders, we understand the interconnectedness of the United States and the global community. These challenges require us to move forward with efficiency and diplomacy, for the benefit of the American people and the global community.