#### DEPARTMENT OF HEALTH AND HUMAN SERVICES

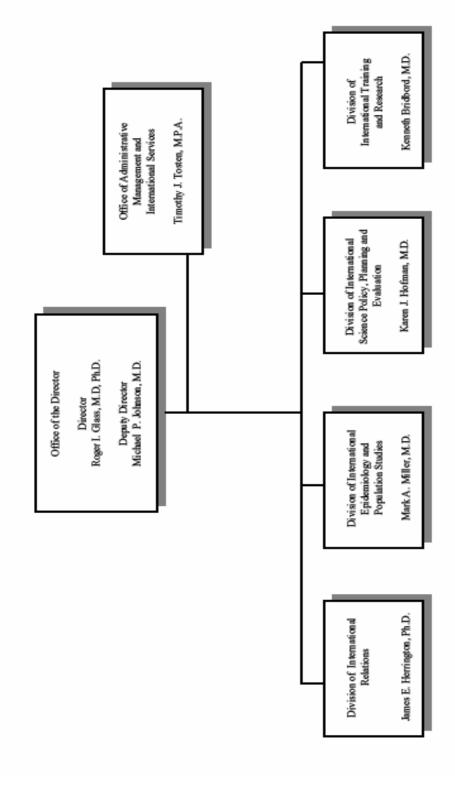
#### NATIONAL INSTITUTES OF HEALTH

#### John E. Fogarty International Center (FIC)

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# NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center



#### **NATIONAL INSTITUTES OF HEALTH**

John E. Fogarty International Center

For carrying out section 301 and Title IV of the Public Health Services Act with respect to the activities at the John E. Fogarty International Center [\$68,691,000] \$69,227,000 (Department of Health and Human Services Appropriation Act, 2009)

# National Institutes of Health John E. Fogarty International Center

#### Amounts Available for Obligation 1/

| Source of Funding  | FY 2008<br>Actual | FY 2009<br>Estimate | FY 2010<br>Estimate |
|--|-------------------|---------------------|---------------------|
| Appropriation  | \$67,741,000      | \$68,691,000        | \$69,227,000        |
| Rescission   | -1,183,000        | 0                   | 0                   |
| Supplemental   | 354,000           | 0                   | 0                   |
| Subtotal, adjusted appropriation   | 66,912,000        | 68,691,000          | 69,227,000          |
| Real transfer under Director's one-percent transfer authority (GEI)        | -74,000           | 0                   | 0                   |
| Comparative transfer under Director's one-percent transfer authority (GEI) | 74,000            | 0                   | 0                   |
| Subtotal, adjusted budget authority  | 66,912,000        | 68,691,000          | 69,227,000          |
| Unobligated balance, start of year   | 0                 | 0                   | 0                   |
| Unobligated balance, end of year   | 0                 | 0                   | 0                   |
| Subtotal, adjusted budget authority  | 66,912,000        | 68,691,000          | 69,227,000          |
| Unobligated balance lapsing  | -10,000           | 0                   | 0                   |
| Total obligations  | 66,902,000        | 68,691,000          | 69,227,000          |

<sup>1/</sup> Excludes the following amounts for reimbursable activities carried out by this account: FY 2008 - \$4,165,000 FY 2009 Estimate - \$4,285,000 FY 2010 Estimate - \$4,352,000

(Dollars in Thousands) Budget Mechanism - Total

|   |              | 2008     |              | <sup>2009</sup> | FY           | 2010     |       |          |
|---|--------------|----------|--------------|-----------------|--------------|----------|-------|----------|
| MECHANISM                                 | А            | ctual    | Es           | timate          | Est          | timate   | Cha   | ange     |
| Research Grants:                          | No.          | Amount   | No.          | Amount          | No.          | Amount   | No. A | mount    |
| Research Projects:                        |              |          |              |                 |              |          |       |          |
| Noncompeting                              | 113          | \$10,102 | 113          | \$11,738        | 104          | \$10,733 | (9)   | -\$1,005 |
| Administrative supplements                | (7)          | 383      | (0)          | 0               | (0)          | 0        | (0)   | 0        |
| Competing:                                |              |          |              |                 |              |          |       |          |
| Renewal                                   | 3            | 1,364    | 0            | 0               | 0            | 0        | 0     | 0        |
| New                                       | 40           | 2,541    | 41           | 2,710           | 48           | 3,816    | 7     | 1,106    |
| Supplements                               | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Competing                                 | 43           | 3,905    | 41           | 2,710           | 48           | 3,816    | 7     | 1,106    |
| Subtotal, RPGs                            | 156          | 14,390   | 154          | 14,448          | 152          | 14,549   | (2)   | 101      |
| SBIR/STTR                                 | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Subtotal, RPGs                            | 156          | 14,390   | 154          | 14,448          | 152          | 14,549   | (2)   | 101      |
| Research Centers:                         |              |          |              |                 |              |          |       |          |
| Specialized/comprehensive                 | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Clinical research                         | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Biotechnology                             | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Comparative medicine                      | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Research Centers in Minority Institutions | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Subtotal, Centers                         | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Other Research:                           |              |          |              |                 |              |          |       |          |
| Research careers                          | 11           | 1,302    | 11           | 1,430           | 10           | 1,200    | (1)   | -230     |
| Cancer education                          | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Cooperative clinical research             | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Biomedical research support               | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Minority biomedical research support      | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Other                                     | 172          | 34,530   | 178          | 35,683          | 181          | 35,981   | 3     | 298      |
| Subtotal, Other Research                  | 183          | 35,832   | 189          | 37,113          | 191          | 37,181   | 2     | 68       |
| Total Research Grants                     | 339          | 50,222   | 343          | 51,561          | 343          | 51,730   | 0     | 169      |
|   |              |          |              |                 |              |          |       |          |
| Research Training:                        | <u>FTTPs</u> |          | <u>FTTPs</u> |                 | <u>FTTPs</u> |          |       |          |
| Individual awards                         | 0            | 0        | 0            | 0               | 0            | 0        | 0     | 0        |
| Institutional awards                      | 2            | 125      | 2            | 125             | 2            | 125      | 0     | 0        |
| Total, Training                           | 2            | 125      | 2            | 125             | 2            | 125      | 0     | 0        |
| Research & development contracts          | 0            | 3,592    | 0            | 3,734           | 0            | 3,869    | 0     | 135      |
| (SBIR/STTR)                               | (0)          | (0)      | (0)          | (0)             | (0)          | (0)      | (0)   | (0)      |
| (==::,)                                   | FTEs         | (-)      | FTEs         | (-)             | FTEs         | (-)      | FTEs  | (-)      |
| Intramural research                       | 0            | 0        | 0            | 0               | 0            | 0        |       | ^        |
|   | 55           | 12,973   | 54           | -               | 55           | -        | 0     | 0<br>232 |
| Research management and support           | 55           | •        | 54           | 13,271          | 55           | 13,503   | 1     |          |
| Construction                              |              | 0        |              | 0               |              | 0        |       | 0        |
| Buildings and Facilities                  |              | 0 010    | A            | 0               |              | 0        |       | 520      |
| Total, FIC                                | 55           | 66,912   | 54           | 68,691          | 55           | 69,227   | 1     | 536      |

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

# NATIONAL INSTITUTES OF HEALTH John E. Fogarty International Center BA by Program (Dollars in thousands)

|                                      | FY 2006 | 90     | FY 2007 | 200    | FΥ   | FY 2008     | FΥ   | FY 2008 F  | FY 2009 |          | FY   | FY 2010  |             |       |
|--------------------------------------|---------|--------|---------|--------|------|-------------|------|------------|---------|----------|------|----------|-------------|-------|
|                                      | Actual  | a      | Actual  | lal    | Ā    | Actual      | Com  | Comparable | Esti    | Estimate | Esti | Estimate | Change      | nge   |
| Extramural Research                  | FTES    | Amount | FTEs /  | Amount | FTES | FTEs Amount | FTEs | Amount     | FTEs    | Amount   | FTES | Amount   | FTEs Amount | mount |
| <u>Detail:</u>                       |         |        |         |        |      |             |      |            |         |          |      |          |             |       |
| Research Capacity Streng hening      |         |        |         |        |      |             |      |            |         |          |      |          |             |       |
| Insitu ional Capacity Building       |         | 35,109 |         | 32,814 |      | 35,225      |      | 35,299     |         | 35,607   |      | 35,851   |             | 244   |
| Development of Human Resources       |         | 3,185  |         | 4,285  |      | 3,177       |      | 3,177      |         | 4,792    |      | 4,806    |             | 14    |
| for Global Health Research           |         |        |         |        |      |             |      |            |         |          |      |          |             |       |
| International Collabora ive Research |         | 16,341 |         | 16,592 |      | 15,463      |      | 15,463     |         | 15,021   |      | 15,067   |             | 46    |
|                                      |         |        |         |        |      |             |      |            |         |          |      |          |             |       |
| Subtotal, Extramural                 |         | 54,635 |         | 53,691 |      | 53,865      |      | 53,939     |         | 55,420   |      | 55,724   |             | 304   |
| Intramural research                  | 0       | 0      | 0       | 0      | 0    | 0           | 0    | 0          | 0       | 0        | 0    | 0        | 0           | 0     |
| Res. management & support            | 52      | 11,697 | 54      | 12,657 | 55   | 12,973      | 22   | 12,973     | 54      | 13,271   | 22   | 13,503   | 1           | 232   |
| TOTAL                                | 52      | 66,332 | 54      | 66,348 | 55   | 66,838      | 22   | 66,912     | 54      | 68,691   | 55   | 69,227   | 1           | 536   |
|                                      |         |        |         |        |      |             |      |            |         |          |      |          |             |       |

Includes FTEs which are reimbursed from he NIH Roadmap for Medical Research

#### Major Changes in the Fiscal Year 2010 Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2010 budget request for FIC, which is \$0.536 million more than the FY 2009 Estimate, for a total of \$69.227 million.

Major Change (+\$.101 million; total \$14.549 million): FIC will support a total of 152 Research Project Grant (RPG) awards in FY 2010. Noncompeting RPGs will decrease by 9 awards and decrease by \$1.005 million. Competing RPGs will increase by 7 awards and increase by \$1.106 million. FIC will continue to support new investigators and to maintain an adequate number of competing RPGs.

Research Capacity Strengthening: Institutional Capacity Building (+\$.244 million; total \$35.851 million): FIC will increase slightly the funding level for the Bioethics program, as well as the International Clinical, Operational and Health Services Research and Training Award for non-communicable diseases and disorders, malaria, AIDS and TB. FIC is also continuing the Millennium Promise Awards: Non-Communicable Chronic Diseases Research Training Program. This program will focus on the fields related to cancer, cerebrovascular disease including stroke, lung disease including chronic obstructive pulmonary disease (COPD), environmental factors including indoor air pollution, and obesity and lifestyle factors related to these conditions.

Research Capacity Strengthening: Development of Human Resources for Global Health Research (+\$.014 million; total \$4.806 million): FIC will increase slightly, building on the progress made with the FIC International Clinical Research Scholars Program, as well as the Research Career awards.

International Collaborative Research (+\$.046 million; total \$15.067 million): FIC will continue emphasis on the Brain Disorders in the Developing World: Research Across the Lifespan program, and slightly increase other areas of competing research programs.

#### NATIONAL INSTITUTES OF HEALTH John E. Fogarty International Center Summary of Changes

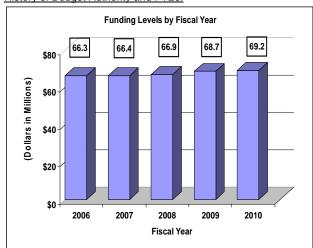
| FY 2009 estimate                            |      |             |        | \$68,691,000 |
|---|------|-------------|--------|--------------|
| FY 2010 estimated budget authority          |      |             |        | 69,227,000   |
| Net change                                  |      |             |        | 536,000      |
|   | 200  | 09 Current  |        |              |
|   | Esti | imate Base  | Change | e from Base  |
|   |      | Budget      |        | Budget       |
| CHANGES                                     | FTEs | Authority   | FTEs   | Authority    |
| A. Built-in:                                |      |             |        |              |
| Intramural research:                        |      |             |        |              |
| a. Annualization of January                 |      |             |        |              |
| 2009 pay increase                           |      | \$0         |        | \$0          |
| b. January FY 2010 pay increase             |      | 0           |        | 0            |
| c. Payment for centrally furnished services |      | 0           |        | 0            |
| d. Increased cost of laboratory supplies,   |      |             |        | 0            |
| materials, and other expenses               |      | 0           | •      | 0            |
| Subtotal                                    |      |             |        | 0            |
| Research management and support:            |      |             |        |              |
| a. Annualization of January                 |      |             |        |              |
| 2009 pay increase                           |      | \$7,481,000 | )      | \$89,000     |
| b. January FY 2010 pay increase             |      | 7,481,000   | )      | 112,000      |
| c. Payment for centrally furnished services |      | 895,000     | )      | 18,000       |
| d. Increased cost of laboratory supplies,   |      |             |        |              |
| materials, and other expenses               |      | 4,895,000   |        | 82,000       |
| Subtotal                                    |      |             |        | 301,000      |
| Subtotal, Built-in                          |      |             |        | 301,000      |

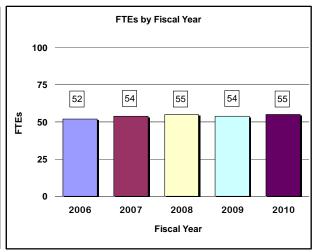
#### **Summary of Changes--continued**

|                                       |             | 09 Current   |             |               |
|---------------------------------------|-------------|--------------|-------------|---------------|
|                                       |             | imate Base   |             | e from Base   |
| CHANGES                               | No.         | Amount       | No.         | Amount        |
| B. Program:                           |             |              |             |               |
| Research project grants:              |             |              |             |               |
| a. Noncompeting                       | 113         | \$11,738,000 | (9)         | (\$1,005,000) |
| b. Competing                          | 41          | 2,710,000    | 7           | 1,106,000     |
| c. SBIR/STTR                          | 0           | 0            | 0           | 0             |
| Total                                 | 154         | 14,448,000   | (2)         | 101,000       |
| 2. Research centers                   | 0           | 0            | 0           | 0             |
| 3. Other research                     | 189         | 37,113,000   | 2           | 68,000        |
| 4. Research training                  | 2           | 125,000      | 0           | 0             |
| 5. Research and development contracts | 0           | 3,734,000    | 0           | 135,000       |
| Subtotal, extramural                  |             |              |             | 304,000       |
|                                       | <u>FTEs</u> |              | <u>FTEs</u> |               |
| 6. Intramural research                | 0           | 0            | 0           | 0             |
| 7. Research management and support    | 54          | 13,271,000   | 1           | (69,000)      |
| 8. Construction                       |             | 0            |             | 0             |
| 9. Buildings and Facilities           |             | 0            |             | 0             |
| Subtotal, program                     |             | 68,691,000   |             | 235,000       |
| Total changes                         | 54          |              | 1           | 536,000       |

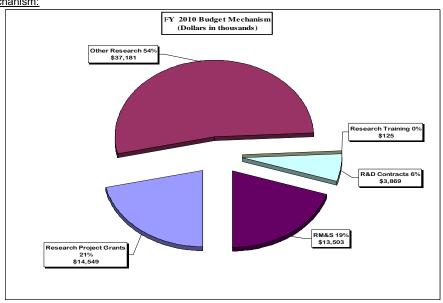
#### Fiscal Year 2010 Budget Graphs

History of Budget Authority and FTEs:

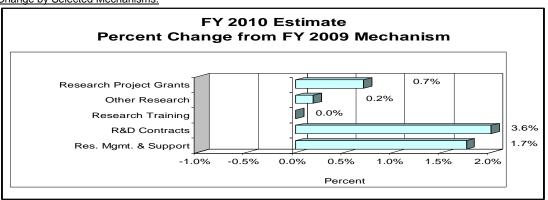




**Distribution by Mechanism:** 



Change by Selected Mechanisms:



# Justification John E. Fogarty International Center for Advanced Study in the Health Sciences

Authorizing Legislation: Section 301 and title IV of the Public Health Service Act, as amended.

|     |                      |                | FY 2009      | FY 2010       | FY 2010 +/-    |
|-----|----------------------|----------------|--------------|---------------|----------------|
|     | FY 2008              | FY 2009        | Recovery     | President's   | 2009           |
|     | <b>Appropriation</b> | <u>Omnibus</u> | <u>Act</u>   | <u>Budget</u> | <u>Omnibus</u> |
| BA  | \$66,912,000         | \$68,691,000   | \$17,370,000 | \$69,227,000  | \$536,000      |
| FTE | 55                   | 54             |              | 55            | 1              |

This document provides justification for the Fiscal Year (FY) 2010 activities of the Fogarty International Center (FIC), including HIV/AIDS activities. Details of the FY 2010 HIV/AIDS activities are in the "Office of AIDS Research (OAR)" Section of the Overview. Details on the Common Fund are located in the Overview, Volume One. Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

In FY 2009, a total of \$17,370,000 American Recovery and Reinvestment Act (ARRA) funds were transferred from the Office of the Director. These funds will be used to support scientific research opportunities that help support the goals of the ARRA. The ARRA allows NIH to execute these funds via any NIH funding mechanism. Funds are available until September 30, 2010. These funds are not included in the FY 2009 Omnibus amounts reflected in this document.

#### **DIRECTOR'S OVERVIEW**

In today's interconnected world, solving global problems requires greater international collaboration than ever before, and challenges in global health are no exception. To effectively confront complex health issues that transcend national boundaries, scientific collaborations must be developed and strengthened. Research advances will more likely occur when investigators can study diseases on-site, whereby foreign scientists partner with U.S. scientists, building on each other's strengths and experiences to develop health interventions that are responsive to local and international needs and priorities. This model requires a critical mass of trained, in-country scientists and institutions that are uniquely positioned to address local study populations and to ensure sustainable collaborations with U.S. and foreign investigators.

In 2008, the FIC, named for a visionary Rhode Island Congressman who understood the importance of U.S. investment in international health research, celebrated its 40th anniversary. Since FIC's inception, it has been the focal point for global health at the National Institutes of Health (NIH). FIC supports and facilitates global health research conducted by U.S. and foreign investigators, builds collaborations between U.S. and health research institutions worldwide, and trains the next generation of scientists to address global health needs. FIC-supported research and research training programs encompass a wide range of diseases and needs, including HIV/AIDS, malaria, TB and other infectious diseases; non-communicable diseases, such as brain disorders, cancer, autism, and tobacco-related illness; and critical areas that foster a research environment, including research ethics and informatics for health research. Global health needs are constantly evolving, and the research agenda must adapt to this changing landscape. To take stock of current challenges and plan for the future, FIC has developed a Strategic Plan that will guide priorities through FY 2013.

Address the growing burden of non-communicable disease. In contrast to sub-Saharan Africa, rapidly developing countries like India, Brazil, Mexico and Bangladesh have seen life expectancies grow for the past 40 years (Human Development Report 2005. United Nations Development Programme. <a href="http://hdr.undp.org/en/media/HDR05">http://hdr.undp.org/en/media/HDR05</a> complete.pdf). Population forecasts now predict that by 2030, one out of eight people will be 65 or over — 1 billion adults (National Institute on Aging, Why Population Aging Matters: A Global Perspective. http://www.nia.nih.gov/NR/rdonlyres/9E91407E-CFE8-4903-9875-D5AA75BD1D50/0/WPAM.pdf). Fatty diets, less physical activity, and tobacco use are all on the rise in developing countries as a result of industrialization, urbanization and global marketing of goods and products. With increasing longevity, convergence of risk factors and diseases blur the distinction between developing and developed countries, and calls for a common research agenda. International research collaborations to study these diseases in highly endemic areas accelerate scientific advances on how to prevent and treat them. Therefore, FIC will increase investments in non-communicable disease research and training. In FY 2008, as a key initial step, FIC initiated the Millennium Promise Awards in the Non-Communicable Disease Program, designed to support research training in low- and middle-income countries in fields related to cancer, stroke, lung diseases, obesity and environmental factors. The continuing burden of infectious disease in poor populations, as well as the rapid rate at which microbial agents can evolve, adapt, and develop resistance to antibiotics, demand that FIC continue to invest in infectious disease research and training, in HIV, TB, malaria and other communicable diseases, while adapting to meet the changing nature of infectious disease threats.

Advance research and build capacity for implementation science. Unprecedented resources are being invested in the development of new health technologies; many interventions have been proven safe and effective, although many have not been implemented on a wide scale due to logistical, cultural, financial, and other barriers. The public's health will not improve if these interventions fail to be accepted or have limited compliance in the clinic or community. Therefore, there is an urgent need to ensure that trained researchers can bridge the gap between what we know and what we do, and

identify the most effective ways to translate research findings into practice. Implementation research identifies barriers to the use of proven interventions and develops strategies to overcome them. FIC will advance this area of science, particularly through training foreign scientists in developing countries to conduct this type of research.

Some programs have already made inroads in this field, such as the FIC International Clinical, Operational, and Health Services Research Training Program, which is developing a network of researchers who are applying research knowledge and new technologies in clinic and community settings. For example, in the immediate aftermath of the earthquake in Sichuan Province in China, FIC-trained scientists helped lead the emergency response to the disaster; the team helped organize mental health services based on state-of-the-art knowledge, targeting the injured children and displaced families. FIC trainees are also developing strategies to prevent transmission of HIV in India and Sub-Saharan Africa and are examining how to best use HIV anti-retroviral regimens that yields the most effective treatment outcomes, limits drug resistance, and ultimately is sustainable at lowest cost.

Investing in future leaders in global health research. As U.S. investments in global health increase, sustainability of the scientific workforce must be a priority to ensure long-term gains in public health and continued development and improvement of health interventions. As research training of foreign scientists remains a very high priority, FIC will continue to support a wide array of research training programs. To capitalize on the soaring current interest in global health at U.S. colleges, in FY 2009 FIC will broaden its commitment to provide overseas research experiences for young U.S. scientists by expanding its International Clinical Research Scholars program. Several NIH Institutes have joined the program, and eligibility will extend to include medical residents and fellows, in addition to health sciences students.

Congressman Fogarty was prescient in arguing the needs and rewards of global health research a half century ago. FIC is extending his vision, given that international trade, travel and the Internet have created a truly integrated and interdependent world. FIC has set an ambitious course for the years ahead, addressing emerging areas of science and shifting disease burdens, and helping to build the global health research workforce in the U.S. and around the world. It is dedicated to moving us closer to the ideal of global health, one that reflects the aspiration of every human being on the planet to live a long and healthy life.

#### **Overall Budget Policy**

FIC distributes its resources among many programs and mechanisms and is committed to funding the largest number of meritorious projects possible, while allowing the flexibility needed to support selected program priorities and to respond to emerging scientific opportunities. Funding decisions are based on the number of high-quality applications, the overall number of applications, and the availability of funds. FIC funds a large number of initiatives with collaborating funding partners that include other NIH

Institutes/Centers, other government agencies, and non-government organizations. Funding decisions take into account program relevance and overall portfolio consideration, and all future years will be adjusted accordingly.

#### **FY 2010 JUSTIFICATION BY ACTIVITY DETAIL**

#### **Program Descriptions and Accomplishments**

#### **Research Capacity Strengthening**

Institutional Capacity Building -- Addressing the Silent Epidemic of Non-Communicable Diseases. Many countries, particularly those with developing economies, are now experiencing social and demographic transitions that are altering patterns of disease incidence and prevalence. With the exception of HIV/AIDS, the burden of disease in the developing world is expected to shift from infectious diseases to chronic non-communicable diseases. In some of the world's largest countries. cardiovascular diseases, mental illness, traumatic injury and other chronic conditions are leading causes of morbidity and mortality. These developments underscore the need for and scientific value of conducting chronic disease research and training in global populations. In response, FIC will support Millennium Promise Awards in Non-Communicable Disease Program, designed to support research training in low- and middle-income countries in fields related to cancer, stroke, lung diseases, obesity and environmental factors including indoor air pollution. This program will accelerate scientific efforts to understand how biomedical knowledge can be translated in the context of diverse and rapidly changing environments, both at home and abroad. For example, many U.S. citizens are only a few generations removed from ancestral populations in Africa, Asia, and the Americas. Comparative studies offer important clues about genetic predisposition to chronic conditions such as cancer and obesity.

Budget Policy: The 2010 budget estimate for Institutional Capacity Building is \$35.851 million, an increase of \$.244 million or .680 percent over the FY 2009 estimate. FIC's new Strategic Plan 2008-2012 provides the pathway toward developing sustainable global health research and training programs where they are needed most. The plan's first goal is to mobilize the scientific community to address the growing epidemic of chronic, non-communicable diseases related to increased longevity and changing lifestyles in the developing world. To accomplish this, FIC will invest in this area, while continuing to invest in the critical infectious diseases agenda. FIC's Millennium Promise Awards in Non-Communicable Disease Program plans to fund \$1.5 million a year to support non-communicable diseases research training, with seven awards expected annually. In addition, FIC is working with other NIH components and private partners to develop further chronic disease initiatives.

#### Portrait of a Program: Framework Program for Global Health

FY 2009 Level: \$2.070 million FY 2010 Level: \$2.085 million Change: \$ .015 million

U.S. academic institutions are leading the way in addressing global health challenges. Nearly every major medical school has established a division, department or center for international health research in response to both faculty and student demands and, more importantly, because U.S. scientists have recognized that many pressing research questions now require global engagement. As a key component the Frameworks supports the development of multidisciplinary global health programs on campuses in the U.S. and low- and middle-income countries which have substantial active research grants in global health. Sponsored by the FIC in partnership with the National Cancer Institute, National Institute of Neurological Diseases and Stroke, National Institute of Biomedical Imaging and Bioengineering, National Institute on Deafness and Other Communication Disorders, and the Eunice Kennedy Shriver National Institute of Child Health and Development, the program develops new curricula and degree programs that cut across departments and schools to create a pipeline for a new generation of researchers in global health. It also encourages new research collaborations by exposing both students and faculty to research experiences and networks carrying out global health research. The program, in its fourth year, already has been transformative on many campuses. Within institutions supported, schools representing over 17 different disciplines participate in the program including medicine, public health, arts and sciences, law, public policy, engineering, environmental sciences, journal-ism, business and management, and others. New M.S. and Ph.D. programs have been created; faculty have become aware for the first time of colleagues in other departments who also work in global health; students have oversubscribed to many of the new course offerings, and a large number of students/faculty have had the opportunity to participate in short research experiences on a variety of projects throughout the globe. Some of the programs have made innovative use of distance learning to create virtual international classrooms. The new administrative entities created through the Frame-works to coordinate global health activities have, in many cases, become institutionalized as new Centers for Global Health on many campuses.

Development of Human Resources for Global Health Research. Given that biomedical research is an inherently global enterprise, a well-trained cadre of American health scientists with global experience is critical to ensure that the U.S. remains an internationally competitive partner in discovery and innovation in the life sciences. Therefore, FIC is firmly committed to supporting young scientists in their desire to explore global health research, and by so doing, helping to nurture the next generation of U.S. leaders in the field. Through specific programs, FIC support ensures that U.S. junior scientists and clinicians have the opportunity to engage in international research early in their careers, and provides them with the skill sets, cultural sensitivities, and scientific connections to foreign researchers necessary to make medical discoveries that can benefit everyone.

FIC career development awardees have gone on to receive planning or research grants from other NIH Institutes and Centers. These small FIC awards have proven very successful in preparing awardees to pursue other and much larger NIH grants. For example, one recent FIC awardee received a grant from the National Institute of Neurological Disorders and Stroke to examine the epidemiology and etiology of Acute Flaccid Paralysis in Guatemala based on the unusually high incidence observed during her study of acute infectious neurological diseases. Although the symptoms are similar

to those of Guillain-Barre syndrome, the rapid onset, clinical progression and severity of outcome of this type of paralysis are unique, and unusual underlying infections are suspected.

<u>Budget Policy</u>: The 2010 budget estimate for Development of Human Resources for Global Health Research is \$4.806 million, an increase of \$.014 million or .291 percent over the FY 2009 estimate. FIC's impact has historically been most significant in developing the pipeline of U.S. and foreign research talent, and is an ongoing need. FIC intends to expand the number of overseas research experiences available for young U.S. scientists in order to encourage them to adopt careers in global health. FIC will also continue its research training partnerships between U.S. and foreign institutions and strive to enhance research opportunities for foreign scientists when they return home.

#### Portrait of a Program: Investing in Future U.S. Global Health Scientists

FY 2009 Level: \$2,754 million FY 2010 Level: \$2,766 million Change: \$ .012 million

The most important resources in global health, indisputably, are people. Maintaining a cadre of talented individuals in global health science is essential. Throughout its history, the U.S. has maintained leadership in science through its commitment to academic exchange and the global sharing of skills and knowledge. To advance this important mandate, the Fogarty International Center established the Fogarty International Clinical Research Scholars Program for U.S. and developing country advanced degree students in the health sciences. This program, now in its fifth year, offers one year of mentored clinical research training at a site in the developing world. It expands upon international opportunities for new U.S. investigators seeking hands-on experience working in low-income and transitional countries, and provides support for a foreign graduate student to work alongside the U.S. trainee during the clinical research year. Such experiences during a formative period encourage these young researchers to pursue careers in global health-related clinical research.

A new expansion of the program enables either post-residency or postgraduate fellowships for clinical research activities at the foreign sites. The program has a broad reach -- training sites include areas in Sub-Saharan Africa, Latin America, Russia, and China. Sites selected share the capacity to provide an outstanding clinical research training experience to one or more Fogarty International Clinical Research Scholars or Fellows. The Association of American Medical Colleges, in collaboration with the Association of Schools of Public Health and Vanderbilt University, provides program support for the solicitation and review of applications and coordination of the program.

#### **International Collaborative Research**

**Bridging the Implementation Gap.** Despite rapid advances in biomedicine and increased commitments for global health, vast numbers of lives continue to be lost because health interventions are not delivered effectively in low- and middle-income countries and other resource poor settings. Children are the most vulnerable victims to this avoidable gap between knowledge and implementation. For example, the mortality

of an estimated sixty percent of children under the age of five would be prevented if known interventions were effectively delivered. Among adults, the rising global burden of heart disease, type II diabetes and other conditions could be averted by supporting research and training to close the implementation gap. In response to this critical need, FIC will expand support research training in implementation science within established programs. These include the Clinical Research Scholars Training Program, Framework Program and the International Clinical, Operational and Health Services Research Training Program. These efforts, collectively, will enable investigators in lowand middle-income countries and the United States to identify factors that affect delivery and capture qualitative aspects of successful implementation. For example, there is pressing need to develop capacities to adapt interventions to local conditions and integrate them into existing services. Research training also is required to develop and deploy quality assurance strategies as well as scale-up successful interventions. Programs involving drug administration require research on approaches to improving drug supplies, including cost-recovery schemes and interventions to improve prescribing and dispensing. Local capacity will be strengthened at all levels of implementation science, with attention given to such disciplinary fields as medical and social epidemiology, demography, statistics, health economics and management sciences.

<u>Budget Policy</u>: The 2010 budget estimate for International Collaborative Research is \$15.067 million, an increase of \$.046 million or .305 percent over the FY 2009 estimate. This area encourages implementation science to address the "know-do" gap, and would expand research training opportunities for U.S. and foreign scientists, foster a sustainable research environment in low- and middle-income countries, and build strategic partnerships to further global health. FIC plans to expand its International Clinical, Operational and Health Services Research Training Award program for AIDS and TB and has reinforced the initiative's support for implementation research.

Portrait of a Program: Non-Communicable Diseases

FY 2009 Level: \$1.099 million FY 2010 Level: \$1.240 million Change: \$ .141 million

Chronic non-communicable diseases are steadily increasing around the world and in low- and middle-income countries, which will soon account for more than 50% of the expenditures for health care and more than 50% of the disability adjusted life years (DALYs). The bulk of factors that are responsible for onset of the chronic disease are so diverse that it is essential that those trained in these areas of research have a broad understanding or work across disciplines that might include nutrition, business and the corporate sector, behavioral health, health law, economics, environmental health and urban planning. Most of the research training and research on chronic diseases has been conducted in high-income countries and has seldom been multidisciplinary. The Fogarty International Center has developed a novel program with the intent to strengthen research capacity by developing a pipeline of scientists in low-and middle-income countries who will conduct transdisciplinary and implementation research in this field.

This research training program will focus on fields related to cancer, cerebrovascular disease including stroke, lung disease including chronic obstructive pulmonary disease and environmental factors including indoor air pollution, and obesity and lifestyle factors related to these conditions, as well as genetics of non-communicable diseases. The overall goal of this program is to train researchers who can identify factors that influence chronic disease risks, develop evidence regarding the impact of chronic non-communicable diseases on families and communities and then translate that research into public health policy and programs of care.

#### Research Management and Support (RMS)

FIC's RMS provides administrative, budgetary, logistical, and scientific support to review, award, and monitor research grants, training awards, and contracts. It encompasses strategic planning, coordination, and evaluation of the Center's programs; regulatory compliance; international coordination; international science policy; and liaisons with other Federal agencies, Congress, and the public. Specific functions include an in-house epidemiology section performing mathematical modeling of infectious diseases; international program officers developing partnerships between U.S. scientists and institutions and their counterparts abroad to advance scientific research and training; identification of collaborative opportunities with foreign science funding agencies; and support for all NIH international travel by issuing and tracking official government passports and international visas, review and initial approval of HHS Notice of Foreign Travel requests, and the creation and coordination of official travel cables to U.S. Embassies.

<u>Budget Policy</u>: The 2010 budget estimate for Research Management and Support is \$13.503 million, an increase of \$232 thousand or 1.718 percent over the FY 2009 estimate. This increase in RMS reflects overall NIH policy for FY 2010 and will help to offset increases due to payroll costs, centrally funded assessments for NIH services, as well as for supplies and materials.

#### **Budget Authority by Object**

|   | <del>, , , , , , , , , , , , , , , , , , , </del> |             |             | T       |
|---|---|-------------|-------------|---------|
|   |   |             |             |         |
|   | FY 2009   | FY 2010     | Increase or | Percent |
|   | Estimate  | Estimate    | Decrease    | Change  |
| Total compensable workyears:                      |   |             |             |         |
| Full-time employment                              | 54  | 55          | 1           | 1.9     |
| Full-time equivalent of overtime and holiday hour | 0   | 0           | 0           | 0.0     |
|   | 00  | Φ0          |             |         |
| Average ES salary                                 | \$0   | \$0         | \$0         | 0.0     |
| Average GM/GS grade                               | 11.6  | 11.6        | 0.0         | 0.0     |
| Average GM/GS salary                              | \$93,300  | \$95,819    | \$2,519     | 2.7     |
| Average salary, grade established by act of       | φοσ,σσσ   | Ψ00,010     | Ψ2,010      |         |
| July 1, 1944 (42 U.S.C. 207)                      | \$108,265   | \$111,188   | \$2,923     | 2.7     |
| Average salary of ungraded positions              | 164,534   | 168,976     | 4,442       | 2.7     |
| Avorage salary or angliaded positions             | 104,004   | 100,070     | 7,772       | 2.,     |
|   | FY 2009   | FY 2010     | Increase or | Percent |
| OBJECT CLASSES                                    | Estimate  | Estimate    | Decrease    | Change  |
| Personnel Compensation:                           | Lournato  | Lournato    | Decrease    | Onlange |
| 11.1 Full-time permanent                          | \$4,092,000                                       | \$4,278,000 | \$186,000   | 4.5     |
| 11.3 Other than full-time permanent               | 1,376,000   | 1,439,000   | 63,000      | 4.6     |
| 11.5 Other personnel compensation                 | 148,000   | 155,000     | 7,000       | 4.7     |
| 11.7 Military personnel                           | 233,000   | 244,000     | 11,000      | 4.7     |
| 11.8 Special personnel services payments          | 49,000  | 51,000      | 2,000       | 4.1     |
| Total, Personnel Compensation                     | 5,898,000   | 6,167,000   | 269,000     | 4.6     |
| 12.0 Personnel benefits                           | 1,441,000   | 1,506,000   | 65,000      | 4.5     |
| 12.2 Military personnel benefits                  | 142,000   | 148,000     | 6,000       | 4.2     |
| 13.0 Benefits for former personnel                | 0   | 0           | 0           | 0.0     |
| Subtotal, Pay Costs                               | 7,481,000   | 7,821,000   | 340,000     | 4.5     |
| 21.0 Travel and transportation of persons         | 256,000   | 257,000     | 1,000       | 0.4     |
| 22.0 Transportation of things                     | 15,000  | 15,000      | 0           | 0.0     |
| 23.1 Rental payments to GSA                       | 0   | 0           | 0           | 0.0     |
| 23.2 Rental payments to others                    | 2,000   | 2,000       | 0           | 0.0     |
| 23.3 Communications, utilities and                |   |             |             |         |
| miscellaneous charges                             | 105,000   | 106,000     | 1,000       | 1.0     |
| 24.0 Printing and reproduction                    | 62,000  | 62,000      | 0           | 0.0     |
| 25.1 Consulting services                          | 261,000   | 262,000     | 1,000       | 0.4     |
| 25.2 Other services                               | 1,127,000   | 1,132,000   | 5,000       | 0.4     |
| 25.3 Purchase of goods and services from          |   |             |             |         |
| government accounts                               | 6,656,000   | 6,671,000   | 15,000      | 0.2     |
| 25.4 Operation and maintenance of facilities      | 147,000   | 148,000     | 1,000       | 0.7     |
| 25.5 Research and development contracts           | 550,000   | 552,000     | 2,000       | 0.4     |
| 25.6 Medical care                                 | 0   | 0           | 0           | 0.0     |
| 25.7 Operation and maintenance of equipment       | 18,000  | 18,000      | 0           | 0.0     |
| 25.8 Subsistence and support of persons           | 0   | 0           | 0           | 0.0     |
| 25.0 Subtotal, Other Contractual Services         | 8,759,000   | 8,783,000   | 24,000      | 0.3     |
| 26.0 Supplies and materials                       | 102,000   | 102,000     | 0           | 0.0     |
| 31.0 Equipment                                    | 223,000   | 224,000     | 1,000       | 0.4     |
| 32.0 Land and structures                          | 0   | 0           | 0           | 0.0     |
| 33.0 Investments and loans                        | 0   | 0           | 0           | 0.0     |
| 41.0 Grants, subsidies and contributions          | 51,686,000  | 51,855,000  | 169,000     | 0.3     |
| 42.0 Insurance claims and indemnities             | 0   | 0           | 0           | 0.0     |
| 43.0 Interest and dividends                       | 0   | 0           | 0           | 0.0     |
| 44.0 Refunds                                      | 0   | 0           | 0           | 0.0     |
| Subtotal, Non-Pay Costs                           | 61,210,000  | 61,406,000  | 196,000     | 0.3     |
| Total Budget Authority by Object                  | 68,691,000  | 69,227,000  | 536,000     | 0.8     |

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

#### **Salaries and Expenses**

| OD IECT OF VECES                               | FY 2009<br>Estimate | FY 2010     | Increase or | Percent |
|--|---------------------|-------------|-------------|---------|
| OBJECT CLASSES                                 | Estimate            | Estimate    | Decrease    | Change  |
| Personnel Compensation:                        |                     |             |             |         |
| Full-time permanent (11.1)                     | \$4,092,000         | \$4,278,000 | \$186,000   | 4.5     |
| Other than full-time permanent (11.3)          | 1,376,000           | 1,439,000   | 63,000      | 4.6     |
| Other personnel compensation (11.5)            | 148,000             | 155,000     | 7,000       | 4.7     |
| Military personnel (11.7)                      | 233,000             | 244,000     | 11,000      | 4.7     |
| Special personnel services payments (11.8)     | 49,000              | 51,000      | 2,000       | 4.1     |
| Total Personnel Compensation (11.9)            | 5,898,000           | 6,167,000   | 269,000     | 4.6     |
| Civilian personnel benefits (12.1)             | 1,441,000           | 1,506,000   | 65,000      | 4.5     |
| Military personnel benefits (12.2)             | 142,000             | 148,000     | 6,000       | 4.2     |
| Benefits to former personnel (13.0)            | 0                   | 0           | 0           | 0.0     |
| Subtotal, Pay Costs                            | 7,481,000           | 7,821,000   | 340,000     | 4.5     |
| Travel (21.0)                                  | 256,000             | 257,000     | 1,000       | 0.4     |
| Transportation of things (22.0)                | 15,000              | 15,000      | 0           | 0.0     |
| Rental payments to others (23.2)               | 2,000               | 2,000       | 0           | 0.0     |
| Communications, utilities and                  |                     |             |             |         |
| miscellaneous charges (23.3)                   | 105,000             | 106,000     | 1,000       | 1.0     |
| Printing and reproduction (24.0)               | 62,000              | 62,000      | 0           | 0.0     |
| Other Contractual Services:                    |                     |             |             |         |
| Advisory and assistance services (25.1)        | 261,000             | 262,000     | 1,000       | 0.4     |
| Other services (25.2)                          | 1,127,000           | 1,132,000   | 5,000       | 0.4     |
| Purchases from government accounts (25.3)      | 3,472,000           | 3,354,000   | (118,000)   |         |
| Operation and maintenance of facilities (25.4) | 147,000             | 148,000     | 1,000       | 0.7     |
| Operation and maintenance of equipment (25.    | 18,000              | 18,000      | 0           | 0.0     |
| Subsistence and support of persons (25.8)      | 0                   | 0           | 0           | 0.0     |
| Subtotal Other Contractual Services            | 5,025,000           | 4,914,000   | (111,000)   | -2.2    |
| Supplies and materials (26.0)                  | 102,000             | 102,000     | 0           | 0.0     |
| Subtotal, Non-Pay Costs                        | 5,567,000           | 5,458,000   | (109,000)   | -2.0    |
| Total, Administrative Costs                    | 13,048,000          | 13,279,000  | 231,000     | 1.8     |

NATIONAL INSTITUTES OF HEALTH John E. Fogarty International Center

#### \$69,227,000 69,227,000 FY 2010 Estimate 2010 Amount Indefinite Indefinite Authorized 68,691,000 \$68,691,000 FY 2009 Estimate 2009 Amount Indefinite Indefinite Indefinite Authorized **Authorizing Legislation** U.S. Code Citation 42§287b 42§242| 42§241 Other Citation Section 482 Section 307 Section 301 PHS Act/ John E. Fogarty International Research and Investigation International Cooperation Total, Budget Authority Center

**Appropriations History** 

| Fiscal       | Budget Estimate      | House      | Senate     |                  |
|--------------|----------------------|------------|------------|------------------|
| Year         | to Congress          | Allowance  | Allowance  | Appropriation 1/ |
| 2001         | 32,532,000 <u>2/</u> | 50,299,000 | 61,260,000 | 50,514,000       |
| Rescission   |                      |            |            | (21,000)         |
| 2002         | 56,449,000           | 56,021,000 | 57,874,000 | 56,940,000       |
| Rescission   |                      |            |            | (81,000)         |
| 2003         | 63,088,000           | 63,088,000 | 60,880,000 | 63,880,000       |
| Rescission   |                      |            |            | (415,000)        |
| 2004         | 64,266,000           | 64,266,000 | 65,900,000 | 65,800,000       |
| Rescission   |                      |            |            | (418,000)        |
| 2005         | 67,182,000           | 67,182,000 | 67,600,000 | 67,182,000       |
| Rescission   |                      |            |            | (550,000)        |
| 2006         | 67,048,000           | 67,048,000 | 68,745,000 | 67,048,000       |
| Rescission   |                      |            |            | (670,000)        |
| 2007         | 66,681,000           | 66,681,000 | 66,832,000 | 66,378,000       |
| Rescission   |                      |            |            | 0                |
| 2008         | 66,594,000           | 67,599,000 | 68,000,000 | 67,741,000       |
| Rescission   |                      |            |            | (1,183,000)      |
| Supplemental |                      |            |            | 354,000          |
| 2009         | 66,623,000           | 68,905,000 | 68,476,000 | 68,691,000       |
| Rescission   |                      |            |            | 0                |
| 2010         | 69,227,000           |            |            |                  |

 $<sup>1/\,</sup>$  Reflects enacted supplementals, rescissions, and reappropriations.

<sup>2/</sup> Excludes funds for HIV/AIDS research activities consolidated in the NIH Office of AIDS Research.

#### **Details of Full-Time Equivalent Employment (FTEs)**

| Details of Full-Time Equivalent Emp  | (                                    | ,                   |                     |  |
|--|--------------------------------------|---------------------|---------------------|--|
| OFFICE/DIVISION  | FY 2008<br>Actual                    | FY 2009<br>Estimate | FY 2010<br>Estimate |  |
| Office of the Director   | 13                                   | 13                  | 13                  |  |
| Office of Administrative Management and International Services   | 11                                   | 11                  | 11                  |  |
| Division of International Training and Research  | 11                                   | 11                  | 11                  |  |
| Division of International Relations  | 11                                   | 10                  | 11                  |  |
| Division of International Science Policy, Planning and Evaluation  | 5                                    | 5                   | 5                   |  |
| Division of International Epidemiology and Population Studies  | 4                                    | 4                   | 4                   |  |
| Total  | 55                                   | 54                  | 55                  |  |
| Includes FTEs which are reimbursed from the NIH Roadm<br>FTEs supported by funds from Cooperative Research<br>and Development Agreements | ap for Medic                         | al Research         | (0)                 |  |
| FISCAL YEAR  | Avera                                | age GM/GS (         | Grade               |  |
| 2006<br>2007<br>2008<br>2009<br>2010   | 11.2<br>11.7<br>11.8<br>11.8<br>11.6 |                     |                     |  |

#### **Detail of Positions**

| GRADE  | FY 2008<br>Actual | FY 2009<br>Estimate | FY 2010<br>Estimate |
|--|-------------------|---------------------|---------------------|
|  | Actual            | Estimate            | LStimate            |
| Total, ES Positions<br>Total, ES Salary                  |                   |                     |                     |
| GM/GS-15   | 6                 | 6                   | 6                   |
| GM/GS-14   | 13                | 13                  | 13                  |
| GM/GS-13   | 3                 | 3                   | 3                   |
| GS-12  | 5                 | 5                   | 5                   |
| GS-11  | 5                 | 5                   | 5                   |
| GS-10  | 0                 | 0                   | 0                   |
| GS-9   | 7                 | 7                   | 7                   |
| GS-8   | 1                 | 1                   | 1                   |
| GS-7   | 3                 | 3                   | 3                   |
| GS-6   | 0                 | 0                   | 0                   |
| GS-5   | 0                 | 0                   | 0                   |
| GS-4   | 1                 | 1                   | 1                   |
| GS-3   | 1                 | 1                   | 1                   |
| GS-2   | 1                 | 1                   | 1                   |
| GS-1   | 0                 | 0                   | 0                   |
| Subtotal   | 46                | 46                  | 46                  |
| Grades established by Act of                             |                   |                     |                     |
| July 1, 1944 (42 U.S.C. 207):                            |                   |                     |                     |
| Assistant Surgeon General                                | 0                 | 0                   | 0                   |
| Director Grade   | 2                 | 2                   | 2                   |
| Senior Grade   | 0                 | 0                   | 0                   |
| Full Grade   | 0                 | 0                   | 0                   |
| Senior Assistant Grade                                   | 0                 | 0                   | 0                   |
| Assistant Grade  | 0                 | 0                   | 0                   |
| Subtotal   | 2                 | 2                   | 2                   |
| Ungraded   | 12                | 14                  | 14                  |
| Total permanent positions                                | 47                | 51                  | 51                  |
| Total positions, end of year                             | 60                | 66                  | 66                  |
| Total full-time equivalent (FTE) employment, end of year | 55                | 54                  | 55                  |
| Average ES salary  |                   |                     |                     |
| Average GM/GS grade                                      | 11.5              | 11.6                | 11.6                |
| Average GM/GS salary                                     | 87,472            | 93,300              | 95,819              |

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research.

#### **New Positions Requested**

|                                      |       | FY 2010 |                  |
|--------------------------------------|-------|---------|------------------|
|                                      | Grade | Number  | Annual<br>Salary |
| International Health Program Officer | GS-13 | 1       | \$102,458        |
|                                      |       |         |                  |
|                                      |       |         |                  |
|                                      |       |         |                  |
| Total Requested                      |       | 1       |                  |