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GLOBAL HEALTH MATTERS

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Health as a pillar of foreign policy

Former NIH Director **Dr. Harold Varmus** says Congress ought to double the amount of money spent on global health and highlight it "as a pillar of U.S. foreign policy."

Delivering the annual David E. Barmes lecture that Fogarty co-sponsors with the National Institute of Dental and Craniofacial Research, Varmus also said the research portfolio should be rebalanced with some of the increase directed toward chronic and neglected diseases, maternal and child health, and other issues.

"The number of dollars we are talking about here in the greater sphere of things is trivial," he said.

"When we are talking about a trillion-dollar economic stimulus package … coming up with 10 or 20 billion more to do something that affects the state of health throughout the world, to me that just seems like a matter of resolve, and we ought to resolve to do these things."

Varmus is co-chair of an Institute of Medicine committee that the day before *(continued on p. 6)*

Panels optimistic about health diplomacy

A sense of "profound optimism" about the role of science in advancing global health diplomacy pervaded a Fogarty-sponsored symposium on the subject held a week after the presidential election.

As part of its 40th anniversary celebration, Fogarty brought together two panels and an audience of more than 200 to the Georgetown Law Center in conjunction with the O'Neill Institute for National and Global Health Law, to examine the relationship between science and diplomacy and how U.S. efforts in this arena could be strengthened.

Fogarty Director **Dr. Roger I. Glass** suggested that the scientists around the globe trained through Fogarty programs—many of whom now hold leadership positions in their countries—already are engaged in global health diplomacy.

"I never thought of you as being diplomats … but in fact you are the best demonstration of the value of international research in building relationships overseas," he said.

"Global health diplomacy is at work bridging borders that are very difficult to bridge through any other means." *(continued on p. 2)*

Summit on sub-Saharan Africa

Dr. Richard G. Wyatt *of the NIH Office of Intramural Research makes a point at the Fogarty-sponsored summit on sub-Saharan Africa. To his left are Dr. Onesmo ole-MoiYoi of Kenya and* ***Dr. Anthony Fauci****, director of NIAID.* *See pages 8-9.*

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Panels optimistic about global health diplomacy

Photos by Leslie Kossoff

A 40th anniversary symposium at the Georgetown Law Center brought together government, academic and corporate leaders to discuss "The Role of Science in Advancing Global Health Diplomacy." At left, former Fogarty fellow ***Dr. Thomas Zeltner,*** *now director of the Swiss Federal Office of Public Health. Panelists, from left: Former Ambassador to Uganda Jimmy Kolker, former NIH Director* ***Dr. Elias Zerhouni****, Harvard School of Public Health Professor Dr. Jim Kim and Fogarty Director,* ***Dr. Roger I. Glass****.*

(*continued from p. 2)*

Dr. Jim Kim, former director of HIV/AIDS for the World Health Organization and now a Harvard School of Public Health professor, argued that global health is a moral imperative.

"We have to invest in global health out of self-interest to make sure that we can stop pandemic flu," he said. "It's an issue of national security, and it's a way to remake our relationship with the rest of the world."

A huge increase in scientific capacity is essential for success, according to former NIH Director **Dr. Elias A. Zerhouni**.

Although Fogarty programs have trained about 5,000 scientists globally, he claims ten times that number are needed to support robust global health diplomacy.

"Diplomacy is a negotiation activity and good negotiations require a certain symmetry—a symmetry of knowledge, a symmetry of education, of values and goals," Zerhouni said. "If not, distrust and diplomatic failure will ensue."

He cited the SARS crisis as an example.

U.S. officials were able to work well with the new Chinese Minister of Health because he was surrounded by a dozen well-prepared advisers, half of them trained through Fogarty programs, Zerhouni reported.

"A core strategic issue is how to develop sufficient and qualified local human capacity who can understand and practice the science needed to train and deploy effective and smart interventions and, more importantly, who can become real partners at the table of health diplomacy," he said.

The solution, Zerhouni said, lies in building a global network of research and training centers of excellence in the developing world in association with local institutions using common curricula, modern methods of education as well as a standardized approach to build-ing scientific capacity.

A better prepared diplomatic corps would also enhance efforts, according to Jimmy Kolker, former U.S. ambassador to Uganda.

The only diplomat represented on the panels, he called for educational standards and a better defined career track for those entering the foreign service, particularly if they intend to work in the complex realm of global health policy.

"Even hairdressers need to be licensed to do business," he said, and yet diplomats have no set performance standards or educational requirements.

Representing the private sector, Dr. Derek Yach, vice president of global health policy for PepsiCo and a former WHO executive, questioned the priorities and global health investment choices made by the U.S. government and others, doubting the wisdom of spending a thousand dollars to prevent each AIDS death and yet withholding the $20 needed to stop a nutrition-related death.

That doesn't mean AIDS treatment shouldn't be provided, he says.

"But if we are at the point of doing AIDS treatment, we should at least be doing all the cost-effective ones that are below it and that would have a dramatic, larger impact on the MDGs (Millennium Development Goals)," he said

O'Neill Institute Executive Director John Monahan, J.D., summed up: "I think there was a profound optimism underlying every person who spoke today … and I mean this in the most nonpartisan way possible, but I think there was a 'yes, we can' sense; there is a lot to do, and everybody here was talking about the possibilities and not the barriers."

Plagues part of the human condition

Pericles, plague victim

The Plague of Athens in 430 B.C., which led to the decline of the Golden Age of Greece, is one of 10 historically notable outbreaks described in an article in *The Lancet Infectious Diseases* by authors from the National Institute of Allergy and Infectious Diseases.

The phenomenon of widespread, socially disruptive disease outbreaks has a long history prior to HIV/AIDS, severe acute respiratory syndrome, avian influenza and other emerging diseases of the modern era.

"There appear to be common determinants of disease emergence that transcend time, place and human progress," says NIAID Director Dr. Anthony S. Fauci, one of the study authors.

Other factors underlying many instances of emergent diseases are poverty, lack of political will and changes in climate, ecosystems and land use, the authors contend. "A better understanding of these determinants is essential for our preparedness for the next emerging or re-emerging disease that will inevitably confront us," says Fauci.

"The art of predicting disease emergence is not well developed," says David Morens, M.D., another NIAID author. "We know, however, that the mixture of determinants is becoming ever more complex, and out of this increased complexity comes increased opportunity for diseases to reach epidemic proportions quickly."

One consequence of the increased mobility in the modern age can be seen in the 2003 outbreak of the novel illness SARS, which rapidly spread from Hong Kong to Toronto and elsewhere as infected passengers traveled by air.

To better understand and predict disease emergence, Morens and his coauthors stress the need for research aimed at broadly understanding infectious diseases as well as specifically understanding how disease-causing microorganisms make the jump from animals to humans.

"Emerging infections: A perpetual challenge." DM Morens, GK Folkers and AS Fauci. *Lancet Infect Dis* 2008; 8: 710–19.

On all their houses	
Plague of Athens	430-426 BCE
Black Death	**1340s**
Syphilis	1494-1499
Smallpox	**1520-1521**
European cattle epizootics	1700s
Yellow fever	**1793-1798**
Cholera	1832
Fiji virgin soil epidemic	**1875**
Spanish influenza	1918-1919
AIDS pandemic	**1981 --**

RAPIDD response team models epidemics

Fogarty epidemiologists are at work on a long-term program to improve mathematical modeling to aid potential government responses to an infectious disease crisis.

With support from the Department of Homeland Security, the Fogarty Division of International Epidemiology and Population Studies has begun by studying animal-to-human transmission of diseases (zoonoses) and "hierarchies" of modeling systems to see which might be best under different circumstances, says senior scientist **F. Ellis McKenzie.**

"We want to move the state of the art forward significantly," he says, planning to have a first review paper ready in 2009 on what makes a zoonosis "good" or "bad" in terms of properties that allow it to be modeled.

The other modeling track of the Research and Policy for Infectious Disease Dynamics program—

RAPIDD—will help to determine what kind of data are needed to validate the structure and results of a given model, a process McKenzie describes as "one abstraction away" from actually fighting a disease.

A new concept the RAPIDD team is working on is "staging" a nascent infectious disease outbreak by categorizing its progression, much like cancer is "staged."

The premise of the program overall is that infectious-disease modeling is a vibrant and rapidly growing field, but subfields are still in their infancies, and major developments—in research, training and links with policy—will be required to control outbreaks of new threats, McKenzie says.

At full strength, the team will comprise about 50 members.

Revised human subject protection guidelines issued

The 2009 edition of the International Compilation of Human Subject Protections has been released and is available on-line.

http://www.hhs.gov/ohrp/international/HSPCompilation.pdf

The new version lists about 1,100 laws, regulations, and guidelines on human subject protections from 92 countries, including for the first time, Burma, Egypt, the Gambia, San Marino, South Korea, the Sudan and Vietnam.

Many of the listings include the Web address, allowing the reader to link directly to the law, regulation or guideline of interest.

Applications require Adobe

Grantees and others who use electronic submissions to Fogarty and other institutes and centers will be required to use Adobe software as of Jan. 1, 2009.

To use the new forms on grants.gov, you must install Adobe Reader version 8.1.3 or later and download the new application form from the Funding Opportunity Announcement in December 2008.
For more information:

Adobe Transition—
http://era.nih.gov/Electronic Receipt/adobe_transition.htm

NIH eSubmission Web site—
http://era.nih.gov/electronicreceipt

Applicant Resources—
http://grants.gov/applicants/app_help_resol.jsp

AIDS pioneer Rosenfield dies

Dr. Allan Rosenfield, a leader in raising global health concerns about women, children and families, died in October at 75 of amyotrophic lateral sclerosis.

An obstetrician and gynecologist, Rosenfield retired as dean of the Mailman School of Public Health at Columbia University earlier this year after spending most of his career advocating for women's reproductive health, family planning and human rights in developing countries.

He paid attention to needs of the Columbia community by setting up health programs for adolescents. He also was noted for creating a program credited with saving half a million lives by preventing the AIDS transmission from mother to child.

"His commitment to improving the lives of people all across the world, from our own neighborhoods of upper Manhattan to the rural villages of sub-Saharan Africa and southern Asia, was the personification of everything we strive to achieve as a University community," said Columbia President Dr. Lee Bollinger.

Rosenfield participated in a global health leadership conference at Fogarty earlier in the year, and Center Director earlier this year, and **Dr. Roger I. Glass**, recalled:

"From his first excursion to Nigeria and Thailand right out of training to his 25 years shepherding the Mailman School to global leadership, he kept his focus on improving the lives of mothers and children while helping to educate a generation of young people in global health. His impact in the field will be long felt."

Courtesy: Columbia University

Deadline for Mann award is Jan. 15

The nomination deadline for the annual Jonathan Mann Award for Global Health and Human Rights is Jan. 15.

The award will be given at the May 26-30 Global Health Council meeting in Washington.

Criteria include: practical work in the field, linkage of health with human rights, activities in developing countries, evidence of long-term commitment, potential for strengthening nominee's work and potential for attracting additional funds.

As the first director of the World Health Organization's Special Program on AIDS from 1986-1990, Mann pioneered the approach to AIDS that continues to shape public health policy today.

For more information, see http://www.globalhealth.org/printview.php3?id=877

Global health leaders cite Center

The topic was "Developing Great Leaders in Tropical Medicine," and four of them told an audience of global health experts how Fogarty has done it.

Grantees who have become scientific stars celebrated the Center's 40th anniversary year at a symposium at the American Society of Tropical Medicine and Hygiene annual meeting in New Orleans, where a rare snowfall belied the subject matter.

Fogarty's small training and research grants to encourage young scientists are "the best return on investment we could ever make," Director **Dr. Roger I. Glass**, said. "It's good for science. It's good for diplomacy ... Our best friends overseas are people who have been trained in these kinds of programs."

*Fogarty senior scientist **Dr. Joel Breman** opens the 40th anniversary symposium held in conjunction with the American Society of Tropical Medicine in New Orleans with Center Director **Dr. Roger I. Glass**.*

Dr. King Holmes of the University of Washington, whose Fogarty-funded programs on AIDS research in Africa and Latin America have supported 207 foreign and 33 U.S. scholars, said, Fogarty is "the most important sponsor and catalyst for global health research and training in the HIV/AIDS field. It is responsible for thousands of research careers, including my own."

Dr. Stephen B. Calderwood

Noting that Fogarty is "the most underfunded NIH program," Holmes praised the Center's influence and cost-effectiveness. "Thousands are likely to become professors and research directors who train their own mentees to carry on research," he said.

Thanking Fogarty for supporting his early studies, epidemiologist **Dr. Nathan Wolfe** of Stanford University and the Global Viral Forecasting Initiative, explained how a "food security crisis" in Central Africa along with rapid urbanization has created a market for small game, or "bush meat."

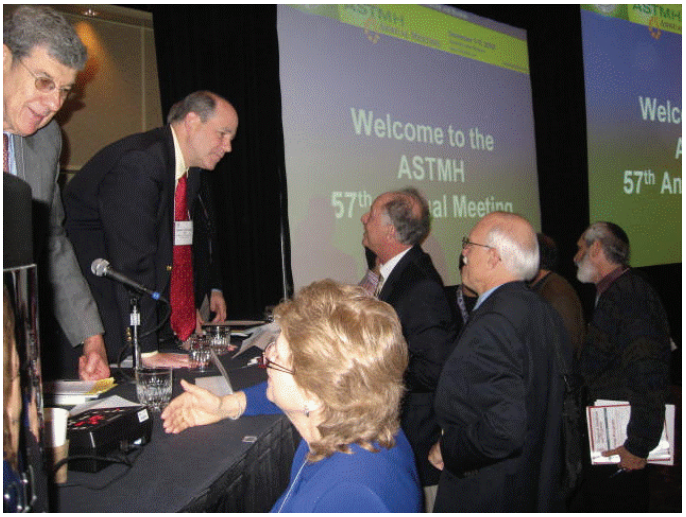
The contact by hunters and communities with microbe-infected animal organs and blood can breed new viruses, and pandemics, more rapidly than ever, he said.

"Just as we discovered in the 1960s that it is better to prevent heart attacks than try to treat them, over the next 50 years we will realize that it is better to predict and stop pandemics before they spread," he said.

Dr. Stephen B. Calderwood, chief of infectious diseases at Massachusetts General Hospital, calling Fogarty "critical in making advances in global health research," reviewed the work of Center-sponsored trainees in his anti-cholera program in Bangladesh, which has produced 29 peer-reviewed papers from Fogarty trainees in recent years.

Malaria research conducted by **Dr. Philip J. Rosenthal** of the University of California, San Francisco, has produced about two dozen trainees supported by Fogarty since 2000. These scientists, working in Uganda and Burkina Faso, have made advances in anti-malarial therapies and have been tracking the spread of the disease among children and describing HIV-malaria co-infection.

Fogarty senior scientist **Dr. Joel Breman**, who brought the panelists together, explained the Center's success. "Our programs are flexible, funding categories can move back and forth, and our grants are leveraged with other sources of funding. The center of gravity moves into the country where we are operating. More and more, the research is linked to public health programs—research tied to policy."



Symposium panelists renew old acquaintances among prominent tropical medicine experts.

Varmus calls for more global research funding

(continued from p. 1)

had released a set of recommendations to the Obama administration, calling for a doubling of federal aid for global health to $15 billion in four years, for health-related Millennium Development Goals like AIDS and other infectious diseases as well as for noncommunicable chronic diseases and injury prevention.

Noting that much of the world blames the United States for the world's economic crisis, Varmus said, "Our reputation depends on exerting humanitarian leadership. If we can continue printing money for automakers, we ought to do it for global health as well."

The IOM report, "The U.S. Commitment to Global Health: Recommendations for the New Administration," was based on extensive public hearings and timed to coincide with the presidential transition.

It is the first part of a follow-up to the 1997 report on the subject, "America's Vital Interest in Global Health: Protecting Our People, Enhancing Our Economy, and Advancing Our International Interests." The rest is due in several months, covering the role of nongovernmental institutions.

In the new report's central recommendation, "The committee is calling on the next president to highlight health as a pillar of U.S. foreign policy," perhaps by making a major speech early in his tenure declaring an American responsibility and opportunity to contribute to improved health around the world.

It also urged President-elect Obama to appoint a coordinator to the White House staff to oversee government's global health initiatives, possibly under aegis of the National Security Council.

The committee singled out Fogarty as a success story for having "played a pivotal role in building the capacity of researchers in low- and middle-income countries," citing the AIDS training and research program and the new chronic diseases awards to build research capacity.

Varmus and Fogarty Director **Dr. Roger I. Glass** noted that since the 1997 report the outlook for global health has changed dramatically.

"We've seen enormous changes—huge investments in global health from both the private and public sectors," Glass said. "We've witnessed a shift in approach as well—with a growing recognition of the role global health can play in diplomacy and economic development."

Polls have shown that health now ranks among Americans' top priorities for development assistance, said the committee, whose work was sponsored by four government agencies, including NIH, and five private foundations.

Sixteen Institutes and Centers joined Fogarty in supporting the effort.

While the committee did not shy from calling for more funding, it stressed responsible spending, declaring, "Congress and the administration should require that aid be accompanied by rigorous country- and program-level evaluations to measure the impact of global health investments in order to maximize their effectiveness."

Although it praised of the work of the World Health Organization, the committee called for a "rigorous external review" of the U.N. agency to improve its structural and functional effectiveness.

Varmus, co-recipient of a Nobel Prize for studies of the genetic basis of cancer, is president of Memorial Sloan-Kettering Cancer Center. The lecture honors the late David E. Barmes, a special expert for international health at the NIDCR.

"The U.S. Commitment to Global Health: Recommendations for the New Administration"
http://tinyurl.com/6epwqo

Hoop dancer

Kevin Locke, of the Lakota and Anishinabe Tribes, performs a hoop dance during observation of American Indian and Alaska Native Heritage Month, an NIH event co-sponsored by Fogarty.

Marmot assails health disparities

Sir Michael Marmot, one of the world's leading social epidemiologists, says political action ought to go hand in hand with more research.

Sir Michael Marmot

"I think these two bird calls can work in harmony," he said in an energetic lecture at Wilson Hall.

Marmot chaired a recent WHO commission on social determinants of health and offered numerous examples of health disparities from its findings.

"In the Scottish city of Glasgow, men in the poorest part have a life expectancy of 54 and in the richest part they have a life expectancy of 82—a 28-year difference," he said.

"In Washington D.C., life expectancy for black men is 63—in the suburbs of Montgomery County, Maryland (home to the NIH), it's 80."

Marmot, director of the International Institute for Society and Health at University College London, also stressed the importance of health care systems as one of the social determinants of health. He said while health care inequities are not the primary cause of disparities in outcome, 100 million people worldwide are still forced into poverty every year as a result of out-of-pocket health care expenditures.

Marmot offered some optimism, citing the success of social programs targeting negative parenting, such as the Sure Start program in England. "We do have in our hands the tools to make a major difference in the gap within and between countries," he said. "Were we to try to put into action much of what we know, we could go a long way toward closing the gap in a generation."

Marmot, a cardiologist by training, was knighted for his work in epidemiology and for his understanding of health inequalities.

For more on the WHO report, see *http://www.tinyurl.com/4b4l6n*

'Housewives' are face of HIV in India

From a scientific hunch and a series of small Fogarty grants, Dr. Suniti Solomon has become one of India's' leading figures in AIDS research, prevention and treatment.

Speaking recently to Fogarty scientists, she said India's culture, which at first refused to believe her findings in 1986 that AIDS had come to the subcontinent, still stigmatizes patients so much that a majority of infected people avoid community hospitals and seek private treatment instead.

That, she says, is why more emphasis should be put on training care givers in the private sector.

Cultural norms also are responsible for the fact that nearly one-quarter of HIV-positive clients at her center are "housewives. Not sex workers, not truckers."

Prevalence is so high among housewives because husbands have multiple partners and marry despite knowledge of their HIV status, she said.

"The needs of patients are not just medical, especially in a country like India with all the culture (barriers)," Solomon said, explaining why her center engages in marriage counseling among HIV-positive couples.

Courtesy: World Bank

HIV incidence in Chennai, India, is highest among a surprising demographic slice, says AIDS pioneer Dr. Suniti Solomon.

Trained as a microbiologist, Solomon began reading journal articles in the mid-1980s about the spread of HIV in North America, Europe and Africa and thought, "If it's come there, it must have come to India."

As a government doctor in Chennai in 1986, Solomon took advantage of the local police practice of rounding up prostitutes by going to the jail at 6 a.m. and drawing blood from them.

When six of the samples showed positive for HIV, she had them reviewed and then sent them to **Dr. Thomas Quinn**, a Fogarty grantee at Johns Hopkins University, for confirmation. She said the result was denial by Indian government officials that there were homosexual men or drug users.

Eventually, she opened the Y.R. Gaitonde Centre for AIDS Research and Education, which Fogarty international program officer Thomas Mampilly calls "one of the most successful research institutions in all of India."

Since that first hunch two decades ago, Solomon, a Fogarty partner in the AIDS Training and Research Project in southern India, credits the Center with not only setting her on a successful research path but enabling her to leverage early grants into large contributions from the private sector, as well as from NIH.

Turning African 'brain drain' into 'brain gain'

Converting a brain drain into a "brain gain" occupied science leaders from sub-Saharan nations, Africans who now work in U.S. labs and NIH leadership at a recent Fogarty-sponsored summit on African research.

The conference on campus drew more than 100 people, including representatives from 25 of the 27 institutes and centers and came two weeks before the worldwide health research gathering in Bamako, Mali. In Bamako, health ministers urged countries to spend at least 2 percent of their health budgets on research and charities 5 percent. *http://tinyurl.com/5lhfu3*

Dr. Winston Soboyejo, of the African Institute of Science & Technology at Princeton University, suggests establishing "virtual" centers of excellence.

During a day and a half of freewheeling discussion, conference cohost **Dr. Charles N. Rotimi**, the Nigerian-born-and-educated director of the NIH Center for Research on Genomics and Global Health, noted the high level of research that is already going on in the region and asked the central question: "How do we change from a brain drain to a brain gain for the region?"

The imperative to strengthen the scientific research enterprise stems from sub-Saharan Africa's high level of disease, low level of trained medical professionals and actual decline in life expectancy in recent years, said **Dr.** Roderic Pettigrew, director of the National Institute of Biomedical Image and Bioengineering.

The challenge, he said, is "the retention of trained medical professionals … to induce them to return to their home countries, where the need is even greater."

NIH has had a long-standing relationship with African researchers both as a result of extramural grant funding as well as its intramural program, said Fogarty Director **Dr. Roger I. Glass**. The goal of the meeting was to better understand specific actions the NIH could take to bolster the scientific research enterprise in the poorest countries of the continent, including making use of the expatriate scientists.

"As development agencies and private foundations recognize the relationship between health and development, we must establish more systematic working arrangements between academic health centers and these organizations to more fully integrate biomedical and behavioral research into health and assistance programs," said **Dr**. **Raynard Kington** at his first major appearance since becoming acting director of the NIH.

"This can only happen if we create more opportunities for scientist-to-scientist interactions, facilitate institutional capacity building and gather sufficient knowledge of one another to take hold of every available scientific opportunity," he said in his keynote address.

The shortage of mentors and innovative technology outside their home institutions and countries is a powerful lure for the best young African scientists to pursue their careers in America or high-income countries, especially when African governments may not put public health or scientific research high on national agendas, participants said.

"If you invest in people in Africa and you invest in ideas in Africa and if you engage the governments to provide the mechanisms to sustain these efforts, the brain drain would be resolved," argued **Dr. George Mensah**, a Nigerian-trained cardiologist with the CDC, argued. "But if you invest in the diaspora, that would worsen the brain drain and make even more people come to the disapora."

It is up to science professionals themselves to take the lead in getting NIH, European Union and other support, said **Dr. Onesmo ole-MoiYoi**, a scientist and administrator with the International Centre of Insect Physiology and Ecology in Kenya.

He called on diaspora scientists to visit sub-Saharan African more frequently, collaborate with its scientists, take sabbaticals to the region and exchange staff. He urged African scientists to convince governments of Africa to accord research a high priority.

Dr. Clement Adebamowo, a Fogarty bioethics grantee and chair of the Nigerian National Health Research Ethics Committee, noted that the diversity of African populations create rich research opportunities, citing as an example his own country, with more than 250 different ethnic

(continued on p. 9)

*Acting NIH Director **Dr. Raynard Kington**, left, opens the Fogarty-sponsored conference on how to strengthen research in sub-Saharan Africa. Fogarty Deputy Director, **Dr. Michael Johnson** is at right.*

NIH support for sub-Saharan region on table

(continued from p. 8)
groups. Diverse cultural attitudes and dietary habits provide the base for studies on genetic and environmental factors that cause disease, he said.

Dr. Winston Soboyejo runs the U.S./Africa Materials Institute at Princeton, a "virtual" organization of U.S. and African faculty, scientists and students.

He suggested that since pharmaceutical companies already are in other countries doing clinical trials, they might have a stake, along with NIH and other government agencies, in training a new generation of scientists relying on long-distance learning and ethically sound clinical operations.

Scientists from sub-Saharan Africa working in the United States, those remaining in their countries and institute and center leadership hashed out ideas on how the NIH can better support regional research and training initiatives.

Under his mentorship, 16 researchers visit America to work with collaborators up to six months, then return to their home countries to continue their work. While many return to the United States to engage in a specific project, their overall research agenda must take a systems-based approach in one of four areas the institute focuses on.

One example of how NIH collaboration with researchers in West Africa can help U.S. citizens is Rotimi's program of studying diabetes, which is far more prevalent in African-Americans than in their ancestors due, apparently, to a combination of genetic and environmental components.

There was general agreement that research opportunities should be sought in cardiovascular disease, cancer and other chronic conditions that reduce lifespan in low- and middle-income countries.

Much of what Fogarty has done in building North-South partnerships has been founded on a few basic principles, **Dr. Thomas Quinn** of the intramural research division of NIAID explained:

They are: The goals must be defined and specific; the relationship must be based on trust, ethics, respect and understanding of cultural differences; research and

Dr. Brigitta Mueller of Baylor College of Medicine and Dr. Raj Ramesar of the University of Cape Town, participate in the opening session of the Africa summit, sponsored by Fogarty, NCI and NHGRI.

Africa summit recommendations

- Increase research visibility in Africa.
- Increase the role of diaspora scientists.
- Develop regional networks and institutions.
- Build bricks-and-mortar *and* virtual infrastructure.
- Create new relationships with technology ministries.
- Explore new routes of support from other ICs.
- Raise African representation in intramural programs.
- Work with others in global health and in Africa.
- Leverage networks, organizations, data sources.
- Ensure sustainability and equitable, bi-directional collaborations.

Culture of merit instilled in Tanzanian trainees

A recent visit to the Kilimanjaro Christian Medical Centre's new biotechnology lab in Moshi, Tanzania, found trainees working on HIV and TB testing, bacteriology cultures and immunologic, microbiologic, hematologic and chemistry studies.

The collaboration among the medical center and Duke University and the University of Virginia is part of Fogarty's signature AIDS International Training and Research Program, now 20 years old and its longest running.

The program provides short-, medium- and long-term training opportunities for Tanzanian students, including training in the United States and at regional sites with sub-Saharan Africa.

The application process highlighted a difference in the Tanzanian working culture compared to that of the United States. Seniority is often valued over merit. Not so in the AITRP application process; the person who came in second was the least senior.

Jean Gratz, the laboratory quality assurance coordinator, says the value of the Fogarty-backed experience is "They go for one month, they learn, they come back, and they teach their peers. It gives our site a boost, an infusion of energy."

Photo by Jenny Haliski

Farida Segesela was among the first group of Tanzanian biotechnology lab staff selected to participate in a short-term training opportunity,

Among many challenges is coping with frequent power outages and surges, solvable ultimately by installing a generator and a voltage regulator.

Principal Investigator Dr. John Crump of Duke says his goal is long term–to improve the operation over a period of decades.

"Over that length of time, what staff can we train, what infrastructure can we establish, and what papers can we publish with data that will influence health policies?

"Our goal is to give all aspects of the program into well-equipped Tanzanian hands. That's probably about 10 years away, and AITRP is of central importance in reaching that goal," Crump predicts.

Jenny Haliski, reported from Moshi, Tanzania, for Global Health Matters.

Decrease in malaria seen in Kenya

Fogarty scientist **Dr. Wendy P. O'Meara** led a team of researchers that recently documented a dramatic decline in childhood malaria in eastern Kenya and cast doubt on speculation that it might paradoxically lead to higher death rates among older children.

Their study appeared in *The Lancet* and was based on 18 years of data about the decreasing transmission rate of malaria and its potential effect on older children and adults who, by not having been infected as infants, were thought to have been at greater risk of severe illness or death if they got the disease later.

Within the past five years, malaria deaths fell more than 75 percent in the study area of Kilifi, a coastal district in Kenya. Reasons may have been more use of insecticide-treated bed nets and the use of newer drugs.

"Changes in transmission might not lead to immediate reductions in incidence of clinical disease," the authors wrote.

"However, longitudinal data do not indicate that reductions in transmission intensity lead to transient increases in morbidity and mortality."

"There are many factors that may have contributed to this dramatic reduction in malaria deaths, but one thing is clear: We must not become complacent," says co-author Dr. Kevin Marsh.

"Effect of a fall in malaria transmission on morbidity and mortality in Kilifi, Kenya." Wendy P. O'Meara, Phillip Bejon, et. al. *Lancet.* 2008 Nov 1; 372(9649):1555-62.

Photo by Wendy Prudhomme

Community health education in the Kilifi district on the coast of Kenya is one factor in the reduction of malaria. A new study finds no increase in deaths from malaria in older children as transmission rates decline.

Sight set on thinking globally, acting locally

Before National Eye Institute Director **Dr. Paul A. Sieving** traveled to China to lecture at Tianjin Eye Hospital, a local high school English teacher saw a poster promoting the event and immediately thought of his father who was experiencing vision loss.

The man turned to the Internet, where he found NEI's email address for public inquiries.

He wrote: "I've checked out your Web site, which gives me the impression that you do research, not treatment. However, I still bear the slightest hope that Dr. Sieving can give my father's eyes a look during his stay in Tianjin…my family and I are really anxious and worried about his eyes."

The message was forwarded to Sieving as he was en route to China, but he immediately agreed to the request.

"This was an opportunity for me to gain insight into the realities of eye care in China," Sieving explained.

Courtesy, National Eye Institute

NEI director Dr. Paul A. Sieving worked with Dr. Chen Song of Tianjin Eye Hospital.

"Not only was this a chance to see eye care from a patient's perspective, but it was also a unique means for an educational collaboration."

While Sieving examined the 60-year-old man, seven other health care professionals observed.

Their discussions resulted in a diagnosis of choroidal neovascular age-related macular degeneration (AMD), a form of the disease that involves the growth of new blood vessels in the eye. The man underwent imaging tests and was later evaluated for treatment.

"This is an example of how NIH scientists can form international collaborations that start at the level of a single patient and may ultimately grow to include innovative training and research programs," says Fogarty Director **Dr. Roger I. Glass.**

Reported by Allyson T. Collins, National Eye Institute

Implementation funds available, says Glass

Fogarty Director Dr. Roger I. Glass attended the ministerial meeting on health research in Bamako, Mali, and reports that three major funders let it be known they have money for implementation research that has not been fully tapped.

A key issue, they said, is finding capable people to apply and demonstrate value in this kind of research, which all three—the World Bank, the U.S. Agency for International Development and the Global Fund to Fight AIDS, Tuberculosis and Malaria—are championing.

Glass was among 1,100 participants from government, intergovernmental and nongovernmental organizations, the private sector, research institutions and research councils, civil society and the media.

The final communiqué called on all nations to earmark 2 percent of their overall health budgets to research and private organizations to donate 5 percent of their development funds to medical research.

Additionally, the conference urged research to follow "country-led research strategies," that is, subordinating private agendas to priorities set by individual nations.

To read the communiqué, visit *http://tinyurl.com/5lhfu3*

Photo by Olivier Asselin

*Fogarty Director **Dr. Roger I. Glass**, right, goes over the agenda of the Bamako ministerial meeting on health research with Dr. Tim Evans, assistant director-general for information, evidence and research at the World Health Organization.*

Social justice looms large, says Fogarty trainee

Fogarty International Clinical Research Scholar **Justin List** has coauthored a paper accepted by *The Medscape Journal of Medicine* on the "service learning" aspects of his and colleagues' experiences in the program.

The Scholars program sends U.S. medical students abroad, pairing them with scholars in their own countries to work under the mentorship of Center grantees. (See *Global Health Matters, July-August, 2008)* List is in Uganda, and, in the article, he weighs the risks and benefits of such opportunities.

"The risks and concerns include negative features of medical tourism and leaving students paralyzed by intense experiences abroad," he writes, with coauthor Dr. Kayhan Parsi of Loyola's Stritch School of Medicine. "Most important, the risk for dependence on or resentment toward medical students exists."

The risks may be reduced, however, they say, through programs that promote "cultural sensitivity, individual and community empowerment and education in the historical and global forces that shape communities abroad."

Aside from the clinical skills they may learn, "Students engaged in service learning in some of the most impoverished places experience a burden of knowledge that for many demands a response and unparalleled opportunity to address disparities."

Justin List

In addition, the authors say, service learning "cultivates essential citizenship skills" that align with an increasingly valued public role physicians want.

The role of mentors is critical, say Parsi and List, because "Medical educators who can further empower these students through training in critical reflection and response stand to inspire a broader movement for more justice in global health."

"Preparing Medical Students for the World: Service Learning and Global Health Justice." *Kayhan Parsi and Justin List. Medscape J Med. 2008;10(11):268*

Young scholars reflect

Fourth-year medical students who had been part of Fogarty's International Clinical Research Scholars program last year returned to the campus recently along with about 350 students from other academic programs to reflect on their experiences.

*Center Director **Dr. Roger I. Glass** and program officer **Dr. Aron Primack** met informally with the Fogarty contingent. Pictured here, from the left, are: Shelene Poetker, Charles Washington and Nancy Hancock.*

EU gives U.S. scientists piece of the pie

An agreement announced by former NIH Director **Dr. Elias Zerhouni** just before his departure will make it easier for U.S. scientists to participate in international collaborations funded by the European Commission.

In a joint letter to the editor of Science Magazine, Zerhouni and his counterpart, Dr. Janez Potočnik, commissioner for science and research for the European Union, announced elimination of ambiguous wording in the Europeans' rules that had limited American participation in joint studies to those funded only by U.S. dollars. *(See "Guest Opinion" on p. 14.)*

As a result, American scientists will, for the first time, not only be eligible to participate in European Commission-supported research projects, but also receive funds from the EC if they are part of a consortium with European Union investigators.

For years, European researchers have been able to compete for NIH biomedical and behavioral research grants directly and in joint projects with Americans.

Dr. James Herrington, head of Fogarty's Division of International Relations, estimated that as much as $7 billion would be potentially available to American scientists. "This isn't just about leveling the playing field, but about recognizing that research is increasingly complex and reliant on cooperation across disciplines and across borders," he said.

Zerhouni and Potočnik characterized the agreement as one "to reinforce our mutual interest in scientific collaboration. We believe that greater trans-Atlantic cooperation and smarter competition in science will lead to faster breakthroughs in health research, and ultimately to a better quality of life for the citizens of the world."

Academics form global health consortium

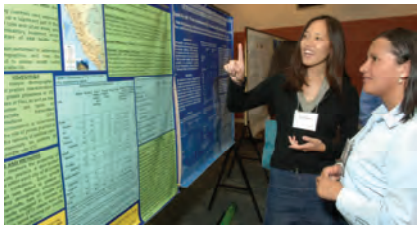
Leaders from 20 top North American universities agreed recently to promote collaboration in global health research, training and practice.

First proposed in 2004 by **Dr. Gerald Keusch**, associate provost for global health at Boston University and a former Fogarty director, the University Consortium for Global Health was launched this fall with the simple vision to "make the university a transforming force in global health."

Fogarty Deputy Director **Dr. Michael Johnson** attended the organizing meeting, noting later that "Fogarty grants have played an important role in the development of global health centers.

A consortium of such centers seems to be a natural outgrowth of the Fogarty Frameworks program to get researchers from many disciplines out of their silos, working together, and into the field—their fields and their colleagues' fields."

This was the third discussion held to develop such an academic partnership—a 2007 meeting settled on 10 principles that this year's executive committee adopted—and the 53 participants immediately agreed to open the consortium eventually to universities in other parts of the world and strive for greater gender, ethnic and geographical diversity in its own leadership.



The consortium hopes to help unify the field of global health.

The September consortium launch included 20 global health programs at North American universities that met criteria established by the initiators: a commitment of institutional resources and a director reporting to the central administration; interdisciplinary involvement of more than one academic school; activities that include education, training, research and health service delivery; and established international partnerships.

Despite an explosion in student and faculty interest in global health, establishing a solid academic base faces challenges, organizers said, not the least of which is an agreed-upon definition of global health.

Also, they said, there is no standardized curriculum or set of core competencies, "field placement of students has been chaotic" and little coordination exists between "north" universities working in the global "south" to avoid duplication and promote collaboration.

Dr. Haile Debas hosted the meeting at the University of California, San Francisco, which was supported by a grant from the Bill and Melinda Gates Foundation.

He urged participants to move beyond their individual disciplines and "create a big global health tent that can house all of us, promote collaboration and dispel the disciplinary turf battles that have divided us."

The consortium's initial members are: Boston University, Brown, Case Western Reserve, Cornell, Duke, Emory, Harvard, Johns Hopkins, McGill, Notre Dame, UCSF, University of Alabama at Birmingham, Michigan, North Carolina, Penn, University of Toronto, Virginia, University of Washington, Vanderbilt and Washington State.

Guest Opinion

By Elias A. Zerhouni and Janez Potočnik

Global collaborations are essential

The National Institutes of Health and the European Commission recently decided to reinforce our mutual interest in scientific collaboration. We believe that greater trans-Atlantic cooperation and smarter competition in science will lead to faster breakthroughs in health research, and ultimately to a better quality of life for the citizens of the world.

The NIH has a long tradition of funding collaborations between U.S. and European scientists. To this end, the NIH recently clarified its policies for funding global collaborations.

And on 3 September 2008, the European Commission published a new call for proposals within the health theme of its Seventh Framework Programme for Research and Development. For the first time, the EC has announced that researchers working in U.S. institutions are eligible not only to participate in EC-supported research projects, but also to receive funds from the EC if they are part of a consortium with European Union investigators.

We live at a time of great scientific opportunity, where global collaborations are essential for facilitating scientific discoveries aimed at improving public health. As science has become more complex, so has the need for both specialization and multidisciplinary approaches to problem-solving.

While discovery increasingly depends on a new level of collaboration, it also depends on expertise, which may not reside within one country or even within one continent.

A prime example of global collaboration is the tremendously successful Human Genome Project, which reached its goals ahead of time and under budget.

Similarly, global collaboration is essential to the conduct of clinical trials and genetic research, where disease prevalence in a given region enables research that could otherwise not be conducted in the confines of a single country.

We hope that our initiative, aimed at opening our research programs, will serve as a launch pad for wider and more intense U.S.-EU cooperation in health as well as in other areas of research.

This is an historic step for our institutions today, and we are confident that it will also prove to be a significant step for the future of science.

Elias A Zerhouni was director of the National Institutes of Health from 2002-2008. Janez Potočnik is commissioner for science and research, Science and Research European Union.

Global Health Briefs

Bed net use up, but many still at risk

A study on insecticide-treated bednet use in 40 African countries from 2000-2007 has found that protection for children increased from 1.8 percent to 18.5 percent, leaving 89.6 million children at risk for malaria. Usage was higher in countries where distribution was free, according to the article in the Nov. 18 issue of *The Lancet. http://tinyurl.com/6lhtuk*
(*See related story, this issue of GHM, p. 10)*

Measles mortality drops worldwide

A worldwide effort to combat measles resulted in a 74 percent reduction in fatalities between 2000 and 2007. The report comes from the Measles Initiative, composed of the American Red Cross, the CDC, the UN Foundation, UNICEF and WHO. In the region including Afghanistan, Pakistan, Somalia and Sudan, measles mortality fell 90 percent. Details are available at *http://tinyurl.com/6yvsh4*

Nearly half of XDR-TB cases are fatal

A recent article in the *American Journal of Respiratory and Critical Care Medicine* has found that 49 percent of those infected with extensively drug-resistant tuberculosis will die from it. By contrast, multi-drug resistant TB has a fatality rate of 19 percent. XDR-TB is particularly prevalent in Eastern Europe, China and India and, according to WHO, drug-resistant TB of any variety now accounts for about 5 percent of all new TB cases reported each year.
http://tinyurl.com/5wabhg

Global Fund adopts new drug financing

The board of the Global Fund to Fight AIDS, Tuberculosis and Malaria has adopted a new financing method to get anti-malarial drugs into poor countries—by relying on the market system instead of grants to governments. Under the plan, as reported by *Science* magazine, drug companies would sell to regional wholesalers at a fraction of the cost—the difference being made up by the Fund. Wholesalers would then pass the lower-cost drugs down the supply chain to retailers in remote villages. *http://tinyurl.com/6agfby*

Can you hear me now?

A public health campaign featuring a cellular ringtone that chirps “condom, condom” may be responsible for an 85 million increase in condom sales in India, according to the country’s National AIDS Control Organization. The campaign also includes mass media advertisements that have reached 150 million men, including migrant workers who engage the services of commercial sex workers. Sujatha Rao, head of NACO, said the prostitutes report men "would rather pay more than use a condom."
http://tinyurl.com/6zb2ug

PEOPLE

Daschle named secretary of DHHS

President-elect Barack Obama has selected **former Sen. Tom Daschle** as secretary of health and human services. In addition to heading the department, Daschle also will serve as Obama's White House adviser on health reform. Daschle said his role would be "not just implementing reform but helping to generate it" as well as supporting the "researching the cures of tomorrow."

CNN series features Dr. Nathan Wolfe

Dr. Nathan Wolfe, a Fogarty and NIH grantee, was featured on CNN's "Planet in Peril" series recently as Anderson Cooper traveled with him through the jungles of Cameroon following small game hunters. In a time of rising food prices, the bush meat feeds their families and can be sold in urban areas. But the contact between hunter and animal is a leading cause of new viruses that can spread around the world in hours. Wolfe also spoke at a Fogarty-sponsored symposium at the American Society of Tropical Medicine and Hygiene *(see p. 4)*

Grantee can be heard on mollusk podcast

Dr. Margo G. Haygood of the Oregon Health & Science University, who recently won a $4 million award from Fogarty and other federal agencies, explained her project of studying sea snails and shipworms on a podcast produced by Genetic Engineering and Biotechnology News. Her work in the Philippines— is "right smack in the center of the region of highest marine biodiversity on earth." Hear the podcast at *http://tinyurl.com/5z23qh*

Rosenthal speaks on biodiversity value

Dr. Joshua Rosenthal, Fogarty's deputy director of international training and research, was part of a symposium panel at the recent National Council for Science and the Environment biodiversity conference.

He spoke on the value of biodiversity to the search for new medicines and therapies and the role of animals, plants, and microbes in understanding human physiology, disease and dysfunction.

Birnbaum returns to head NIEHS

Dr. Linda Birnbaum, a microbiologist and president-elect of the International Union of Toxicology, will become director of the National Institute of Environmental Health Sciences in January. Birnbaum has served as a federal scientist for nearly 29 years—the first ten of those at NIEHS—and most recently as a senior adviser at the Environmental Protection Agency, where she served for 16 years as director of the Experimental Toxicology Division. She succeeds **Dr. David Schwartz**.

Rockey designated acting head of OER

Dr. Sally Rockey has been named Acting Director of the NIH Office of Extramural Affairs. She joined the NIH in late January 2005 as the OER deputy director. Previously, she was chief information officer at the Cooperative State Research, Education and Extension Service of the Agriculture Department. At OER, Rockey led the transition from paper to electronic applications and served as the NIH research integrity officer.

Sabin Institute names new chairman

Retired businessman and philanthropist Morton P. Hyman has been named chair of the Sabin Vaccine Institute, succeeding founding president Dr. Philip K. Russell.

"Mort Hyman's election as board chair comes at an opportune time as we expand our activities into multi-dimensional aspects of neglected tropical and other infectious diseases," says President **Dr. Peter Hotez**, a member of Fogarty's advisory board.

UNAIDS gets new executive director

United National Secretary General Ban Ki-Moon has named **Michel Sidibe** of Mali as the new executive director of UNAIDS, succeeding Peter Piot as of Jan. 1. Piot announced his retirement earlier in 2008 after 13 years in the post.

"He brings a wealth of experience together with a firm commitment to human rights and to greater involvement of people living with or affected by HIV-AIDS," Ban said.

Funding Opportunities

International Research Scientist Development Award (IRSDA)	Barbara Sina, Ph.D. Barbara_sina@nih.gov	January 16, 2009	Postdoctoral biomedical, epidemiological, clinical, social and behavioral scientists in the formative stages of their careers to conduct research in developing countries.
International Research Collaboration – Basic Biomedical Research Award	Kathleen Michels, Ph.D. FIRCA@nih.gov	January 28, 2009	Scientists with an active NIH-funded research grant and who want to initiate/extend international research collaborations in biomedical research.
Brain Disorders in the Developing World (BRAIN) (R21)	Kathleen Michels, Ph.D. michelsk@mail.nih.gov	May 15, 2009	This program supports collaborative research and capacity-building projects on nervous system disorders throughout life and is relevant to low- and middle-income countries. Funded projects focus on nervous system disorders, function and impairment throughout life. R21 grants provide support to conduct pilot studies and to organize, plan for, prepare, and assemble an application for more comprehensive R01 grants that incorporate research, research training and capacity-building.
Brain Disorders in the Developing World (BRAIN) (R01)	Kathleen Michels, Ph.D. michelsk@mail.nih.gov	May 15, 2009	This program supports collaborative research and capacity building projects on nervous system disorders throughout life and is relevant to low- and middle-income countries. Funded projects focus on nervous system disorders, function and impairment throughout life. R01 awards involve substantial collaboration between developed and developing country investigators and incorporate research, research training and capacity building.
International Research Collaboration – Basic Biomedical Research Award	Kathleen Michels, Ph.D. FIRCA@nih.gov	May 28, 2009	Scientists with an active NIH-funded research grant who want to initiate or extend international research collaborations in biomedical research.

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Abstracts sought for IAS conference

The deadline for abstract submission, registration and exhibition information is Feb. 25, 2009, for the 5th International AIDS Society Conference on HIV Pathogenesis, Treatment and Prevention. It will be held in Cape Town, South Africa, July 19-22, 2009.

To access or create a conference profile and submit an abstract:
http://www.ias2009.org/subpage.aspx?pageId=355

Abstract submission guidelines, program tracks and other abstract related information are available at:
http://www.ias2009.org/mainpage.aspx?pageId=334