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Knaul Urges World To Close the Cancer Divide
By Susan Johnson

Quick: What are some of the diseases that most affect the world’s poor?

Did HIV/AIDS, malaria or cholera come to mind? What about cervical cancer? It’s likely that this disease was not near the top of—or even on—your list, even though more than 90 percent of deaths from this cancer occur in low- and middle-income nations. In fact, two-thirds of all cancer deaths in the world are in low-income countries and 80 percent of all avoidable cancer deaths occur in low- and middle-income countries.

Dr. Felicia Knaul, keynote speaker at the Cancer Detection and Diagnostics Technologies for Global Health conference on Aug. 22-23, spoke

Lasker Awards Honor Clinical Center, Former Grantees

The Clinical Center was honored by the Albert and Mary Lasker Foundation when it received the 2011 Lasker-Bloomberg Public Service Award on Sept. 23.

Also honored were two former grantees of the National Institute of General Medical Sciences, who won this year’s Albert Lasker Basic Medical Research Award. Drs. Franz-Ulrich Hartl and Arthur L. Horwich were cited “for discoveries concerning the cell’s protein-folding machinery, exemplified by cage-like structures that convert newly made proteins into their biologically active forms.”

The award to the Clinical Center took note of its global reach (149 countries represented), breadth of illnesses under study (575 unique conditions) and record of achievement since it opened almost 60 years ago. The Undiagnosed Diseases Program, which began in 2008 at the CC, also earned recognition as a new venture extending a tradition of research excellence.
Márquez To Keynote NIH Hispanic Heritage Month Event, Oct. 5

NIH will celebrate Hispanic Heritage Month on Wednesday, Oct. 5 from 11 a.m. to noon in Masur Auditorium, Bldg. 10. The national theme is “Many Backgrounds, Many Stories ...One American Spirit.”

The keynote speaker will be former NIH’er Dr. Ernest D. Márquez, who now serves as president of the board of directors at the Society for Advancement of Chicanos and Native Americans in Science (SACNAS). Recently retired as NIMH associate director for special populations, he will discuss how the newly established NIH SACNAS chapter enhances NIH efforts to attract, recruit and retain Hispanic scientists. In addition, he will comment on trends relating to graduation rates, training opportunities and career progression of Hispanic researchers.

Also invited to attend the program are students from Wheaton High School in Silver Spring. Their visit is being sponsored by the NIAMS Career Development and Outreach Branch in collaboration with the NIH Office of Equal Opportunity and Diversity Management as part of a special local outreach and education program.

Following the event, attendees can sample traditional foods in the CC south entrance lobby between noon and 12:30 p.m. Sign language interpreters will be provided. People who need reasonable accommodation to participate should contact Kim Kirkpatrick, NIH Disability Employment Program manager, at (301) 451-0748, or the Federal Relay Service at 1-866-377-8642. Direct program inquiries to Gerard Roman, acting Hispanic Employment Program manager, at (919) 541-3430.

NIH Touted by AARP for 50+ Employment

For the second straight time, AARP has ranked NIH third in its Best Employers for Workers Over 50 list. No other federal agencies ranked in the top 50 list in 2011. Scripps Health and Cornell University occupied the top two spots.

NIH was the first federal agency to be ranked in the Best Employers and has been on AARP’s list since 2008, finishing third in 2011 for the second competition in a row. Forty-three percent of NIH employees are age 50 or over, with an average employee tenure of 15.25 years.

NIH’s commitment to readying workers for retirement was a chief factor for AARP. Many offices, including the NIH Training Center, the credit union, the benefits office and the Recreation and Welfare Association provide resources to help employees make informed financial decisions as they near retirement.

Exemplifying this are NIH’s quarterly financial seminars, which offer employees guidance on estate planning, college funding, Thrift Savings Plan investing, Social Security and tips for investing and fraud avoidance.

NIH was also credited with offering tuition reimbursement, certification classes, in-house classroom training, online training, commercial training, professional conferences and student loan repayment programs. AARP noted that 100 percent of employees had participated in at least one of these opportunities.

Graduate Student Research Conference Set, Oct. 17-18

The 6th National Graduate Student Research Conference will be held Oct. 17 and 18 from 8 a.m. to 5:30 p.m. at Natcher Conference Center. The conference will bring 150 advanced graduate students from across the U.S. to campus to share their research and learn about advances being made in the NIH Intramural Research Program. The event also provides an opportunity for NIH investigators to recruit conference participants to join research groups as postdoctoral fellows. Conference attendees were selected from a diverse applicant pool of about 450.

The conference agenda includes keynote and scientific talks and poster sessions. For more information visit https://www.training.nih.gov/events/recurring/nih-national_graduate_student_research_festival.

Community College Day 2011 Set

The NIH Office of Intramural Training & Education will hold Community College Day on Tuesday, Oct. 11 from 8 a.m. to 4 p.m. at Natcher Conference Center. Community college students and faculty will visit NIH to learn about careers and training opportunities here. For registration and details, visit www.training.nih.gov.

NIH Camera Club Holds Contest

The annual open competition of the NIH Camera Club will take place on Tuesday, Oct. 11 at 7 p.m. at the Classic Residence by Hyatt, 8100 Connecticut Ave., Chevy Chase.

Categories include monochrome prints, color prints, color slides and digital images. Entry fee is $2 per image and individuals may enter up to 3 images in each category. There will be cash prizes for the winning images. Instructions for submission can be found at www.nihcameraclub.com. For more information, contact Jordan Snyder at josnyder@comcast.net.
Dr. Russ B. Altman, a computational biologist at Stanford University, will discuss his work in pharmacogenomics, the study of how human genetic variation impacts drug response, during this year's DeWitt Stetten, Jr. Lecture. The talk, "The Emerging Network of Data for Understanding the Interactions of Genes and Drugs," is part of the NIH Director's Wednesday Afternoon Lecture Series and is sponsored by NIGMS. It will be held on Wednesday, Oct. 12 at 3 p.m. in Masur Auditorium, Bldg. 10.

In 2010, Altman and his research team conducted the first integrated clinical assessment of an individual patient’s whole genome. The analysis revealed genetic variants associated with cardiovascular disease risk and others known to modulate response to drug therapy. Key to the work was the NIH Pharmacogenomics Knowledge Base, an online database about gene-drug-disease relationships that Altman directs.

In another recent study, Altman's team mined adverse event reporting data and electronic medical records and found that two commonly prescribed drugs, the antidepressant Paxil and the cholesterol-lowering medication Pravachol, can have a potentially dangerous side effect when taken together. In addition, he has developed a computer algorithm to enhance pharmacogenomics knowledge by extracting commonly occurring relationships between key entities like genes, drugs and phenotypes from 17 million scientific abstracts. Altman’s work also focuses on the analysis of functional sites within macromolecules to understand drug actions, interactions and adverse events.

Altman is chair of the department of bioengineering at Stanford. He is also a professor in the university’s departments of medicine and genetics and holds a courtesy appointment in the department of computer science. Altman earned an A.B. in biochemistry and molecular biology from Harvard College in 1983, a Ph.D. in medical information sciences from Stanford in 1989 and an M.D. from Stanford in 1990.

Altman’s honors include a Presidential Early Career Award for Scientists and Engineers and election to the Institute of Medicine of the National Academies. He leads the NIH-funded National Center for Biomedical Computation at Stanford (Simbios), which focuses on physics-based simulation of biological structures.

For more information or for reasonable accommodation at the lecture, contact Sarah Herrmann at sarah.herrmann@nih.gov or (301) 594-6747.

Tay Perry (l) and Jay Dowsett installed the scale model of a Hawaiian voyaging canoe in the NLM exhibition space as part of the upcoming Native Voices exhibition. They are with the Friends of Hokule’a & Hawai’iloa, a non-profit organization dedicated to the perpetuation of Hawaiian canoe-building traditions and values through the preservation and development of canoe-building resources.

**TAY SPENCER**

**NLM Opens ‘Native Voices’ Exhibition**

Native Voices: Native Peoples’ Concepts of Health and Illness, a free exhibition, opens to the public at the National Library of Medicine on Oct. 6. Native Voices examines Native concepts of health and illness and shows how those concepts are closely tied to community, spirit and the land.

As the exhibition title suggests, visitors will experience the views, vision and diversity of Native people through their own words and expression—be it a heartfelt interview accessed through the exhibition’s interactive media or stories carved into a special healing totem, which has made a cross-country trip and been blessed by tribal groups before being installed on the NLM grounds as part of the exhibition.

"Native Voices honors the Native tradition of oral history and builds a unique collection of information that will enhance the understanding of healing and medicine, and the health issues affecting Native communities," said NLM director Dr. Donald Lindberg. "This is in keeping with the library’s mission of collecting, organizing and preserving medical information to improve public health. We’re excited to open this exhibition and to do it during the year the library celebrates its 175th anniversary."
Since 1953, the Clinical Center has provided innovative therapy and high-quality patient care, treated rare and severe diseases and produced outstanding physician-scientists whose collective work has set a standard of excellence in biomedical research,” read the award citation. “It has spearheaded major advances in a wide array of medical arenas, established an example for academic institutions across the world, and trained thousands of investigators, many of whom now lead those establishments.”

The Clinical Center, the world’s largest clinical research hospital, “exists to help scientists who are clinicians rapidly translate promising discoveries in the laboratory into new and better ways to treat and prevent disease,” said NIH director Dr. Francis Collins, adding that its research portfolio “has resulted in remarkable medical advances.”

Those medical milestones include development of chemotherapy for cancer; the first use of an immunotoxin to treat a malignancy (hairy cell leukemia); identification of the genes that cause kidney cancer, leading to the development of 6 new, targeted treatments for advanced kidney cancer; the demonstration that lithium helps depression; the first gene therapy; the first treatment of AIDS (with AZT); and the development of tests to detect AIDS/HIV and hepatitis viruses in blood, which led to a safer blood supply.

“The Clinical Center’s work has always depended on patients and healthy individuals from around the world who volunteer for clinical research here,” said CC director Dr. John Gallin, who has led the hospital since May 1994. “Our patients include those with rare diseases, common disorders and undiagnosed conditions. There are about 1,500 clinical research studies under way today and the patients and healthy volunteers who participate in them are true partners in research.”

Former grantees Hartl, of the Max Planck Institute of Biochemistry, and Horwich, of Yale School of Medicine, identified chaperonin, which shifted the paradigm of how proteins fold.

Much of the work in a cell is accomplished by proteins. But for these molecules to do their jobs, they must fold into the correct 3-dimensional shapes. Horwich and Hartl showed that proteins need help to form their proper 3-dimensional structures. They identified a protein machine, which they dubbed chaperonin, that is instrumental in aiding protein folding and preventing proteins from aggregating.

They also revealed a dynamic view of the stepwise process by which chaperonin draws in and sequesters unfolded proteins and ultimately ejects them 10 seconds later, fully formed and functional.

Northern Ireland’s Health Minister Visits

Health Minister Edwin Poots (second from r) of Northern Ireland visited NIH recently, taking a tour of the Clinical Research Center and the Children’s Inn. On hand for the visit were (from l) Julia A. Hykes, communications/production manager at the inn; Isabel V. Otero, program director for the All-Ireland NCI Cancer Consortium; Randy Schools, R&W president; and Dr. Paula Hyland, research fellow at the National Cancer Institute.
Dr. Robert J. Greenberg (l), Second Sight’s president and CEO, displays honor from the U.S. patent office with Barbara Campbell, who benefits from his company’s device (shown at right).

Funded by NEI, Makers of Bionic Eye Receive 8 Millionth Patent
By Dustin Hays

The Argus II retinal prosthesis, developed by Second Sight, Inc., with funding from the National Eye Institute, was recently recognized in honor of being the 8 millionth patent issued by the United States Patent and Trademark Office (USPTO). The Argus II is a device that restores limited sight to the blind.

“I’d like to thank Second Sight for inspiring us all to keep dreaming, testing, experimenting and patenting—and for demonstrating that patented American ingenuity will continue to drive our nation’s growth,” said David J. Kappos, USPTO director, at the celebration that took place at the original U.S. patent office building, once known as the “temple of invention” and now occupied by the Smithsonian American Art Museum.

The Argus II consists of a miniature video camera, inconspicuously mounted on a pair of sunglasses. A belt-worn processing unit converts images captured by the camera into electrical impulses that are wirelessly transmitted to a 60-electrode grid implanted in the eye. Users perceive the electrical impulses as patterns of light that produce visual information.

“I feel like I won my own personal lottery,” said Argus II user Barbara Campbell, recounting the invitation to participate in a clinical trial of the device. She has been using the device to get around Manhattan, where she works as a rehabilitation counselor at the New York State Office of Children and Family Services.

Campbell has a genetic disease called retinitis pigmentosa (RP), which causes gradual decline of vision due to death of photoreceptor cells.

She has been wearing the Argus II device for about 3 years. She said the device greatly increases her mobility and safety, allowing her to see crosswalk lines and find her bus stop. Campbell told the audience she can even read large print.

“Second Sight’s retinal prosthesis is giving improved mobility and independence to people who are blind from RP and have no other options for restoring any of their vision,” said Dr. Paul Sieving, NEI director. “It is encouraging to see this highly innovative technology being used to help people with their activities of daily living.”

“One important component of our ability to accomplish this goal has been direct government support from the National Eye Institute. This would not have been possible without government grant support,” said Dr. Robert J. Greenberg, Second Sight’s president and CEO. His company now holds 90 patents related to sight restoration. Since 2001, NEI has contributed more than $26 million to Second Sight for development of the Argus II and associated technologies. The investment has not only rendered the world a device to help the blind see but also has pushed the field of bioengineering by providing novel materials and techniques for interfacing prosthetic devices with the central nervous system.

The Argus II was approved for sale in Europe earlier this year and is expected to be approved soon by the FDA. The device will sell for about $100,000. Second Sight is currently developing a next-generation 256-electrode retinal grid that should give users much greater resolution.

NIH Director Dr. Francis Collins administers the oath of office to new NIDCR director Dr. Martha Somerman.

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NIDCR Director Somerman Sworn In
On Aug. 31, Dr. Martha Somerman took the oath of office as the eighth director of the National Institute of Dental and Craniofacial Research in a ceremony officiated by NIH director Dr. Francis Collins. Also attending was Dr. Lawrence Tabak, NIH principal deputy director and former director of NIDCR.

A widely respected periodontist and researcher, Somerman most recently served as dean of the University of Washington School of Dentistry in Seattle. She held that post since 2002, while also teaching in the school’s periodontics and oral biology departments and serving on the medical staffs of the Seattle Cancer Care Alliance and the University of Washington Medical Center.

Somerman’s research on development and regeneration of oral tissues has been recognized with numerous honors and awards. She will continue her research on oral connective tissue biology with a lab in the National Institute of Arthritis and Musculoskeletal and Skin Diseases. No stranger to NIH’s intramural program, Somerman was a staff fellow in the National Institute of Dental Research (which has since added Craniofacial to its name) in the early 1980s.
Above, from l: Arriving at NIH, Cardin is greeted by Collins and Pat White (r), director of the NIH Office of Legislative Policy and Analysis.

Cardin talks about concerns with institute and center directors in Bldg. 1’s Wilson Hall, before addressing a town hall audience (below) in Masur Auditorium in the Clinical Center.

PHOTOS: ERNIE BRANSON

media. You do this because you’re making a huge difference for the people in our community and the people of our country and world. I’m here to say thank you as a grateful member of Congress. The work you do is so critically important...You do your work the best in the world.”

‘Not an Easy Time’

At the outset, NIH director Dr. Francis Collins put the meeting in perspective. Without ever using the word morale, he acknowledged that workforce spirit has been on his mind.

“This is not an easy time to be in federal service,” he said, referring to recent media reports about “comments that downplay the importance” of government service. “Clearly employees here have suffered through a lot in the course of the last year in terms of unpredictables—freezes on pay, threats of shutdowns literally averted only at the eleventh hour back in April, concerns about a government default that might have shut us down again in August and constraints on performance awards. All of those are making this a particularly challenging time to be at NIH.

“And on top of that, of course,” he continued, “is the constraint in the resources that you would like to have available to move the medical research agenda forward, which we all recognize have been under considerable strain for the last 8 years since the NIH budget flattened. Now we see it actually diminishing in real dollars.”

‘Sense of Calling’

In such a climate, Collins said, it’s gratifying that employees here always seem to recognize a purpose beyond that of the average workforce.

“I understand that people who work at NIH have a mission that is of critical importance to our nation and that all of you who work here feel that sense of calling to do something to advance the cause of human health, and you do so extremely well,” he said. “Your dedication in the face of many challenges comes across to me every day.
“It is, despite all [the recent challenges], remarkable to me to see so much enthusiasm here for the science that you do and for the advances that you are able to make and catalyze,” he continued. “It is for me as your director a great privilege to serve here in this circumstance with such a dedicated team of individuals who see this mission as so compelling that none of these other things can get in the way.”

‘Don’t Pick on the Federal Worker’

Introduced by Collins as a long-time “champion for increased funding for medical research” and “major champion of biotechnology,” Cardin discussed the current political environment frankly.

“You’re under attack in Washington today—there’s no question about it,” he said. Then, drawing rousing applause from the audience, he added, “[But] the federal workforce did not cause our budget problems.”

He offered a brief history lesson about the nation’s financial troubles, recalling that 11 years ago, the U.S. had a budget surplus and was worried about retiring all of its public debt too early.

“[Now] we have a deficit problem that has to be managed,” he said. “[However], our federal workforce has already made the sacrifice—pay freezes. I thought that was wrong, by the way.”

Cardin warned his fellow policymakers and legislators, “Don’t pick on the federal worker.” Instead, he said, the nation needs to adopt a balanced approach to fixing its money woes.

“The very best remedy would be to create more jobs,” he noted. “The work you do here creates jobs. The work you do here energizes the private sector that creates many, many jobs related to the science done at NIH. You are a growth engine for our nation…Innovation starts at NIH.”

**NIH Work Has Every Day Impact**

During the Q&A period, Cardin addressed topics ranging from transparency of deliberations by the congressional supercommittee on the deficit to U.S. involvement in Libya, from potential consequences of sequestration (an automatic budget-cutting measure) to medical school loan repayment programs.

In response to a question from Collins on how NIH can communicate better with decisionmakers and citizens in general, Cardin said, “For some reason the public doesn’t understand that they’re impacted every day by the work that’s done here. If they did, I think they’d be much more outraged when the House of Representatives passes a budget that cuts your work by 5 percent…The work you do here the private sector can’t do.”

In a final statement, Cardin once again pledged his heartfelt support for NIH.

“I’m so impressed when I visit with the institutes and talk to the people who are working here and the type of work you’re doing,” he concluded. “You really are our heroes and it is an honor to represent you.”

NIH’ers can find the entire town meeting online under Past Events at http://videocast.nih.gov/.
First Annual Safety Day Held on Campus
By Erin Fults

Standing before a packed Natcher Bldg. auditorium, Dr. Michael Gottesman, NIH deputy director for intramural research, welcomed audience members to the first annual NIH Safety Day. NIH principal deputy director Dr. Lawrence Tabak was next on stage, noting that the motto for the day, “Safe science and good science go hand-in-hand,” should serve as a reminder that in order to ensure the high quality and integrity of NIH scientists’ work, a safe and reliable workplace must be maintained.

“Today further underscores the importance of safety at home and at work. By bringing us together in creative ways, an annual safety day will lead us all in making safety a habit every day,” he said.

Safety and health chairpersons and committee members from the institutes and centers were brought to the stage in recognition of their efforts as Tabak reminded listeners that safety at NIH requires everyone’s efforts and involvement.

Guest speaker James Welch, executive director of the Elizabeth R. Griffin Research Foundation, presented a somber tale illustrating the tragic consequences that can result from unsafe lab protocol. When 22-year-old Elizabeth Griffin, a research assistant at a primate research facility, was hit in the eye with a drop of fluid from a macaque infected with herpes B virus, prevention procedures were inadequate and she received deficient treatment following exposure. She passed away 2 months later, becoming the first known death due to ocular exposure to macaque B virus.

Welch told the crowd that simply knowing is not enough; individuals must put safe practices into action every day. He heralded NIH as a particularly important role model in these efforts. “NIH is a pinnacle research institute in the world and the most important thing for scientific research right now is that you demonstrate a culture of responsibility,” he said.

Welch highlighted the importance of safety training and practices in the workplace, emphasizing the impact of individuals. “If everyone in this room had on eye protection, you wouldn’t come in without it, would you?” he mused. “Workers are the key to safety, not just policies.” He also encouraged regular training rather than “random acts of training” in order to fully instill the message of safety in workers.

“In a nation and a world thirsting for health, you and everything you do here represents hope,” Welch concluded.

Following the opening ceremony, attendees browsed dozens of booths and exhibits featuring pamphlets, pens and packets emblazoned with safety tips and emergency hotlines. A table displaying cases of live roaches and black widow spiders offered tips for bed bug protection and treatments. An OSHA booth had an array of shiny “quick cards” with facts covering everything from pandemic flu to demolition safety. The Red Cross offered disaster safety checklists, including one for pets.

Several booths offered demonstrations on noise control, allowing attendees to plug their music players into a mannequin and test the noise levels (hint: you should probably turn down the volume). Continued exposure to noise 85 decibels or louder over time will harm hearing, but lawn-mowers, jackhammers and music concerts all clock in at 90 decibels and higher.
All facets of safety were covered: Identify theft prevention on the Internet. Food safety in the home. Distracted driving on the road. Stress management in the workplace. Terrorism in the nation. And much more.

NIH’s police and fire departments were also on hand to give demonstrations and answer questions. Sasha, a dog from the K-9 unit, was a particular hit, delighting onlookers with her ability to sniff out explosives.

Breakout training sessions addressed identity theft, cyber safety and ergonomics, bringing safety, health and security together for an all-encompassing Safety Day. The NIH Police held a session on how to respond to and survive a workplace shooting. The statistics may seem shocking, with one employee killed and 25 injured in violent assaults by current or former coworkers in the U.S. each week, but reveal the importance of being prepared and recognizing indicators of potential violence.

Attendees enjoyed barbeque and the CIT Band on the sunny lawn outside of Bldg. 45, where they could also try out a rock climbing wall or get a close-up look at a fire truck before returning to work to continue putting safety into practice.

Keynote speaker James Welch, executive director of the Elizabeth R. Griffin Research Foundation, offered a cautionary tale on lab accidents.

Above:
Lawrence Aaron of the Office of Research Facilities seems relieved to have survived the sudden deceleration offered by the “Seatbelt Convincer.”

Left, top:
Dr. Margaret A. McDowell (c), a nutritionist in the Division of Nutrition Research Coordination at NIH, and her colleague Rachel Fisher, a DNRC program analyst, greet a visitor to their table at Safety Day.

Left, bottom:
Sasha, a bomb-sniffing member of the NIH Police K-9 corps, performed for an appreciative crowd.

Dr. Michael Donovan, R&W fitness and wellness director, and Diana Echenique, an R&W volunteer, staff a table offering information on the NIH Health & Wellness Expo.

The CIT Band performs for the Safety Day crowd, including youngsters from the NIH preschool program.

The band also invited employees to join them, karaoke style.

PHOTO: PETER RICE
Above: “We can’t afford not to act,” Knaul exhorted her audience, emphasizing the total global economic costs of cancer death, which reach as high as $943 billion each year.

PHOTOS: ERNIE BRANSON

CANCER DIVIDE
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about some of these misconceptions concerning cancer and the poor and argued that prevention and treatment of cancers in developing nations should be a global health priority. Knaul is director of the Harvard Global Equity Initiative and the secretariat to the Global Task Force on Expanded Access to Cancer Care and Control in Developing Countries. Since 2007, she has also endured 16 rounds of chemotherapy and 10 surgeries to treat her stage 2 breast cancer.

Inspired by her experiences, Knaul founded “Cáncer de Mama: Tómatelo a Pecho,” or “Breast Cancer: Take it to Heart” (literally, “take it to breast”). The non-profit organization promotes research, advocacy, awareness and early detection initiatives for breast cancer throughout Latin America, whose poor women bear a great burden of this disease.

The conference was organized by the Fogarty International Center and NCI and attracted 500 attendees from diverse fields including public health, engineering and private industry. It focused on low-cost diagnostic technologies that have the potential for narrowing global disparities in treatable cancers.

“Harnessing technologies today, combined with communication and information,” said Knaul, “will give local physicians and professional health providers the ability to deal with cancer.”

Conference presenters discussed and demonstrated a number of innovative, low-cost and portable technologies. These included a specially fitted syringe that can biopsy and diagnose Kaposi’s sarcoma and small, paper-based tests that can be read accurately by iPhone. Such easy-to-use devices would be particularly useful in nations where cancer specialists, not to mention doctors, are rare or non-existent.

Knaul emphasized that not only is cancer a major global health concern, but also many cancers can be prevented or cured in a way that is cost-effective and compatible with other public health initiatives. For example, the mortality rate from cervical cancer in Mexico has plummeted in the last 15 years due to campaigns to promote Pap smears and to educate women about the disease.

“No one would have believed this was possible,” said Knaul. She predicted that as the cervical cancer vaccine becomes more common, this preventable malignancy will become “ghettoized” to poor women with little health care access.

“We can’t afford not to act,” Knaul exhorted her audience, emphasizing the total global economic costs of cancer death, which reach as high as $943 billion each year.

Knaul told the story of a woman named Juanita, a victim of missed opportunities for cancer control. Despite having an obvious breast tumor—and cancer treatment coverage through the Mexican health care system—Juanita did not seek treatment until the cancer had grown so much that she could not use her arm properly.

Juanita inspired Tómatelo a Pecho to lobby for the addition of breast cancer education into the national women’s anti-poverty program. This is an example of a “diagonal strategy,” said Knaul, that grafts cancer awareness and education onto existing anti-poverty, social welfare programs without additional cost. This strategy can improve cancer outcomes through simple interventions that do not require major investment.

Tómatelo a Pecho is now also working with state health ministries in a project funded and led by Mexico’s national health care coverage program to train health promoters and primary care providers in the basics of cancer prevention, detection and care. The hope is that tumors like Juanita’s can be caught earlier and treated more successfully.

“In countries where so many women with breast cancer are being detected at such late stages, we have learned that community health workers can play a key role in ‘downstaging,’” or finding tumors sooner, “even before a woman seeks care from a doctor or a nurse,” said Knaul. “This is not rocket science. It is about sharing basic knowledge, battling cancer and machismo to encourage women to seek care earlier.”

Good surprises can come out of bad events, said Knaul, recalling how butterflies flocked to the brightly colored hats she wore during chemotherapy.

“What this is all about,” she concluded, “is being an optimist and an optimalist—making full use of all the different technologies, information and educational possibilities we have at hand” to improve cancer prevention, detection and treatment around the world. ☼
New Genes Found that Control Blood Pressure

In one of the largest genomics studies ever, an international research consortium that includes NIH has identified 29 genetic variations across 28 regions of the human genome that influence blood pressure. This unprecedented effort brought together more than 230 researchers across 6 continents and scanned the genomes of more than 200,000 people. Results appeared in the Sept. 11 Nature.

Sixteen of the 29 variations identified in the study were previously unrecognized. Six of the new variations were found in genes already suspected of regulating blood pressure; the other 10, which were found in unexpected locations, provide new clues into how blood pressure is regulated. Individually, the genetic variations increased the risk of hypertension (high blood pressure) by only a tiny amount. For people with multiple variants, however, the effects were more significant.

The primary group of 200,000 participants was of European background and included subjects selected from several NHLBI study populations including the Framingham Heart Study. The research consortium then followed up its analysis on 70,000 people of East Asian, South Asian and African ancestry. Researchers found the genetic risk score and several of the individual variants were associated with increased blood pressure in these ethnic groups as well.

Stroke Prevention Trial Has Immediate Implications for Clinical Practice

Patients at a high risk for a second stroke who received intensive medical treatment had fewer strokes and deaths than patients who received a brain stent in addition to the medical treatment, a large nationwide clinical trial has shown. Investigators published the results in the online edition of the New England Journal of Medicine. NINDS funded the trial. The medical regimen included daily blood-thinning medications and aggressive control of blood pressure and cholesterol.

New enrollment in the study was stopped in April because early data showed significantly more strokes and deaths occurred among the stented patients at the 30-day mark compared to the group who received the medical management alone.

In addition to the intensive medical program, half of the patients in the study received an intervention of a self-expanding stent that widens a major artery in the brain and facilitates blood flow. One possible explanation for the higher stroke rate in the stented group is that patients who have had recent stroke symptoms sometimes have unstable plaque in their arteries that the stent could have dislodged, the study authors suggest.

Two Doses of HPV Vaccine May Be as Protective as Full Course

Two doses of the human papillomavirus (HPV) vaccine Cervarix were as effective as the current standard 3-dose regimen after 4 years of follow-up, according to NCI researchers and their colleagues. Results of the study, based on data from a community-based clinical trial of Cervarix in Costa Rica, appeared online Sept. 9 in the Journal of the National Cancer Institute.

Worldwide, approximately 500,000 new cases of cervical cancer are diagnosed every year and about 250,000 women die from the disease. An overwhelming majority of these new cases and deaths occur in low-resource countries. Virtually all cases of cervical cancer are caused by persistent infection with HPV. Cervarix is one of two vaccines approved by the Food and Drug Administration to protect against persistent infection with two carcinogenic HPV types, 16 and 18, which together account for 70 percent of all cervical cancer cases. The vaccine is intended to be administered in 3 doses given over the course of 6 months. To date, investigators have observed up to 8 years of protection from persistent HPV infection with the vaccine. Studies are ongoing to determine the maximum length of protection.

Violence During Pregnancy Linked to Reduced Birth Weight

Pregnant women who are assaulted by an intimate partner are at increased risk of giving birth to infants of reduced weight, according to a population-level analysis of domestic violence supported by NICHD. Study findings were published online in the Journal of Human Resources.

The study analyzed medical records of more than 5 million pregnant women in California over a 10-year period. Although the results showed a pattern of low-weight births among women who experienced an assault, the study was not designed to establish cause and effect and so could not prove that violence caused the reduced birth weights. Similarly, the study was not designed to provide a biological explanation for how violence against an expectant mother might cause her child to be of lower birth weight.

Infants born to women who were hospitalized for injuries received from an assault during their pregnancies weighed, on average, 163 grams, or one-third pound, less than did infants born to women who were not hospitalized, the study found. Assaults in the first trimester were associated with the largest decrease in birth weight.

Infants born weighing less than 2,500 grams, or 5.5 pounds, are considered low birth weight and have an increased risk of death or of developing several health and developmental disorders. — compiled by Carla Garnett
ORWH’s First Permanent Director Pinn Retires
By Jenny Haliski

Women who can now stand on equal footing with their male colleagues—at NIH, in the extramural community and throughout the health sciences in the U.S.—have women like Dr. Vivian W. Pinn, first permanent director of the Office of Research on Women’s Health, to thank.

To name just a few of her firsts: Pinn was the only African American and the only woman to graduate from the University of Virginia School of Medicine in 1967. Almost 40 years later in 2005 she became the first African-American woman to speak at UVa.’s commencement. She was also the first African-American woman to chair an academic pathology department in the United States, at Howard University College of Medicine.

A native of Lynchburg, Va., Pinn has always reached out to mentor others—a unifying thread throughout her career. After graduating from Wellesley College and UVa., she completed her residency in pathology at Massachusetts General Hospital in 1970 while also serving as a teaching fellow at Harvard Medical School. In 1970, she joined the faculty of Tufts University School of Medicine as assistant dean for student affairs so she could be a mentor for all students—female or male, minority or not. When she lost her mother as an undergraduate, she recognized the need for a mentor’s support and guidance. Thanks to mentoring, most of the school’s medical students flourished despite their doubts.

After serving as professor and chair of Howard University College of Medicine’s department of pathology since 1982, Pinn in 1991 was appointed to lead ORWH. In 1994, she also became NIH associate director for research on women’s health. Her to-do list at the time: implement inclusion policies for women and minorities in clinical trials, support science-driven sex differences research and collaborate with the ICs to bring true trans-NIH ownership to women’s health research and career development programs. Under her leadership for nearly 20 years and with NIH support, ORWH succeeded on all fronts.

For the first 10 years, ORWH participated in the ICs’ requests for applications or provided supplements to existing grants, but had yet to issue its own. Still, those funding supplements had quite a reach and counted many notable scientists among their grantees—including, in 1992, to a researcher at the University of Michigan by the name of Dr. Francis Collins for “Genomic Technology and Genetic Disease.”

Collins, now NIH director, has thanked Pinn “for her strong leadership in the effort to improve the health of women and minority populations and to increase career opportunities for women and minorities in science and medicine. Appointed as the first permanent director of ORWH, she blazed many new trails in shaping the office.”

The launch of the Building Interdisciplinary Careers in Women’s Health (BIRCWH) program in 2000 and Specialized Centers of Research on Sex and Gender Factors Affecting Women’s Health in 2001 began a legacy of ORWH-directed initiatives. Pinn says she’s extremely proud of how these programs have grown from a vision to a mechanism to support a high caliber of researchers, both male and female.

“Everywhere I travel, several investigators in the audience were or are BIRCWH scholars and tell me how much the program contributed to their current success,” she said. She says she’ll...
careers, too few women advancing in science and careers. She tackled the challenges of too few women in clinical trials, too few women in science. “She sent a signal to other organizations,” said Sen, Olympia Snowe (l) was one of several senators and representatives who received a glass bowl from Pinn at the time of ORWH’s 20th anniversary celebration, to thank them for the role they played in starting and supporting ORWH.

Most recently, Pinn spearheaded a series of nationwide scientific meetings and public hearings to reexamine priorities for women’s health research and inform ORWH’s new strategic plan—all in time for ORWH’s 20th anniversary in September 2010. “Dr. Pinn understands that priorities won’t set themselves; it takes a passionate, intelligent, experienced and insightful individual, with an incredible amount of support, to gather the right folks and figure out what we still don’t know but need to know,” said NIH deputy director for science, outreach and policy Dr. Kathy Hudson.

The NIH working group on women in biomedical careers, which Pinn co-chaired with Collins, “sends a signal to other organizations,” said Pinn, “that this is not just another committee that talks, but takes action on strategies that will make a difference.” To help women of color navigate the NIH grants process and receive career development advice, the working group is launching the Women of Color Research Network.

“Dr. Pinn has had a major impact on women’s health and women’s careers globally,” said Dr. Margery Gass, executive director of the North American Menopause Society, who worked with Pinn as a principal investigator on the Women’s Health Initiative and also for the society’s mentoring research program. “She tackled the challenges of too few women in clinical trials, too few women in science careers, too few women advancing in science careers and the lack of funding to understand and treat gender health differences. She spoke out on these issues around the world and implemented programs to improve the situation.”

Pinn is a fellow of the American Academy of Arts and Sciences and was elected to the Institute of Medicine in 1995. The Foundation for Gender Specific Medicine honored her in May 2011 with its Athena Award, which recognizes individuals who have contributed significantly to the understanding of human health and the pathophysiology of disease. She also received the Tufts University School of Medicine Dean’s Medal. She has received 11 honorary degrees of laws and science since 1992 and was the second woman to be named president of the National Medical Association in 1989.

Her legacy also includes the UVa. School of Medicine’s Vivian W. Pinn Distinguished Lecture in Health Disparities, the Vivian Pinn College of UVa. (one of four advisory colleges for medical students), Tufts University’s Vivian W. Pinn Office of Student Affairs and a Tufts Medical School scholarship in her name for disadvantaged students.

After leaving NIH, Pinn will spend “more time energizing” medical students at UVa. and Tufts. She says she’ll miss NIH’s rich intellectual environment, as well as the friendship and supportive relationships that the agency fosters. “Often I have sat in awe of the people around me at NIH, the research they’re doing, the influence each of us has individually and as part of the global scientific community,” she said. “I was just amazed to be here and be part of this.”

Former NIDDK Chemist Jerina Mourned

Dr. Donald M. Jerina, 71, formerly a senior investigator at the National Institute of Diabetes and Digestive and Kidney Diseases, died May 22 from the consequences of a bacterial infection.

Jerina was an organic chemist and biochemist who began working at NIH in 1969 and was chief of the oxidation mechanisms section until 2006. His government career included appointment to the Senior Executive Service in 1983.

He was awarded the Hillebrand Prize from the American Chemical Society in 1979, the 1982 B.B. Brodie Award for Research in Drug Metabolism from the American Society for Pharmacology and Experimental Therapeutics and the Polycyclic Aromatic Compound Research Award of the International Society for Polycyclic Aromatic Compounds in 1999. His highly cited research publications were mentioned in an article in The Scientist in 1990 that identified Jerina as a potential Nobel Prize contender. He published more than 500 scientific papers.

Jerina’s early career at NIH was highlighted by his mechanistic elucidation (along with NIH colleagues Gordon Guroff and John W. Daly) of the eponymous “NIH shift,” in which a hydrogen atom migrates around an aromatic ring in the biological synthesis of certain neurotransmitters. The intermediate in this process is a 3-membered epoxide ring that opens to permit migration of a hydrogen atom from one carbon atom to an adjacent one. This discovery led to a lifelong interest in microsomal oxidations and the role of epoxides as reactive intermediates in biological processes, most notably DNA damage and carcinogenesis.

As an international leader in the field of chemical carcinogenesis, Jerina pioneered research on cancer-causing polycyclic aromatic hydrocarbons that are widespread environmental contaminants, most notably in tobacco smoke, automobile exhaust and the charred portions of grilled foods.

Jerina is survived by a daughter, Julianne Marcus, and a son, Derek A. Jerina.
Ombudsman Office Gains Staff, Projects

There are three new ombudsmen and several new projects under way at the Office of the Ombudsman/Center for Cooperative Resolution (OO/CCR), a unique resource for the NIH community that provides confidential, neutral assistance to address work-related concerns and conflicts. Established in 1997, the office has helped thousands of employees and managers, as well as many work groups, successfully navigate workplace, lab and scientific issues.

David Michael, deputy ombudsman, brings many years of experience in conflict practice (mediation, group facilitation, coaching and consensus-building), as well as training, program design, strategic planning and performance management. Most recently, while at the Federal Mediation and Conciliation Service, he provided facilitation, mediation, coaching and training for federal agencies. Earlier he led court-based and non-profit alternative dispute resolution (ADR) organizations.

Linda Myers, associate ombudsman, has an extensive mediation background, including work in equal employment opportunity cases, prohibited personnel practices complaints (including whistleblower reprisal), labor-management disputes and organizational conflict resolution. Prior to joining the office, she served as deputy director of the U.S. Army ADR Program in the Office of the Army General Counsel.

Lisa Witzler, associate ombudsman, received a master’s degree in dispute resolution from the University of Massachusetts and is working toward her Ph.D. in conflict analysis and resolution at Nova Southeastern University.

Before joining the office, she worked at the Program on Negotiation at Harvard Law School. She is a trained mediator and facilitator interested in group dynamics, communication, dispute resolution design and conflict coaching.

These new staff join OO/CCR director Dr. Howard Gadlin and associate ombudsmen Linda M. Brothers, Dr. Kathleen Moore and Samantha Levine-Finley.

Gadlin has been an ombudsman and director of the office since 1999. He formerly served as an ombudsman at UCLA and the University of Massachusetts, Amherst. He is past president of the University and College Ombuds Association and the Ombudsman Association. He currently chairs the federal interagency alternative dispute resolution working group. He is the author of, among other writings, *Bargaining in the Shadow of Management: Integrated Conflict Management Systems; Conflict, Cultural Differences, and the Culture of Racism; and Mediating Sexual Harassment.*

Brothers has been an associate ombudsman at NIH since 2006. Prior to coming to NIH, she was director of equal opportunity and ombuds-person at Wellesley College, where she established its Ombuds Office. Her areas of special focus include perceived difference and racial/intercultural conflict, systems change and role boundary conflation. She has designed numerous systemic interventions and is the author of many training and educational programs addressing interpersonal and institutional dispute resolution. She is a past board member of the New England Association for Conflict Resolution.

Moore has been an associate ombudsman at NIH for 10 years. Prior to that, she spent more than 10 years as an Employee Assistance Program provider at NIH and 2 years as an employee relations specialist. She earned a Ph.D. in human and organizational development from George Mason University in 2000. Her varied background provides a basis for analyzing conflict from several vantage points, including a psychological grounding of personal dynamics; an institutional knowledge of administrative practices; and experience in resolving conflict in a neutral setting with a focus on personal and organizational interests.

Levine-Finley has been an associate ombudsman at NIH since 2008. A former print journalist, she earned a master’s degree in conflict analysis and resolution from George Mason University and has interests in interpersonal dynamics, the psychological aspects of conflict and escalation and coaching. She has conducted training on communication in conflict, negotiation and managing emotions. She is a leader in the International Ombudsman Association and co-authored a recent article on the history of the organizational ombudsman profession for *Conflict Resolution Quarterly.*

In addition to adding new staff, the office...
recently launched a new web site—http://ombudsman.nih.gov. It will provide the NIH community with helpful resources and in-depth information. New features on the site include pages tailored to scientists, administrators, support staff and trainees on the wide variety of services offered by the office and links to tools to assist personnel in managing workplace and lab concerns.

The OO/CCR has also completed a Biennial Report covering 2009 and 2010 that highlights accomplishments over the past 2 years. The report also references the recent evaluation of the office that was conducted by the Harvard Negotiation and Mediation Clinical Program. The office is implementing recommendations from the evaluation to enhance its services. The Biennial Report is available at http://ombudsman.nih.gov/aboutReport.html.

If you or a colleague could benefit from a confidential and impartial perspective on a workplace concern or question, consider contacting the office, which is located in Bldg. 31, Rm. 2B63. The office’s confidential main number is (301) 594-7231.

White House Announces New NCAB Members

The White House recently announced the appointment of five new members to the National Cancer Advisory Board and the designation of the NCAB chair, Dr. Bruce Chabner.

Dr. Kevin J. Cullen is director of the Marlene and Stewart Greenebaum Cancer Center at the University of Maryland and a professor of medicine. Under his leadership, the center became an NCI Designated Cancer Center in 2008.

Dr. Olufunmilayo F. Olopade is the Walter L. Palmer distinguished service professor of medicine & human genetics, associate dean for global health and director of the Center for Clinical Cancer Genetics at the University of Chicago Pritzker School of Medicine. She is an authority on cancer risk assessment, prevention and individualized treatment based on risk factors and quality of life.

Dr. Jonathan M. Samet is professor and Flora L. Thornton chair of the department of preventive medicine at the Keck School of Medicine of the University of Southern California and director of the USC Institute for Global Health. He has addressed health risks posed by environmental agents, including active and passive smoking, indoor and outdoor air pollution, cancer occurrence among diverse populations and patterns of cancer care.

Dr. William R. Sellers is vice president and global head of oncology for the Novartis Institutes for BioMedical Research, where he oversees small molecule and antibody-based drug discovery efforts in oncology. He has won research funding from a number of organizations including NCI, the Damon-Runyon Cancer Research Foundation and the Prostate Cancer Research Foundation.

NIGMS Welcomes Janes, Lees

Evolutionary geneticist Dr. Daniel Janes (l) recently joined NIGMS as a program director in the Division of Genetics and Developmental Biology, where he will oversee research grants in the areas of DNA replication, recombination and repair. Before coming to NIGMS, Janes was a research fellow at Harvard University. He earned a B.A. in biology from Boston University and a Ph.D. in zoology from the University of Florida, then did postdoctoral research at Iowa State University.

Dr. Robert “Bob” Lees came to NIGMS as a program director in the Division of Pharmacology, Physiology, and Biological Chemistry, where he will manage grants in the area of synthetic organic chemistry. Prior to joining NIGMS, he was a program director in the Developmental Therapeutics Program, Division of Cancer Treatment and Diagnosis at NCI. Lees earned a B.S. in chemistry from Duke University and a Ph.D. in organic chemistry from Stanford University.
The second annual NIH Health and Wellness Expo took place Sept. 7-8 at Natcher Conference Center.

The first day featured an expert panel discussing “Overweight and Obesity—Public and Scientific Challenges and Perspectives.” Speakers focused on the importance of good nutrition, diet and exercise in healthy weight management.

Afterward, the expo offered a variety of free fitness and workout classes for all ability levels, including Boot Camp, Cardio Kickboxing, Pilates, Urban Line Dancing, Yoga, Isometrics and Zumba.

The second day featured free health screenings in such areas as bone density, blood pressure, cholesterol, flexibility, muscular strength and endurance, mental health and vision.

There were also cooking demonstrations and more than 20 information tables from the institutes, centers and their affiliated groups.

“Make health and wellness a priority in your life as we at NIH take our own best advice,” said Dr. Alfred Johnson, director of the Office of Research Services and NIH’s senior wellness official.

Highlights of the recent Health and Wellness Expo include the Young at Heart Tap Dancers (above and below, l). At right below, golf instructor Kate Stepanek (l) offers golf swing tips to ORS employee Patricia Thomas.

At left above, an expert panel on healthy weight management featured (from l) Dr. Van Hubbard, director, NIDDK Division of Nutrition Research Coordination, Karen Miller Kovach, chief scientific officer at Weight Watchers International, NHLBI nutritionist Janet de Jesus and Clinical Center dietitian Dr. Amber Courville. At right, members of the NIH Tae Kwon Do Club put on an exhibit.