JULY 19, 2013
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The Second Best Thing About Payday

nih record

ABOVE • *She could tell who was going to die by listening to patients breathe while they slept. See story on p. 3*

features

departments

NIH Holds 'Listening Session' for LGBTI Health Issues

By Rich McManus

Advocates and researchers for health issues involving lesbian, gay, bisexual, transgender and intersex (LGBTI) communities had the full attention of NIH leadership on June 27 as NIH hosted a 90-minute "listening session" in Wilson Hall.

NIH director Dr. Francis Collins, principal deputy director Dr. Lawrence Tabak, deputy director for intramural research Dr. Michael Gottesman and NICHD director Dr. Alan Guttmacher took comments and discussed issues with a dozen guests who attended.

The most common refrain heard at the session was the need for LGBTI populations (which includes members of the Native American Two Spirit com-

SEE **LISTENING**, PAGE 6

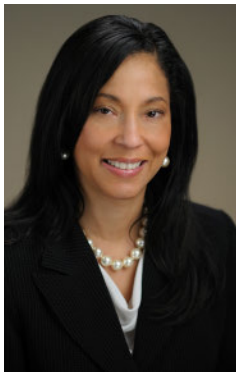
NIH principal deputy director Dr. Lawrence Tabak (second from r) opens session as NIH director Dr. Francis Collins (r) and NICHD director Dr. Alan Guttmacher (l) look on. Not fully visible is Dr. Michael Gottesman, NIH deputy director for intramural research.

'We Have to Be the Catalysts'

Women of Color Research Network Offers 'GPS' for Navigating Science Careers

By Carla Garnett

All roads lead to...science? Perhaps not. There are, however, a great many paths to a satisfying career in science. The challenge is navigating your own best route. Wouldn't it be useful to have some sort of GPS—global positioning system—for finding your way around your profession? Maps revealing hidden detours. A trusted tour guide who's been the same way you're traveling. How about wise advice from locals who know the terrain? That's where the Women of Color Research Network (WoCRn) can help.



Dr. Janine Clayton

Can I Get There from Here?

Hundreds of women scientists at various points in their educa-

SEE **NETWORK**, PAGE 4

Photography as 'Truth' Has Always Been In Dispute, Greenberg Says

By Jeff Kopp

If you're like most people, you carry around a cellphone in your pocket, one that likely has a camera in it, too. Some of these little cameras are so advanced that they can take high-definition photos and print them out for you on the spot. But what about the time when taking photos was new technology—how did the camera work its way into the culture of medicine?

"Things used to be simpler, photographically," said Dr. Stephen Greenberg, who recently spoke in Lister Hill Auditorium in a presentation titled, "Ink and Silver: Medicine, Photography, and the Printed Book, 1845-1880." Greenberg is coordinator of public services in NLM's History of Medicine Division.

Displaying an 1845 double-box camera, which had no shutter and no aperture controls, and then a recent Nikon digital single lens reflex camera, he observed, "We are very far from the original item [camera] here...our technol-

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NIH...Turning Discovery Into Health

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briefs

Summer Poster Day Set, Aug. 8

Summer Poster Day 2013 is scheduled for Thursday, Aug. 8 at the Natcher Conference Center from 9 a.m. to 3 p.m. The event provides an opportunity for summer interns to share the research they have been conducting at NIH and at the same time develop their communication and networking skills. Any summer intern (high school, college, medical/dental or graduate) working in an intramural research group at NIH this summer may present. Investigators, staff scientists and scientific administrators can make a particularly important contribution by visiting posters and engaging their authors in discussion. For more information, visit https://www.training.nih.gov/summer_poster_day.

NIDA's Mobile Site Wins Honor

Wall Street Journal's MarketWatch recently named NIDA's mobile-compatible web site as one of the "10 apps that could save your life." NIDA's site—drugabuse.gov—adapts to fit smartphone and tablet screens, thereby allowing for quick and easy access to scientific facts about drugs and drug addiction. Materials can also be downloaded onto the Kindle, Nook or other E-book.

Electronic Filing of Workers' Comp Claims

The Department of Health and Human Services will now be tracking workers' compensation claims through an electronic filing system. The Employees Compensation Operations & Management Portal (ECOMP) was created by the Department of Labor to ensure timely filing of forms and consistency of information.

The system was implemented at NIH on May 20 and requires all employees who need to file a workers' compensation claim to do so electronically. The employee will also use ECOMP to upload any documentation pertaining to his/her injury, fill out additional forms electronically and instantly view the case file.

More information about ECOMP can be found at https://www.ecomp.dol.gov/#. You may also contact the NIH Workers' Compensation Program for any questions: http://hr.od.nih.gov/benefits/pay/workerscomp/default.htm, email wcp@mail.nih.gov or phone (301) 496-2404.

Nominees Sought for Safety Award

The NIH "Mission First, Safety Always" Award, presented by the Office of Research Services, Division of Occupational Health and Safety, showcases personnel who have demonstrated leadership, innovation and involvement in their organization's safety culture and promoted safety in the workplace.

Nominations can be submitted through the DOHS web site listed under "Hot Topics" at www.ors.od.nih.gov/sr/dohs.

Nominate a colleague who has demonstrated safety leadership, with practical examples in two or more of the following areas: leadership attributes that set the nominee apart from his or her peers; starting and/or leading a safety initiative; engaging peers and transforming the safety culture of the organization; promoting safety as an important part of your program; working to correct unsafe or unhealthful workplace conditions or hazards.

Nominations are open until Aug. 2. If you have questions, email ORSSafetyDay@mail.nih.gov or send written questions to Bldg. 13, Rm. 3K04.

NIDA Employees Offer Gifts to Inn

The NIDA work life committee recently sponsored a collection for the Children's Inn at NIH, a residential home away from home for sick children and their families. NIDA headquarters and the intramural research program collected small gifts (shown above) that were used in the inn's "Thoughtful Treasures" program, which provides a small daily treat for each child undergoing treatment at NIH. More than 1,400 presents were collected for these pediatric patients, including coloring books handmade by employees' children who participated in Take Your Child to Work Day this past April and handmade bracelets, crayons and picture frames crafted by postdocs/postbacs who volunteered to assist with the program. The work life committee hopes to make this program an annual event each spring.

Dr. Mary Woo of the University of California, LA

It's All in Your Head

Woo Demonstrates Connection Between Heart Failure, Brain

By Jeff Kopp

It's common knowledge that our muscles, from head to toe, are connected. But what about other organs such as the heart and brain? Dr. Mary Woo of the University of California, Los Angeles, recently spoke on her findings, which show that patients with heart failure commonly exhibit issues in the brain as well.

Woo worked as a staff nurse in cardiac critical care for 13 years and received her master's degree and doctorate in cardiovascular nursing from UCLA. It was there that she noted that she "could tell who was going to die" by listening to the way patients were breathing while they slept.

These subjects were exhibiting central sleep apnea, which means the brain's respiratory control centers were imbalanced during sleep, causing uneven breathing patterns. She later noticed during her time as a research assistant at the UCLA division of cardiology that heart failure patients often exhibited a set of mental symptoms as well as central sleep apnea, including sleep problems, clinical depression and difficulties with cognition/motor coordination.

Woo makes presentations on her findings worldwide and has published more than 100 articles and multiple book chapters on cardiovascular disease. She has received many awards, including being recognized as a "Pillar of Cardiovascular Research" by the American Heart Association Council on Cardiovascular Nursing. She is currently a professor at UCLA.

One key example Woo offered was part of the Montreal Cognitive Assessment test (MoCA): patients are given 5 words to repeat back to the examiner immediately, and again 5 minutes later. Patients without heart failure usually got 4 or 5 correct both immediately and at the 5-minute mark, whereas patients with heart failure often only scored 1 or 2 at both times. Magnetic resonance imaging brain scans also showed that patients with heart failure had significant mammillary body and hippocampal damage, which are brain regions associated with memory.

"When we actually looked at the hippocampal volumes…both the volume and cognitive performance were dramatically lower in comparison to the healthy control group," said Woo. Her studies also found that "the amount of sleep apnea was in fact directly correlated with the amount of brain injury."

Because these mental and behavioral problems are so closely related to cardiovascular function, she said, we need to "clinically evaluate and treat" these problems as well as treat heart failure, since they are linked.

She also stressed that her findings affect current patient education and self-care strategies, especially because many heart failure patients are unlikely to do anything proactive without a serious push from their health care provider due to their lowered cognitive ability.

One clinician from Pennsylvania mentioned during the Q&A session that in her clinic, they often call the doctor for patients, because patients just won't do it themselves. Woo said this was a good example of how the cognitive changes found in heart failure affect their care and underscores the need to explore alternative decision-making strategies for this patient group. After all, "hearts and brains don't grow on trees," she said.

Woo's presentation was the 2013 NINR Director's Lecture, an annual event that brings the nation's top nurse scientists to share their work. The lecture series began in 2011 as part of the observation of the institute's first 25 years at NIH.

Grady Discusses Role of Science in Health Policy at ONS Congress

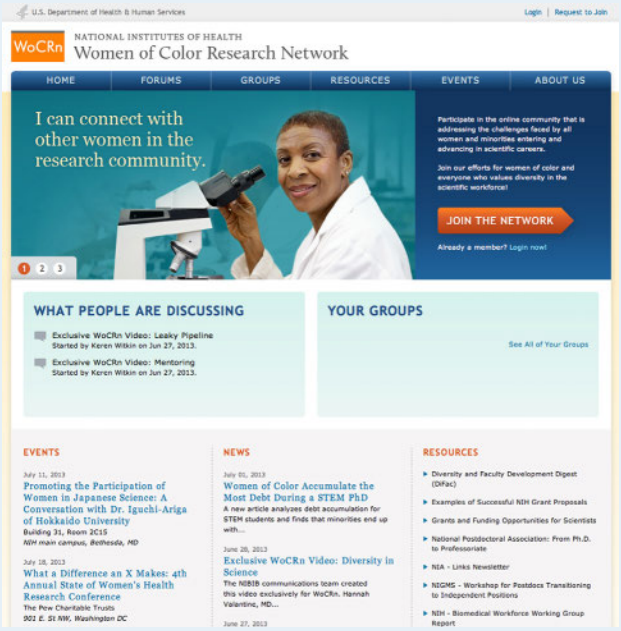
NINR director Dr. Patricia Grady recently spoke at Hill Day, a training event held at the Oncology Nursing Society's 38th annual congress. She focused on the role NINR-supported research plays in health care policy.

"NINR-supported research informs health policy and promotes innovation in all areas of nursing science," Grady said. "NINR investigates which clinical, community and system practices work best, for whom and under what conditions. Given its impact on society, oncology research is prominently represented in our research portfolio."

NINR director Dr. Patricia Grady (r) with ONS president Dr. Mary Gullatte

Citing several examples of NINR-funded studies—including research on engaging cancer patients and caregivers in self-management; identifying the mechanisms behind cancer-related symptoms; improving end-of-life care; and implementing programs and interventions to reduce risk and promote healthy lifestyles—Grady reflected on the growing evidence base in oncology nursing. In addition, she discussed research and training opportunities available through NINR and NIH.

"NINR will continue to build the evidence base for oncology nursing through patient- and family-centered research in symptom and self-management, prevention, caregiver health and support and end-of-life care," said Grady.



NETWORK

CONTINUED FROM PAGE 1

***Above, from l**:*
Dr. Belinda Seto, co-chair of NIH's committee on women of color in biomedical careers, says, "We have to raise mentoring to the next level, to advocacy."

WoCRn, a web-based network at www.wocrn.nih.gov/, is open to anyone with an interest. Close to 900 people had joined the network as of spring 2013.

tion and training find themselves searching for the next step in their careers. Or, more likely, they're considering several options and want to know which to explore and which to ignore. For women of color pursuing professions in science, technology, engineering and math, the problem is especially acute and can occur much earlier.

"STEM fields are very rigorous and need to start early in education," notes NIBIB deputy director Dr. Belinda Seto, co-chair of NIH's committee on women of color in biomedical careers."You have to have the love, the passion, in addition to the ability in math and the sciences. In this country we seem to have a mindset that girls don't like math. I don't believe that there are ability differences based on gender. I think it's our attitudes, our mindset, that is influenced by societal view that girls don't like math and science.

"There has to be a cultural shift," she continued. "We have to start believing that it's perfectly fine for a middle-school girl to love algebra. Her passion has to be celebrated early on. Mentoring is really critical for STEM fields."

Ready-Made Mentors

To start changing the mindset, and to offer a cadre of ready-made tour guides online, the committee launched WoCRn at www.wocrn.nih.gov/ in fall 2011. The women of color committee is a component of the NIH working group on women in biomedical careers, co-chaired by NIH director Dr. Francis Collins and Dr. Janine Clayton, director of the Office of Research on Women's Health. Concerns of women of color are being addressed by the work group through the committee; operated by ORWH, WoCRn is one project of the group.

"The [Donna] Ginther paper in *Science* in 2011 showed that there are lower success rates for scientists of color as compared to non-Hispanic white scientists," explained NIA deputy director Dr. Marie Bernard, who co-chairs the committee with Seto. "When factors such as country of origin, training site, etc., were controlled, there remained a difference for some scientists. The committee has been examining these issues and...found that women of color may not have adequate role models and support networks. WoCRn is a virtual network to help fill that perceived gap. It does not take the place of personal relationships. However, it is a means by which an initial introduction can take place, with it then being up to the parties involved to develop a relationship if they wish."

A Virtual Community

The web-based network—open to anyone with an interest—offers a wide range of information and ways to connect: from forum articles on "Demystifying the Grant Review Process" and "Applying for an NIH Grant" to a post asking for temporary housing suggestions for summer interns. Close to 900 people had joined the network as of spring 2013.

"We wanted to create an online community, a place for NIH to say we care about these issues," explains NIA's Dr. Cerise Elliott, a research program analyst who developed WoCRn with NIA colleague Dr. J. Taylor Harden (now retired). "Our goal is to connect like-minded people, find other postdocs and people interested in science and get them to interact.

"Although the numbers are improving," she continued, "women are still underrepresented in STEM fields. The network offers a baseline of resources. It's also a tool for the extramural community, another way to get the NIH name out there. There are other opportunities for the network to look at workability issues, career advancement and the resources to provide forward momentum someone might need."

Guiding Lights Necessary

Bernard says she could have used such a resource in the early days of her own career.

"I trained at a time that women were just beginning to be seen in large numbers in medicine and science," she said. "My medical school class had the largest number of women yet seen at the University of Pennsylvania—one quarter of the class. Thus, I ran into all of the challenges that are now hopefully behind us—being one of few women on clinical rotations; being picked on or ignored because I was a woman.

Dr. Cerise Elliott (l) of NIA developed WoCRn with an institute colleague; at right, NIA deputy director Dr. Marie Bernard co-chairs the committee on women of color in biomedical careers.

"Fortunately," Bernard said, "I had a number of male mentors who helped me cope with challenges. I also had an outstanding female mentor—my mother, one of few minority women physicians at the time that she trained and a wonderful guiding light as I pursued my career."

STEM 'Playbook'

Clayton emphasizes that the need for role models cannot be overstated. "I believe mentoring is critical to the advancement of women in many fields, especially in STEM," she said. "Mentoring is crucial to training in general and it's achieved in a variety of ways that are not always labeled as such. In STEM, there are established pathways as well as a collection of unwritten rules that constitute, in effect, a playbook for advancement in STEM. It's not that you can't progress without the playbook, but it's a lot easier when you know the 'rules.'"

Seto suggests going beyond traditional ideas about helping the next generation.

"We have to be catalysts," she said. "We have to raise mentoring to the next level, to advocacy. I had a wonderful mentor who pushed me. Beyond mentorship, advocacy and sponsorship go a step further."

Science is not a solitary pursuit, Bernard pointed out. More and more, a team approach is necessary.

"I think that science advances in the future will require more collaborative and interdisciplinary work than has been the case in the past," she said. "New advances will require networks of scientists from a variety of fields to come together to solve problems such as mapping the human brain, as has been proposed by President Obama. Being positioned to take advantage of such networking opportunities has traditionally been a problem for women, and particularly for women of color. The WoCRn was developed to facilitate connections between scientists who are women of color or who are interested in issues of women of color."

The network may be small now, but its influence can be enormous, predicted Seto. "We're nowhere near the critical mass, but we can be a strong, advocating community. We have to get to the point where women scientists are no longer the afterthought for awards, lectureships and leadership positions. Our numbers may be small, but that does not mean we don't have a powerful voice."

Clayton agreed, concluding, "I want the network to encourage and support women to pursue their aspirations. I'm hoping it will provide both peer-to-peer connections and facilitate mentee-mentor relationships as well as promote the advancement of women of color scientists for a variety of opportunities. I'm also hoping it will help anyone interested in STEM understand the landscape and deftly navigate through the potholes and pitfalls."

The web site for the work group is womeninscience.nih.gov.

NIH News in Health Celebrates 100 Issues

July 2013

NIH News in Health

Healthy Movements
Your Body's Mechanics

Definitions

Subscribe

Keep your body moving, engage your muscles, eat right and maintain a healthy weight. These are among the tips you'll find in the July 2013 *NIH News in Health* cover story on biomechanics. The issue, which includes a story on preventing hyperthermia and several "health capsules," marks the publication's 100th edition.

NIH News in Health, a publication of the OD Office of Communications and Public Liaison, primarily gets sent to community health clinics, senior centers and libraries. "I think the most interesting thing about *News in Health* is the diversity of its audience," said managing editor Harrison Wein. "Community health clinic workers use it as a teaching tool; Meals on Wheels distributes it; health insurance agents send it to their clients; high school teachers and librarians use it as a resource."

The first issue of the monthly *NIH News in Health* came out in April 2005, featuring a story on breast cancer. The practical information in each issue is reviewed by NIH's medical experts and based on research conducted by NIH's own scientists and grantees.

"We synthesize the work of all the different ICs at NIH," said editor Vicki Contie. "If we're doing a story on vegetarian diets, for example, we consult NCI, ODS [Office of Dietary Supplements] and NIDDK. We pull everything together, the best of NIH. And the communications offices are wonderful at finding experts for us to interview, both intramural and extramural."

Currently, *NIH News in Health* sends about 24,000 print copies to recipients in all 50 states, all by request. About 140,000 receive the newsletter via email. It's also available on the web at http://newsinhealth.nih.gov/. The publication has won numerous NIH Plain Language Awards and awards from the National Association of Government Communicators.

"Our goal is to empower people to make healthy choices," said Wein. "We tell people how to use what we discover at NIH to improve their health."—**Dana Steinberg**

LISTENING

CONTINUED FROM PAGE 1

***Above, l**:*
NIH leadership listens to Nate Stinson (l) of NIMHD. Also at the head table is Kellan Baker (r) of the Center for American Progress.

Above, r:
Dr. Scout of the Fenway Institute makes a point during the listening session.

PHOTOS: ERNIE BRANSON

munity) to be designated as a health disparities population, which would make them eligible for federally funded research and research-related opportunities specific to health disparity populations. That decision currently rests with the HHS assistant secretary for health. NIH was also urged to bolster career development for LGBTI investigators, who are familiar with the needs of their communities, as well as for investigators interested in or working on LGBTI health research.

"I should say at the outset, we don't have all the answers," said Tabak, who called the session the first in a series, and only one of "multiple opportunities" for the LGBTI community to give input to NIH. NIH has also established an email address—lgbtihealthresearch@od.nih.gov—to accept comments indefinitely.

Collins said that, since 2011, when the Institute of Medicine issued a consensus report on "The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding," NIH has issued three funding announcements on LGBTI health issues, established a standing committee on LGBTI health research issues, revised workforce nondiscrimination policies and hired NIH's first LGBTI special emphasis program manager—Albert Smith.

Also, that day, NIH issued a Request for Information (RFI) asking for input on challenges, opportunities and outcome indicators related to LGBTI health "to inform the development of an NIH LGBTI Research Strategic Plan."

"I hope this can be one of many sessions where we learn from one another," Collins noted.

"Just being recognized here is an incredible statement," said Seh Welch, a former NIH employee now in graduate school at Kent State University who advocates for and identifies as Two Spirit, or one whose body manifests both a masculine and a feminine spirit. "It's a new day in America, in our homelands. I am honored to have been here."

Representing the concerns of those who identify as intersex was Arlene Baratz of the Androgen Insensitivity Syndrome-Disorders of Sex Development Support Group, who said the "I" in LGBTI could as well stand for "isolated or invisible."

Intersex refers to people with disorders of sex development, or DSDs, and can include people with ambiguous genitalia or some variation in sex characteristics that makes it unclear whether one is distinctly male or female. "Our issues are distinct from those of the LGBT community," Baratz said.

Harlan Pruden, a member of the Cree Nation who lives in New York City and who belongs to one of the 16 Two Spirit groups in the U.S., also said his community is neglected. "Rarely is my community ever at the table," he noted.

Collins asked how Two Spirit and LGBTI identities interact—"We may sometimes stumble over this," he admitted.

"It depends on who you're talking to," said Pruden. Two Spirit emphasizes not only coming out, but also coming in, and embracing one's identity, he said. "There are fundamental differences between Two Spirit and LGBTI."

Representing the country's largest LGBT organization, the Human Rights Campaign, was Shane Snowden, who declared, "This meeting today is historic in itself…as moving in its way as what has happened in the [Supreme] Court [which had just struck down barriers to gay marriage]."

The surprise in the room was palpable when Snowden, who spent years on the staff of the University of California at San Francisco, disclosed that even in San Francisco, identifying as gay faculty was exceedingly rare. Further, she said LGBT graduate students at UCSF viewed being out as a career killer, a sure detour from the path to a Nobel Prize.

"'Go ahead, don't be scared' should be NIH's message," she said.

Another advocate for the intersex community

"NIH can make a huge difference in the lives of LGBTI people," said Fenway's Dr. Judith Bradford.

was Karen Walsh, an adult NIH outpatient who said, "I received very poor medical attention until I came to NIH…As an American citizen, this shouldn't have happened."

Walsh said she has androgen insensitivity syndrome, but had been dismissed by doctors who labeled her "a genetic male and a postmenopausal woman." She decried a lack of data about people with her condition and a dearth "of follow-up on wellness for anyone with an intersex condition…We don't feel well understood…I am extremely grateful that you included intersexuality in this group."

David Bond of the Trevor Project offered sobering statistics about unmet health needs in lesbian, gay, bisexual, transgender and questioning (LGBTQ) communities, including: 40 percent of homeless and runaway youth identify as LGBTQ; LGBTQ youth are 4 times more likely to commit suicide than non-LGBTQ peers; and about 50 percent of transgender youth have attempted suicide.

"NIH can make a huge difference in the lives of LGBTI people," said Dr. Judith Bradford of the Fenway Institute and Virginia Commonwealth University. "I hope you'll put this together in some kind of organized way…that recognizes us as a population, not in pieces here and there that fill holes." She insisted that if people just got to know, on a personal level, the human beings who happen to identify as LGBTI, "then other issues will disappear."

Collins concluded, "I found this to be an extremely useful 90 minutes. It was just the kind of consciousness-raising that I had hoped would happen. We are intensely interested in doing the right thing here. I hope you will be patient with us as we wrestle with our budgetary situation…We're in a crisis situation and are feeling a pretty dreadful squeeze at the moment. We can't move as quickly as we'd like in any research area…But we want to be innovative and bold. We want to be part of this great week [that included the Supreme Court DOMA decision], this sea change."

To watch a videocast of the session, visit http://videocast.nih.gov/summary.asp?Live=12839.

Attending the GACD meeting were (from l) Dr. Lixin Jiang, Chinese Academy of Medical Sciences; Dr. Roger Glass, director, Fogarty International Center; Dr. Guillermo Ruiz Palacios, National Institutes of Health in Mexico; Ambassador Eric Goosby; Dr. Alain Beaudet, Canadian Institutes of Health Research; Dr. Karim Berkouk, European Commission; Dr. Xuetao Cao, Chinese Academy of Medical Sciences; Prof. Warwick Anderson, Australia National Health and Medical Research Council; and Celina Gorre, GACD.

Health Leaders Discuss Noncommunicable Diseases

In June, the Global Alliance for Chronic Diseases (GACD) and representatives from NIH hosted an event at the United States Capitol Visitor Center with Ambassador Eric Goosby, the U.S. global AIDS coordinator and head of the Office of Global Health Diplomacy at the U.S. Department of State.

During the event, Goosby and members of the GACD board participated in a panel discussion that was moderated by Dr. Roger Glass, director of the Fogarty International Center and NIH associate director for international research. The discussion highlighted strategic investments in global health research with a particular focus on chronic, noncommunicable diseases (NCDs) in low- and middle-income countries.

NCDs, which account for around 60 percent of all deaths globally, transcend borders and countries, which is why it's critical to take a global and collaborative approach to addressing them. As Goosby indicated, it makes sense to expand the United States' work in the global health space to include NCDs, as they affect so many people around the world. There is a lot that can be done by combining efforts on an international scale.

NIH is a founding member of GACD, which is composed of public research funding agencies from Australia, Canada, China, the EU, India, South Africa, the United Kingdom and the U.S. GACD is the first collaboration of major international public research funding agencies to specifically address chronic NCDs.

PHOTOGRAPHY

CONTINUED FROM PAGE 1

People expect photography to be honest, accurate and reproducible, said Dr. Stephen Greenberg. "Of course none of these are true. Photography is infinitely mutable, and always was."

ogy changes every 20 minutes." The Nikon, he said, "is really not a camera, but a computer—so much processing goes on inside."

The beginnings of what we now know as photography began with daguerreotypes, named after Louis-Jacques-Mandé Daguerre. Instead of making a negative, it made only one "positive" inside the camera by exposing a silver-coated copper plate to light for several minutes at a time.

Greenberg traced the evolution of photography, dubbed "the art of Truth" by *The Lancet* in 1859, from daguerreotypes—one-of-a-kind plates that couldn't be put into books or medical journals—through the innovations of William Henry Fox Talbot, who invented sensitized paper for image reproduction; Frederick Scott Archer, whom Greenberg called "the inventor of modern analog photography"; to lithography, collotypes, gravure and other types of reproduction. "There are so many processes [for image reproduction] now that you can't even shake a stick at them," Greenberg said.

He noted that people expect photos to be three things: honest, accurate and reproducible. But, he cautioned, "Of course, none of these are true," especially in the era 1845-1880. "Photography is infinitely mutable, and always was."

In terms of honesty and accuracy, early medical photographs were far from ideal: French neurologist Guillaume-Benjamin-Amand Duchenne de Boulogne tried to use photographs to record facial expressions that he induced in his patients with electric current. But he had to do some serious tinkering with his process to get the photos he sought. In fact, Greenberg believes his photos, published in 1862, were re-enactments, taken after the actual experiments.

"[The field of] psychology has always been interested in the appearance of patients," Greenberg noted. Physicians, he explained, felt it helped with diagnosis.

Greenberg showed how, despite its flaws, photography revolutionized medicine. With this technology, doctors such as Alfred Donne were able to make daguerreotypes of what he saw through his microscope, which artists later drew to illustrate medical texts.

"The greatest breakthrough was the ability to mass produce, from a negative, any number of reproductions that you needed," he explained.

He ended with a quote from Tod Papageorge, an American art photographer who, since 1979, has taught photography at Yale: "Those early years were the time of the Miracle, when no one knew quite what to make of photography, but everyone knew it was astonishing."

Astonishing, for sure. But the truth? Not so fast, Greenberg concluded.

Aguila Named Deputy Director of CRCHD

Dr. Nelson Aguila has been named deputy director of the National Cancer Institute's Center to Reduce Cancer Health Disparities (CRCHD).

"Nelson is passionate about scientific research, and he has been an extremely compassionate and a fervent supporter of the training and educational needs of students and faculty from diverse populations," said Dr. Sanya Springfield, director of CRCHD. "His ability to inspire young investigators and gain respect with his colleagues within the NCI and NIH community, coupled with his broad scientific and research knowledge of cancer, made him the top candidate for this position."

Previously, Aguila served as chief of CRCHD's Diversity Training Branch (DTB), a position he has held since 2011. DTB leads NCI's efforts in the training of students and investigators from diverse populations so that they can become the next generation of competitive researchers in cancer health disparities research.

Aguila has been a health scientist administrator at NIH since 2001, when he joined NCI's Comprehensive Minority Biomedical Branch. In 2007, the branch became part of CRCHD. During his tenure, Aguila has been instrumental in implementing and expanding several NCI training initiatives designed to increase workforce diversity, particularly at the graduate level. In 2011, he received the NIH Award of Merit.

Aguila earned his doctor of veterinary medicine degree at Austral University in Chile and trained as a neurobiologist at the University of Texas Southwestern Medical Center, Dallas. He is the author of more than 40 scientific publications.

digest

Vietnam Vets with PTSD More Than Twice as Likely to Have Heart Disease

Male twin Vietnam veterans with post-traumatic stress disorder (PTSD) were more than twice as likely as those without PTSD to develop heart disease during a 13-year period, according to a study supported by NIH.

This is the first long-term study to measure the association between PTSD and heart disease using objective clinical diagnoses combined with cardiac imaging techniques.

"This study provides further evidence that PTSD may affect physical health," said Dr. Gary Gibbons, director of NHLBI, which partially funded the study. "Future research to clarify the mechanisms underlying the link between PTSD and heart disease in Vietnam veterans and other groups will help to guide the development of effective prevention and treatment strategies for people with these serious conditions."

The findings appeared online in the *Journal of the American College of Cardiology* and will be featured in the Sept. 10 print issue.

Estrogen Therapy Has No Long-Term Effect on Cognition in Younger Postmenopausal Women

A randomized clinical trial of estrogen therapy in younger postmenopausal women, ages 50-55, has found no long-term risk or benefit to cognitive function. The NIH-supported study, reported in *JAMA Internal Medicine* on June 24, looked at women taking conjugated equine estrogens, the most common type of postmenopausal hormone therapy in the United States.

The earlier Women's Health Initiative Memory Study (WHIMS) linked the same type of hormone therapy to cognitive decline and dementia in older postmenopausal women.

The new findings come from the Women's Health Initiative Memory Study of Younger Women (WHIMSY) trial funded primarily by NIA, along with NHLBI.

"The WHIMS study found that estrogen-based postmenopausal hormone therapy produced deficits in cognitive function and increased risk for dementia when prescribed to women 65 and older," said NIA director Dr. Richard Hodes. "Researchers leading the WHIMSY study wanted to expand on those results by exploring the possibility of a window of opportunity whereby hormone therapy might promote or preserve brain health when given to younger women."

"In contrast to findings in older postmenopausal women, this study tells women that taking these types of estrogen-based hormone therapies for a relatively short period of time in their early postmenopausal years may not put them at increased risk for cognitive decline over the long term," said NIA's Dr. Susan Resnick. "Further, it is important to note that we did not find any cognitive benefit after long-term follow-up."

Only Half of U.S. Youth Meet Physical Activity Standards, Study Shows

Only about half of U.S. adolescents are physically active 5 or more days of the week, and fewer than 1 in 3 eat fruits and vegetables daily, according to researchers at NIH.

In a survey of youth in 39 states, researchers questioned nearly 10,000 students between 11 and 16 years old about their activity levels and eating habits. They also asked the students to describe their emotional health, body image and general satisfaction with life.

"The students showed a surprising variability in eating patterns," said lead author Dr. Ronald J. Iannotti of the Prevention Research Branch, NICHD. "But most—about 74 percent—did not have a healthy pattern."

Only about half of U.S. adolescents are physically active 5 or more days of the week, and fewer than 1 in 3 eat fruits and vegetables daily.

Iannotti conducted the research with NICHD colleague Dr. Jing Wang. Funding also was provided by the Maternal and Child Health Bureau of the Health Resources and Services Administration.

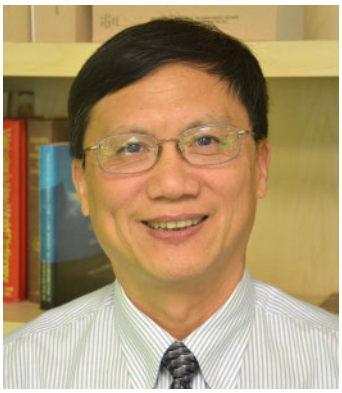
Their findings appeared in the *Journal of Adolescent Health*.

Shurtleff Appointed NCCAM Deputy Director

Dr. David Shurtleff has been named deputy director of NCCAM, where he will collaborate with director Dr. Josephine P. Briggs in leading the center's scientific, programmatic and administrative endeavors. He comes to NCCAM from NIDA, where he served as deputy director of the institute and its Special Populations Office. He had previously served as director and deputy director of the Division of Basic Neuroscience and Behavioral Research and as a health scientist administrator over his 18-year career at NIDA. Before coming to NIH, Shurtleff was a research psychologist at the Naval Medical Research Institute, where he conducted behavioral, physiological and neuroscience research related to understanding the effects of environmental stress (such as cold-induced stress) on behavioral and cognitive performance. He holds a Ph.D. and M.A. in experimental psychology from American University.

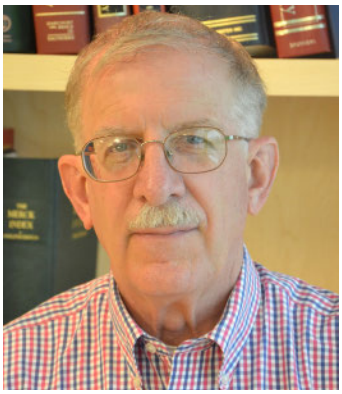
milestones

Three New Chiefs at CSR



Dr. Weijia Ni

Dr. Gabriel B. Fosu



Dr. Arnold Revzin

The Center for Scientific Review recently named three new chiefs to its scientific staff.

Dr. Weijia Ni is chief of the risk, prevention and health behavior integrated review group (IRG). He had been scientific review officer of the language and communication study section in the biobehavioral and behavioral processes IRG.

"Weijia has distinguished himself as a leader with a deep grasp of the principles of peer review and knowledge of many scientific fields," said CSR director Dr. Richard Nakamura. "He has done a masterful job leading the scientific review officers at CSR to manage the reviews of applications for the NIH Director's Early Independence Awards."

Dr. Gabriel B. Fosu is new chief of the health care delivery and methodology IRG. He had been managing the risk, prevention and intervention for addictions study section previously.

"Gabriel brings impressive team-building and leadership skills to this important position," said Nakamura. "He played a key role in leading the development of HDM's health disparities and equity promotion study section. Before he came to CSR, he also excelled in leading teams of officials from the UN, USAID and foreign governments."

Dr. Arnold Revzin is chief of the oncology 1-basic translational IRG. He had been scientific review officer for the macromolecular structure and function B study section as well as a CSR referral officer.

"Arnold stood out in a field of impressive candidates for his depth of experience and unflagging commitment to peer review and the scientific community," said Nakamura. "In addition to having great insights into CSR's practices and policies from 15 years at CSR, Arnold benefits from having had a remarkable career in academia."

NLM's Lipman Named 'Champion of Change' by White House

Dr. David J. Lipman, director of NLM's National Center for Biotechnology Information (NCBI), was honored at a June 20 White House ceremony for recipients of the Champions of Change awards in the "open science" category. All were recognized for their outstanding work in "promoting and using open scientific data and publications to accelerate progress and improve our world."

In his 24 years as founding director of NCBI, Lipman has played a major role in expanding public access to scientific data and biomedical literature. An advocate of open exchange of genomic data, he led efforts to streamline submission, curation and international exchange of genetic sequence data with Europe and Japan, expanding GenBank to become the world's largest public database of DNA data.

Under Lipman's leadership, NCBI added more than 40 interlinked genomic and bibliographic databases freely available on the web, making many innovations in data standards, data submission and curation along the way.

Lipman received his undergraduate degree from Brown University and his M.D. from the University at Buffalo, State University of New York. He is the recipient of numerous awards including election to the National Academy of Sciences in 2005.

NEI Welcomes New Council Members

The National Eye Institute recently appointed three new members to its National Advisory Eye Council.

Dr. Laura J. Frishman is the John and Rebecca Moores professor of optometry, vision science and biology and associate dean for research and graduate studies for the College of Optometry at the University of Houston. She is a retinal physiologist whose research has focused on refining noninvasive electrophysiological approaches for evaluating the function of the retina *in vivo* and, more recently, the central visual pathways.

Dr. Jayne S. Weiss is chair of the department of ophthalmology, professor of ophthalmology, pathology and pharmacology and the Herbert E. Kaufman, M.D., endowed chair in ophthalmology at Louisiana State University Health Sciences Center in New Orleans. Her expertise is in Schnyder corneal dystrophy, an eye disorder in which the cornea, the normally clear dome-shaped surface at the front of the eye, becomes opaque due to a build-up of materials.

Dr. Rafael Yuste is a professor of biological sciences and neuroscience at Columbia University, where he is also co-director of the Kavli Foundation's Institute for Brain Science. He has a longstanding interest in understanding the function of the visual cortex and is pursuing a reverse engineering strategy to decipher the structure and function of its microcircuits.

NEI's Dr. Loré Anne McNicol (l) and NEI director Dr. Paul Sieving (r) welcome new council members (from l) Dr. Laura Frishman, Dr. Rafael Yuste and Dr. Jayne Weiss.

NIGMS Adds New Program Directors

NIGMS recently added two members to its scientific program staff.

Dr. Zhongzhen Nie joined the Division of Cell Biology and Biophysics to administer research grants in membrane and cytoskeletal dynamics. He came to NIGMS from the University of Florida College of Medicine, where he was an assistant professor in the department of urology. Nie earned a bachelor of medicine degree from Wannan Medical College in China and a Ph.D. in molecular pharmacology from Southern Illinois University School of Medicine, where he also conducted postdoctoral research prior to a research fellowship in the NCI Laboratory of Cellular Oncology.

Dr. Oleg Barski joined the Division of Pharmacology, Physiology and Biological Chemistry, where he handles research grants in enzyme catalysis and regulation. Before coming to NIGMS, he was an assistant professor in the division of cardiovascular medicine at the University of Louisville School of Medicine. He earned an M.Sc. in chemistry and a Ph.D. in chemical kinetics and catalysis from Moscow State University in Russia. Barski conducted postdoctoral research at Osaka Bioscience Institute in Japan and Baylor College of Medicine.

Gregurick Is New NIGMS Division Director

Dr. Susan K. Gregurick, a leader in computational biology who has worked in government and academia, is the new director of the NIGMS Division of Biomedical Technology, Bioinformatics and Computational Biology.

"The division's activities are critical to many areas of science, especially now that we are on the verge of extracting new knowledge from massive biological data sets," said NIGMS acting director Dr. Judith Greenberg. "Dr. Gregurick's vision and willingness to take on challenges, her expertise in computational biology and biotechnology and her success in developing effective programs and policies to support these fields make her an ideal choice."

From 2011-2012, Gregurick was acting director of the biological systems science division at the Department of Energy. She developed and managed DOE's systems biology knowledgebase, which enables the integration of diverse data sets for modeling, simulation and experimental studies. Starting in 2007, Gregurick's other DOE activities included developing programs in modeling microbial function, metagenomic analysis from high-throughput sequencing and plant bioinformatics methods. She also oversaw bioinformatics and high-performance computing efforts at DOE's Joint Genome Institute and Bioenergy Research Centers.

Earlier in her career, Gregurick was a professor of computational biology at the University of Maryland, Baltimore County.

She earned a B.S. in chemistry from the University of Michigan and Ph.D. in chemistry from the University of Maryland. She has 41 peer-reviewed publications and has given more than 55 invited lectures on her research and programmatic activities.

NIH 'Green Champions' Honored for Creativity, Commitment

By Nicole Martino

More than a dozen organizations, small groups and individuals were recognized for their commitment to sustainability at the fifth annual HHS Green Champion Awards Ceremony held in Lipsett Amphitheater on June 20.

The ceremony honored NIH recipients for innovation, collaboration, return on investment and impact in greening and sustainability efforts, almost all of which are accomplished in addition to the awardees' regularly assigned duties.

"NIH has proved to be a true green leader this year with 8 green champion awards and 6 honorable mentions," said Howard Kelsey, HHS deputy assistant secretary for facilities and logistic service. "It's a tribute to what people care about."

Dr. John Balbus, NIEHS senior advisor for public health and HHS principal to the global change research program, delivered the ceremony's keynote speech, commending attendees for their work helping address what he called the great challenge of our generation. "Sustainability, climate change resilience and health we know are intricately linked," he said. "The innovations we're talking about today aren't just about reducing cost, they're not just about producing environmental benefit—these are truly public health interventions."

Balbus also encouraged all green champions to fully meet future challenges by considering fundamental transformational changes in the way NIH produces and uses energy and materials. He acknowledged that the effort is not likely to receive expanding financial resources. This will require future creativity and innovation, like that being honored today, he said.

Patrick Shirdon, director of management at the National Institute on Aging and chair of the NIH sustainability management team, said recent green team accomplishments include implementation of the Chemical Surplus Program through NIAID FreeStuff, "which was so successful that it was implemented across NIH and is now known as NIH FreeStuff. This program has successfully reduced thousands of dollars in the procurement of chemical agents in NIH laboratories through the reuse and distribution of unused and unopened chemicals."

He continued, "Another noteworthy accomplishment is the NIH mercury amnesty events. The NIH Division of Environmental Protection will be offering a Mercury Amnesty Program throughout the NIH main campus during the months of June to October 2013. DEP staff will visit all of the labs located on the Bethesda campus to pick up mercury-containing equipment and mercury compounds for compliance with NIH's mercury-free policy."

Dr. John Balbus (l), NIEHS senior advisor for public health and HHS principal to the global change research program, delivered the ceremony's keynote address. Also speaking was Howard Kelsey (r), HHS deputy assistant secretary for facilities and logistic service.

Among those recognized with awards were the electric charging station group, a trial project that enables NIH employees to charge personal electric vehicles using circuits paid for by the NIH Federal Credit Union. The data center uninterruptable power supply team, a partnership between CIT and ORF, also received an electronic stewardship award for an upgrade to the data center's power system from an unreliable diesel generator/battery and rotary system to a more stable rotary-based uninterruptable power supply. The new system reduces power consumption by nearly 50 percent, carbon footprint by 55 percent and diesel consumption by 96 percent.

Patrick Shirdon, director of management, NIA

Other awardees included the NCI Shady Grove voice-over IP team; the recycled used plastic caging team; the sustainable furniture initiative; the NIH Information Technology Acquisition & Assessment Program; the NCI Shady Grove green transportation group; and the NCI Shady Grove waterless urinals team.

The NCI Shady Grove renewable energy group, the watt stoppers initiative, the NCI green team and the NCI campus at Frederick green team received honorable mentions for energy management and environmental stewardship. An honorable mention for individual stewardship also went to Minoo Shakoury-Elizeh of NIDDK. The freezer initiative, a cash-for-clunkers effort that organized the replacement of 98 old energy-hogging freezers with 70 new energy-efficient freezers, was also recognized with honorable mention for sustainable acquisitions.

The HHS Green Champion Awards were established in response to an Executive Order issued by President Obama challenging federal agencies to dramatically reduce greenhouse gas emissions, energy and water consumption and pollution. For more information about sustainability initiatives at NIH or for a full list of the award winners, visit www.nems.nih.gov.