



ABOVE • In its 30th year, the Camp Fantastic BBQ still draws a spirited crowd. See p. 2.

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# nih record

*'Impact' on Health, Economy in Focus*

## Director's Advisory Committee Emphasizes Telling NIH's Story

By Carla Garnett

NIH is good for science and good for the economy. If those words were lyrics, everyone connected in any way to NIH ought to be singing them loudly and at every opportunity. That was the message at the 104th meeting of the advisory



At the recent ACD meeting, NIH principal deputy director Dr. Larry Tabak (l) and NIH director Dr. Francis Collins enjoy a light moment.

committee to the NIH director (ACD) on June 14. NIH director Dr. Francis Collins, cast throughout the meeting by several presenters as an agile lead singer, indicated in opening remarks that the timing is perfect for such an NIH chorus.

"We're seeing a gratifying acceleration in terms of scientific progress on many fronts," including 15 papers published in 1 week on the Human Microbiome Project, he noted, opening the meeting.

"It's truly a testament to the creativity,

SEE ACD MEETING, PAGE 6

## Columnist Friedman Offers Prescription For Pre-eminence

By Rich McManus

New York Times foreign affairs columnist Thomas L. Friedman thinks the United States is in danger of growing weak on the international stage and offered a prescription for a return to pre-eminence at the J. Edward Rall Cultural Lecture on May 24.



The Bethesda resident, doing what he called "a neighborhood concert" at NIH, has just published a book with his neighbor and fellow "foreign policy geek" Michael Mandelbaum that formed the substance of his talk: *That Used to Be Us: How America Fell Behind in the World It Invented and How We Can Come Back*.

SEE FRIEDMAN, PAGE 4

## Berkley Speaks on Access to Childhood Vaccinations in Developing World

By Audrey Hill



In the field of vaccinology, older vaccines that prevent diseases such as polio, as well as promising new vaccines for HPV and other illnesses, reflect immunization's power to save lives and change the course of a disease's spread. Providing

access to vaccines is an ongoing challenge, as Dr. Seth Berkley, CEO of the GAVI Alliance, explained in a May 22 talk at NIH.

His presentation on the theme "Getting the Miracle of Vaccines to Those Who Most Need Them," served as the John Ring LaMontagne Memorial Lecture. "It is fitting that our speaker today...will discuss the challenges of deliver-

SEE BERKLEY, PAGE 8



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*NIH...Turning Discovery Into Health*

## briefs

### NCI To Host Immunology Conference, Oct. 4-5

The National Cancer Institute's Center of Excellence in Immunology is sponsoring the annual conference "Frontiers in Basic Immunology: 2012," on Oct. 4-5 in Masur Auditorium and Lipsett Amphitheater, Bldg. 10.

The conference will host leaders in the field of basic immunology. The program includes recent advances in the field and will provide a forum for discussion on the current understanding of basic immunological mechanisms. Participants will learn about the latest findings in lymphocyte biology and signaling, adaptive and innate immune responses and immunity and disease.

Registration is free, but seating is limited. The deadline for abstract submission is Aug. 17. Online registration and instructions for abstract submission can be found at <http://web.ncicrf.gov/events/Immunology2012>.

### Safety Award Accepts Nominations

The Mission First, Safety Always Award, presented by the Office of Research Services' Division of Occupational Health and Safety, showcases NIH personnel who have demonstrated leadership, innovation and involvement in their organization's safety culture and promoted safety in the workplace. Nominations can be submitted at [www.ors.od.nih.gov/sr/dohs](http://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 successful 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 unhealthy workplace conditions or hazards.

Nominations are open until 11:59 p.m. on Aug. 1. If you have questions, email [ORSSafetyDay@mail.nih.gov](mailto:ORSSafetyDay@mail.nih.gov) or send written questions to NIH, OD, ORS, DOHS (Attn: NIH Mission First, Safety Always Questions), Bldg. 13, Rm. 3K04, 13 South Dr., MSC 5760, Bethesda, MD 20892-5760.

### NIH Sailing Association Open House

The NIH Sailing Association will hold an open house on Sunday, July 15 from 10 a.m. to 3 p.m. at the Selby Bay Sailing Center in Mayo, Md. Explore your interest in learning to sail and discover opportunities for sailing with NIHSA. There will be demonstration sails for adults in the club's 19-ft. Flying Scot sailboats. This is a

good chance to preview the boats and meet the members. Directions can be found at [www.recgov.org/sail](http://www.recgov.org/sail). The open house includes snacks and drinks for \$5 per person. Look for posters and flyers around campus for more information.



### Camp Fantastic BBQ Pleases Crowd, Raises Funds

*Bumped one day forward due to rain, the 30th annual Camp Fantastic BBQ drew some 400 attendees on June 13, including spirited volunteers (from l) McKenna Murray, Robert Proctor and Nicole Fleck. The event raised \$4,000, or enough to send about 6 kids to the week-long August camp for children with cancer. A silent auction held simultaneously was the best yet, according to organizers from NIH's Recreation & Welfare Association, drawing participants from Frederick as well as the main campus. Items up for bid included a Wii, a vacation getaway, electronics, golf certificates and event tickets. A deejay also entertained customers at the midday lunch held on the Bldg. 31A patio.*

PHOTO: DAVID BROWNE

### Graduate School Fair Set for July 20

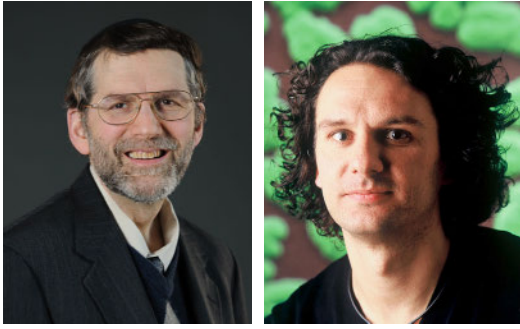
The Office of Intramural Training & Education invites summer interns and postdocs to the NIH Graduate & Professional School Fair on Friday, July 20 at the Natcher Conference Center and Lister Hill Auditorium from 9 a.m. to 3 p.m. Exhibits will be open from 10 a.m. to 1:45 p.m.

The fair will provide an opportunity for NIH students from the Washington, D.C., area to prepare for the next step in their careers by exploring educational programs in the biomedical sciences. More than 100 outstanding colleges and universities will be sending representatives from their graduate schools, medical and dental schools, schools of public health and other biomedical programs to the fair.

The event will also include career and professional development workshops. More information can be found at [https://www.training.nih.gov/gp\\_fair](https://www.training.nih.gov/gp_fair).

# nih record





*NIH'ers (clockwise, from above) Dr. Michael Lauer of NHLBI, Dr. Tom Misteli of NCI and Dr. Clare Waterman of NHLBI received 2011 Arthur S. Flemming Awards on June 4 for exceptional contributions to the federal government.*

### Three NIH'ers Receive Flemming Awards


Three NIH'ers —Dr. Michael Lauer of NHLBI, Dr. Tom Misteli of NCI and Dr. Clare Waterman of NHLBI—received 2011 Arthur S. Flemming Awards on June 4 for exceptional contributions to the federal government. The 63rd annual awards were presented by George Washington University and the Flemming Commission, in cooperation with the National Academy of Public Administration. The awards have recognized outstanding men and women in federal service since 1948 in honor of Flemming's commitment to public service throughout his distinguished career, which spanned seven decades and 11 presidencies.

Lauer was selected for his outstanding leadership as director of the NHLBI Division of Cardiovascular Sciences. He established new principles for management of a \$1.7 billion program of basic, translational and clinical cardiovascular research. He pioneered use of streamlined results-based accountability in research decision-making using objective metrics and has increased the value of large population-based studies by sharpening the focus on clinical outcomes. He fostered research in neglected populations and neglected areas with significant public health and cost implications.

Misteli was cited for his groundbreaking work as a senior investigator in the field of cancer cell biology at NCI. He developed imaging methods to visualize the genome in living cells. His work led to several important conceptual advances in the fundamental understanding of genome function and has practical application in biomedicine. Misteli's methodologies have enabled him to characterize molecular mechanisms

involved in the progression of cancer, as well as to discover novel human aging mechanisms and to invent a diagnostic strategy for cancer detection. Recently, he was appointed associate director of NCI's Center for Cancer Research and head of the newly established Office of Scientific Development.

Waterman was selected for her seminal contributions as a senior investigator toward the understanding of fundamental mechanisms of cell migration. She is a world-leading expert in basic cell biology research. Using a quantitative microscopy method known as fluorescent speckle microscopy that she invented, she has brought major advances in the knowledge of how cells self-assemble dynamic, force-generating cytoskeletal and cell adhesion structures that physically drive vertebrate tissue cell migration.

GWU and the Flemming Commission present a total of 12 awards annually in three categories: applied science, engineering and mathematics; research; and managerial or legal achievement. The awards honor individuals with 3 to 15 years of federal service for their exceptional contributions to the federal government. 



### Who Says 'No Free Lunch?'

*As a reward for finishing first—for the seventh year in a row—in rate of participation in Bike to Work Day, NIH commuter cyclists who registered for the event were treated to a free lunch of pizza, salad, cookies and cold drinks June 20 at Natcher Bldg. cafeteria. On hand to recognize the feat were (above, from l) R&W President Randy Schools; Office of Research Services director Dr. Alfred Johnson; Tom Hayden, associate director, program and employee services, ORS, and acting director of the Division of Amenities and Transportation Services; Dr. Diane Bolton of the NIH Bicycle Commuter Club and Nicholas Ramfos, director of Commuter Connections. NIH had 591 registered participants in BTWD on May 18.*



*At left, Bolton, who helped organize NIH's observation of BTWD 2012, expresses her appreciation to attendees, who enjoyed their meal courtesy of the Metropolitan Washington Council of Governments.*

PHOTOS: SALLY MCHUGH, RICH MCMANUS

## FRIEDMAN

CONTINUED FROM PAGE 1

"We are two frustrated optimists" who have observed the U.S. "in the worst sort of decline, a slow decline," said Friedman, whose opening vignette contrasted the lazy pace of Metro escalator repair at the Bethesda station with the construction of a fabulous convention center in urban China in only 8½ months.

As Americans stand blinking at evidence that

many things in society are becoming "discombobulated," other nations are doing a better job of educating their children, building infrastructure and becoming competitive in the world economy, he argued.

Friedman described a handful of "grand challenges" facing the world. "The most important trend is the merger of globalization and the IT revolution," he said. Next come the problems of debt, deficit and entitlement programs, followed by energy and climate issues.

The pace at which different points on the globe respond to these challenges has caught the authors' attention.

"The world went from being connected to being hyper-connected—that's the biggest thing happening in the world today," said Friedman, whose breakout book *The World Is Flat* (2005) has been rendered obsolete, he said, by the technological leaps of the past half-decade.

"The central socioeconomic fact of our time is that average is officially over," he reported, as the curve of achievement has been set higher than at any time in history. In a world where you can get cell phone service at the summit of Everest and Indian engineers can build a stripped-down iPad for only \$40, old standards of success no longer apply.

The effect in the workplace is that top earners—those typically doing specialized, non-routine work—must work harder than ever to innovate and distinguish themselves while those doing routine jobs—which used to form a substantial middle class in the U.S.—"are getting crushed."

"The demands of non-routine work are ratchet-

ing up," Friedman observed. "Everybody has to learn to bring something extra to the table, some value added." Or, as he explained, when he was young he had to find a job; today's youth have to invent a job. "You have to constantly justify the unique value that you add."

In Flat World 2.0, the speed of change is blinding. In interviews for his book at various economic strata, he and Mandelbaum, a professor of foreign policy at Johns Hopkins University, discovered that the team leaders who create video games are evaluated not annually or bi-annually but quarterly, lest one or two bum projects drag a company's annual earnings down. Companies now hire for a position called Chief Innovation Officer. Army captains in the remote provinces of Afghanistan now have more firepower and tactical intelligence at their disposal than did top military brass at the fall of Baghdad.

How to educate youth in times like this? Friedman says "the bottom must be raised to average," largely through the three R's: reading, 'riting and 'rithmetic, and "average must be raised to global heights," through an emphasis on creativity, collaboration and communication.

He had four bits of advice for kids today: think like an immigrant, think like an artisan, think like Amazon.com founder Jeff Bezos and think like the waitress at his beloved Perkins Restaurant on the outskirts of Minneapolis.

An immigrant survives by surveying his new surroundings accurately for opportunity and out-working the competition. An artisan's every creation is a one-off and often includes the maker's initials, a sign of pride of authorship. Bezos, says Friedman, is the ultimate starter-upper. Adopting his habits of mind involves "always thinking in beta-mode, engineering, learning, re-engineering and re-learning for the rest of your life. If you ever think you're finished, you're truly finished."

The waitress can't control much in her world, but on Sunday morning at 9 when she brings Friedman and his best friend an extra helping of fruit, she has done what she can within her constraints to add quality to the experience. She has thought entrepreneurially.

In a Q&A session that followed his talk, Friedman added the value of another sub-lecture. "What about people who are below average?" a woman asked. "Everyone is above average at something," Friedman said. "I think everyone has a skill, even in mundane tasks." For example, he said he would gladly have paid more to the caregiver who took care of his ailing mother if that worker had the gift of making his mom smile.

How did America become the once-great nation



At a post-lecture reception in the NIH Library, Friedman (r) chats with guests.

PHOTOS: ERNIE BRANSON



Friedman accepted the Rall lectureship plaque from NIH director Dr. Francis Collins (l) and Dr. Michael Gottesman, NIH deputy director for intramural research.



we now see withering around us? Friedman said the U.S. adopted a largely unwritten industrial policy with 5 key features: educate up to and beyond our technical needs; commit to having the world's best infrastructure; establish the world's most open immigration policy; create the best rules and institutions; support the most government-funded research, to push out the boundaries of knowledge (here a nascent hooray could be felt throughout Masur Auditorium).

On each of those 5 points, Friedman delivered punch-line report cards: We are now 25th in the world in high school science and math test scores, we treat immigrants abominably, our infrastructure is crumbling ("Flying from China into LAX [Los Angeles] is like going from the Jetsons to the Flintstones," he quipped.), our financial institutions are poorly regulated and the funding curve for government-sponsored research "looks like an EKG headed for a heart attack," he said.


"Either we get back to [the halcyon days]," he warned, "or we may turn out to be the first generation that does not pass on a higher standard of living to our kids."

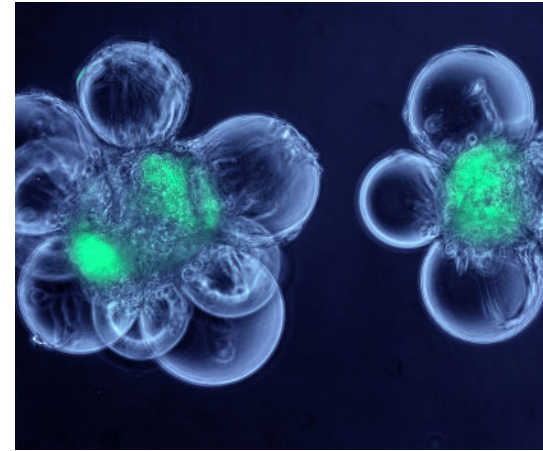
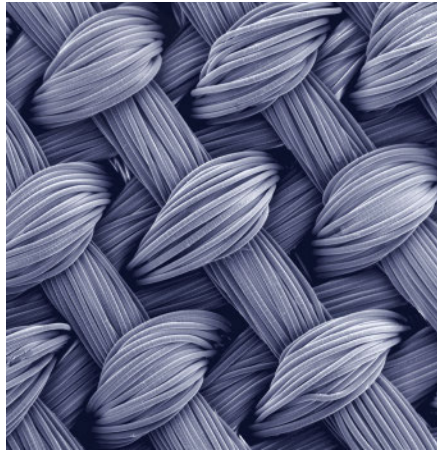
Friedman rejected the notion that the world can be divided into developed vs. nondeveloped nations. Rather, there are countries that are "high imagination-enabling" and low imagination-enabling. He envisions an America that is the world's launching pad for innovation.

His prescription for education reform was born, he said, within his own household; both his wife and daughter are teachers.

"The biggest educational philanthropists in the country today are public school teachers," he declared. He said America ought to emulate Korea and Singapore, where teachers are recruited from the top third of their classes. He also suggested that public school teachers pay no federal income tax as a way of redressing their chronic underpayment.

He concluded with a call for collective action that forms the theme of his book; our problems are too broad for address by a single group. "We need better parents and neighbors and business leaders, better students and better politicians...We cannot outsource our problems. It's a national challenge we all have to be enlisted in."

The entire talk is archived at <http://videocast.nih.gov/summary.asp?Live=11316>. 



### Winning 'Bio-Art' Images Displayed at NIH

*The laboratory-based scientific images of NIH grantees are being featured this summer in an art exhibit at the Visitor Center in Bldg. 45. The Federation of American Societies for Experimental Biology (FASEB) selected the winning images in its Bio-Art competition. Each image includes a 100-word statement in layman's language explaining its significance. FASEB believes the images are an important, yet underutilized, resource in the scientific community's effort to engage and educate the public and policy makers about biomedical research. The image above (l) shows a biomaterial scaffold used to generate replacement cartilage. It was produced by Frank Moutos and Farshad Guilak, NIAMS grantees at Duke University Medical Center. At right is a micrograph taken by Douglas B. Cowan, an NHLBI grantee at Harvard Medical School. It shows cells called myoblasts attached to spherical microcarriers, which allow the growth of adult stem cells that have been isolated from skeletal muscle. The image was produced in the course of studies aimed at creating artificial "stem cell factories." Three of the 10 winning images are on display in Bldg. 45. Other Bio-Art winners will rotate through both Bldg. 45 and exhibit space in the Clinical Center later this summer.*

### NCI, Local Cancer Centers Host Community Health Expo

NCI will host a Community Health Expo—Our Families, Our Research, Our Future on Saturday, July 14, 10 a.m. to 3 p.m. at the Silver Spring Civic Bldg., 1 Veterans Pl., Silver Spring, Md. The expo is co-sponsored by NCI's Center to Reduce Cancer Health Disparities and Center for Cancer Genomics, Georgetown Lombardi Comprehensive Cancer Center, George Washington University Cancer Institute, Howard University Cancer Center and Johns Hopkins Sidney Kimmel Comprehensive Cancer Center, in partnership with several other national and community health organizations.

The goal of this family-friendly, free event—geared to those living in the national capital area of Maryland, Virginia and the District of Columbia—is to heighten awareness of how to live a healthy lifestyle and prevent cancer. The event is unique in that activities, information and resources will be tailored to racially and ethnically diverse communities, which experience higher-than-average incidences and death rates from breast, colon, lung and prostate cancers.

The expo will feature a variety of hands-on exhibits that promise to be educational and appealing to adults and children alike. Attendees will have the opportunity to listen to scientists present a behind-the-scenes look at cancer biospecimen research, obtain information on research participation, get free health screenings, watch healthy cooking and fun physical activity demonstrations, learn about prevention and treatment of cancer and other diseases and check out a Youth Science Fair. Scientists and physicians will also be available to answer questions and offer guidance about careers in science and health.

For more information, contact Dr. Mary Ann Van Duyn at [MaryAnn.VanDuyn@nih.gov](mailto:MaryAnn.VanDuyn@nih.gov) or (301) 496-8589, or visit [www.cancermeetings.org/expo2012](http://www.cancermeetings.org/expo2012).



## ACD MEETING

CONTINUED FROM PAGE 1

### Above:

At left, ACD member Dr. Reed Tuckson, executive vice president and chief of medical affairs for UnitedHealth Group, makes a point.

At right, NIH'ers (from l) Dr. Michael Gottesman, NIH deputy director for intramural research; Dr. Sally Rockey, NIH deputy director for extramural research; and Tabak listen as Collins (r) outlines economic realities facing the agency.

PHOTOS: BILL BRANSON

hard work, energy and the effective individual and team efforts of our remarkable biomedical research workforce...It is an absolute pleasure and privilege to be able to stand at the helm of this organization—the largest supporter of biomedical research in the world—and see how those resources are being put to remarkable use.”

Collins also touched on recent important developments in Alzheimer’s disease research. “There has been a lot of exciting science happening in just the last year or so,” he said. “A lot of attention is coming toward this as people are begin-

***“NIH continues to enjoy strong bipartisan support among members of Congress. The rub, of course, is that we are in an unprecedented fiscal and economic situation.”***

ning to notice that the society is aging and both the personal and economic costs of Alzheimer’s disease loom very large indeed.”

Still, Collins said, as exciting as all of the science news is, NIH enthusiasts also continue to face a sobering reality.

“It’s sometimes a bit challenging,” he told the assembly, “because we are in this paradoxical situation where we have the best opportunities for scientific progress and medical progress that we’ve ever had, but we are also historically in one of the most difficult situations that any people who’ve been here for a long time can remember in terms of resources.”

Collins called on Pat White, NIH associate director for legislative policy and analysis, to give a snapshot of the congressional and outreach front. White talked about the spring appropriations hearings, Collins’s then-upcoming testimony before the house health subcommittee and the fiscal year 2013 sequestration scenario.

Prompted by Collins, White also made note of how determined the director is to get NIH’s story heard by the right ears. Since January 2011,

Collins has had face-to-face meetings with at least 150 members of Congress, “and that’s not including hearings or the impromptu meetings at airports Dr. Collins seems so good at,” White quipped.

He concluded by reiterating the most recent success of NIH research and its economic return. “We seem to be in the midst of a minor boomlet on Capitol Hill in terms of members’ receptivity to the message that Dr. Collins and others in the stakeholder community have been able to offer,” White said. “NIH continues to

enjoy strong bipartisan support among members of Congress. The rub, of course, is that we are in an unprecedented fiscal and economic situation.”

Neil Shapiro, NIH associate director for budget, was next up. He gave the “big picture numbers of what NIH actually received from Congress for FY12,” which began with five continuing resolutions between Oct. 1 and Dec. 31. Three of the CRs lasted less than 1 week.

NIH “wound up with about \$30.86 billion,” he said, adding that overall, the agency is bracing for a flat budget for 2013.

In response to a question about how the budget is keeping up with inflation, Collins said, “We lost purchasing power in 2012 and we’ve lost purchasing power in every single year since 2003. Altogether we’re down about 20 percent in terms of what our money can actually buy for research.”

The director also updated members on NIH’s recent talent searches.

Morehouse’s Dr. Gary Gibbons will join NIH as





*ACD members Dr. Shirley Tilghman (l) of Princeton University and Dr. Cato Laurencin of the Institute for Regenerative Engineering chat during a break.*

director of NHLBI in early August. A new search for an NIGMS director is under way; the quest for the first permanent NCATS director continues as well. Deborah Chew, who comes to NIH by way of the IRS, began as new director of the Office of Equal Opportunity and Diversity Management. Collins said we have reached the interview phase in the hunt for directors of the Center for Scientific Review, the Office of Research on Women's Health and the Office of Disease Prevention.

Over the course of 1½ days, the ACD session also featured reports from work groups on four topics: the biomedical workforce, diversity in the biomedical research workforce, data and informatics and stem cells. Meeting documents, reports and webcast links are posted online at <http://acd.od.nih.gov/meetings.htm#june2012>.

Collins ended his opening remarks by demonstrating a new web site, Impact, which debuted June 14 and offers users details about the “economic and health impact of what we do.” By clicking on certain links, readers can find out exactly how much NIH invests in their individual communities. The URL is [www.nih.gov/about/impact/](http://www.nih.gov/about/impact/).

As he has for the past few ACD gatherings, Collins again asked members for creative suggestions on ways “to expand efforts to get our story out there, because it’s a very compelling story—both in terms of what we do for human health and what we do for the economy.”

## New ITAS Login Process: HHS ID Badge and PIN Began July 2

The Integrated Time and Attendance System (ITAS) transition to smart card login took place on July 2. An HHS ID badge (PIV card) and personal identification number (PIN) are now required to access ITAS instead of a username and password.

Try logging in with your HHS ID badge and PIN so that any issues can be resolved before you need to conduct business in ITAS. If you cannot access ITAS, you will not be able to enter leave requests, sign in or out for credit hours or overtime, verify your timecard before it is sent for payroll or approve leave or timecards.

If you have trouble logging in, contact the NIH IT service desk at (301) 496-4357 or submit a ticket online at <http://itservicedesk.nih.gov/support>.

In order to log in with your HHS ID badge and PIN, you will need: An HHS ID badge; a smart card reader; your 6, 7 or 8 digit PIN; and active digital certificates.

### FAQs

*Do I have to renew my PIN every 60 days like my password?*

No. Your PIN never expires. You only change your PIN if you forget it or if you want to change it.

*What do I do if I have forgotten my PIN?*

If you have forgotten your PIN you can reset it at a Lifecycle Workstation near you: [www.ors.od.nih.gov/ser/dpsac/badge/Pages/lifecycle.aspx](http://www.ors.od.nih.gov/ser/dpsac/badge/Pages/lifecycle.aspx).

*How do I renew my digital certificates?*

For guidance on renewing your digital certificates, you can find steps in the “How to Renew Your Digital Certificates” guide posted at [www.ors.od.nih.gov/ser/dpsac/Pages/Continued-Implementation-of-HSPD-12.aspx](http://www.ors.od.nih.gov/ser/dpsac/Pages/Continued-Implementation-of-HSPD-12.aspx).

*What if I do not have an HHS ID badge?*

If you are waiting for your badge to be issued, you will receive a temporary exemption and be able to log in with your username and password until you receive your HHS ID badge. If you will not be issued a badge, you will receive a permanent exemption and be able to log in with your username and password.



## NIGMS Scientific Review Office Adds Two

*NIGMS recently welcomed two new scientific review officers to its Office of Scientific Review. Dr. Robert Horowitz (l) coordinates review of Support of Competitive Research (SCORE) program as well as other research and research training grant applications. Before joining NIGMS, he was a tenured senior investigator in*

*the Laboratory of Muscle Biology at NIAMS, where his research focused on the basic molecular mechanisms involved in the development and function of the heart and skeletal muscles. Horowitz earned a B.S. in biology from Rensselaer Polytechnic Institute and a Ph.D. in physiology from the University of Pennsylvania. He conducted post-doctoral research at NIAMS and NIDDK. Dr. Lisa Newman (r) handles the review of Institutional Development Award (IDeA), clinical research and research training grant applications. Prior to coming to NIGMS, she was a scientific review officer at the former NCRR. After its dissolution, she held a similar position for a short time at NIMHD. Newman earned B.S. and M.A. degrees in speech from Northwestern University and an Sc.D. in communication sciences and disorders from Boston University. She conducted postdoctoral research at Northwestern University.*

## BERKLEY

CONTINUED FROM PAGE 1

### Right:

Berkley accepts the LaMontagne lectureship plaque from NIAID director Dr. Anthony Fauci.

PHOTOS: BILL BRANSON



*"The good news [in global health] has been...a huge reduction in child deaths around the world. We've seen a decline from greater than 12 million deaths in 1990 to 7.6 million in 2010," said Berkley.*

ing vaccines for...deadly diseases to children in the poorest countries in the world, something that was near and dear to John's heart," said Dr. Anthony Fauci, director of NIAID. LaMontagne, former deputy director of NIAID, collaborated on the predecessor to the GAVI Alliance and helped develop vaccines for pertussis and childhood diarrhea.

"It's an extraordinary history of vaccinology," said Berkley. "We started a long time ago and over time we have seen an acceleration of different antigens that exist for infectious diseases. The challenge was that these vaccines weren't being made available to people who need them most."

The GAVI Alliance addresses this problem by helping increase access to immunization in poor countries. A public-private partnership founded in 2000, GAVI's mission is to save children's lives and protect people's health by pulling together in one decision-making body the special skills of the main players in immunization: WHO, UNICEF, the World Bank, the Bill & Melinda Gates Foundation, donor governments, developing countries, non-governmental organizations, the pharmaceutical industry and other corporate and foundation partners. This has brought a single-minded focus to the task of delivering vaccines to developing countries and helping ensure a stable and secure vaccine market.

"The good news [in global health] has been...a huge reduction in child deaths around the world. We've seen a decline from greater than 12 million deaths in 1990 to 7.6 million in 2010," said Berkley, and the decline in mortality is accelerating. "The bad news is we're still seeing 21,000 children die each day." Most of these deaths are in sub-Saharan Africa and Southern Asia, with pneumonia and diarrhea responsible for a large percentage of childhood mortality.

"GAVI's immunized over 326 million children, contributing to preventing over 5.5 million future deaths, and accelerated vaccine introduction in over 70 countries," Berkley reported.

Work remains in ensuring access to vaccinations, as more than 19 million children, largely in India, are missing out on immunization. India, which has emerged as one of the world's largest manufacturers of vaccines, illustrates the role political will plays in ensuring access. Yet, as governments co-finance vaccinations on a sliding scale with the GAVI Alliance,



immunization programs may increase government investment in health care.

The benefits of vaccination, Berkley said, extend beyond saving lives. In the U.S., evidence suggests that vaccinations result in less time spent caring for sick children by family members, herd immunity and trade and tourism benefits. The tangential benefits of vaccines are less documented in the developing world, but research shows that healthy children do better at school and require fewer out-of-pocket expenses, which can push families into poverty. Additionally, when parents believe their children will survive, fertility rates go down.

The benefits of vaccination are substantial, but challenges remain to ensuring universal access to immunization. "One of the challenges in doing this [immunization work] is the infrastructure in the countries," Berkley said. "Immunization is a wedge into the health system," and by strengthening immunization efforts, you strengthen outreach to the population. The GAVI Alliance and other health care organizations grapple with how you build on these interventions; the organization is working with the Global Fund to help integrate the provision of immunizations with treatment for AIDS, tuberculosis and other diseases.

A new challenge for the GAVI Alliance is that some anti-vaccine information is reaching developing countries. "We're beginning to see this misinformation spread from the West into the developing world," said Berkley, adding, "How do we fight the Internet?"

In some countries, such as Ethiopia, data on vaccination rates vary greatly and more surveillance is necessary. Other vaccinations present new challenges, such as providing multiple-dose HPV vaccinations to adolescent girls, who may be finished school and are hard to reach by health care programs.

You can view the lecture online at <http://video-cast.nih.gov/summary.asp?live=11173>. ①



## Psoriasis Patient-Advocates Tour NIH

Twelve patient-advocates from the National Psoriasis Foundation (NPF) met with NIAMS scientists during a recent visit to NIH to learn more about the biomedical research process as part of NPF's 2012 Capitol Hill Day. During the day, patients and their families also met with members of Congress to request continued support for psoriasis research.

Anita Linde, NIAMS director of the Office of Science Policy, Planning and Communications, greeted the group and provided a brief overview of the mission and structure of NIH and NIAMS. "Patients and their advocates are core partners for this institute," she said. "Many voices are engaged in the process of helping us to identify new scientific opportunities and decide what research to pursue."

Dr. John O'Shea, NIAMS scientific director, explained how recent discoveries in NIAMS labs have shed light on the genetic risk factors for psoriasis and also led to potential new treatments. He discussed how these advances allowed scientists to discover, unexpectedly, that people with psoriasis, ankylosing spondylitis and inflammatory bowel disease have shared genetic risk factors for these diseases. "I hope I can convey the excitement we have about the discoveries in basic research that can be translated into therapies for treating patients," he said. "We think this is an amazing time to be in science. We have made enormous progress. The challenge is we have to keep it up."

The group toured the NIAMS Laboratory of Skin Biology led by its chief, Dr. Maria Morasso, and postdoctoral fellow Dr. Olivier Duverger. They also toured the Laboratory of Muscle Stem Cells and Gene Regulation led by Dr. Vittorio Sartorelli, chief.

Morasso described how her team is able to use its research on mice to learn more about the genetic factors that cause psoriasis in humans. The guests were able to peer through a microscope to see skin cells from the hair follicles of a mouse model for psoriasis.

In his lab, Sartorelli demonstrated the latest technology for sequencing the human genome, which is helping researchers gain insight into the genetic factors that cause psoriasis and other diseases and the likelihood for developing these diseases. It also will enable clinicians to tailor the most effective treatments for individual patients. With the drastic decline in the cost of sequencing genomes, it will make it easier to diagnose, manage and treat many diseases. With improved technology and reagents, Sar-




*NIAMS staff met with 12 patient-advocates from the National Psoriasis Foundation during their recent visit to NIH to learn about the biomedical research process.*

torelli pointed out that the cost of sequencing an individual's genome will be cut to \$1,000 or less in the near future.

After the lab tours and presentations, many in the group said they were encouraged by the passion and commitment of the NIAMS scientists and excited to see the progress being made in psoriasis research at NIAMS.

"This is unbelievable," said one visitor. "There's so much research going on. I like to be active, so I am thankful for the biologics. Now that I know more about the science, I can be a better advocate. NIH funds will help improve what we know about the disease and can help people get diagnosed sooner."

"It was profoundly moving," said another visitor. "I was really touched by the way the scientists see their work as a labor of love. It benefits our lives and the people we care about." 

## FAES Announces Fall 2012 Courses

The FAES Graduate School at NIH announces the schedule of courses for the fall 2012 semester. The majority of the evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Courses are offered in biochemistry, bioinformatics, biology, biotechnology (daytime courses), chemistry, immunology, languages, medicine, microbiology, pharmacology, statistics, technology transfer, alternative medicine, GRE and courses of general interest. Certificates in technology transfer and public health programs are also being offered.

It is possible to transfer credits earned towards degree work at other institutions with their approval.

Classes will begin the week of Sept. 10. Online registration is now through Aug. 17 and mail registration ends Aug. 17. Walk-in registration will be held Aug. 27-Sept. 5 and at an open house at the FAES Social and Academic Center on Aug. 21 from 4 to 7 p.m. Tuition is \$145 per credit hour and courses may be taken for credit or audit. Courses that qualify for institute support as training should be cleared with supervisors and administrative officers as soon as possible. Both the vendor's copy of the training form (SF-182) and the FAES registration form must be submitted at the time of registration.

Catalogs are available in the graduate school office in Bldg. 60, Suite 230; the Foundation Bookstore in Bldg. 10, Rm. B1L101; and the business office in Bldg. 10, Rm. B1C18. To have a catalog sent, call (301) 496-7976 or visit [www.faes.org](http://www.faes.org).

## For Young Children with Autism, Directing Attention Boosts Language

An intervention in which adults actively engaged the attention of preschool children with autism by pointing to toys and using other gestures to focus their attention results in a long-term increase in language skills, according to researchers supported by NIH.

At age 8, children with autism who received therapy centered on sharing attention and play when they were 3 or 4 years old had stronger vocabularies and more advanced language skills than did children who received standard therapy. All of the children in the study attended preschool for 30 hours each week.

"Some studies have indicated that such pre-verbal interactions provide the foundation for building later language skills," said Dr. Alice Kau of the Intellectual and Developmental Disabilities Branch, NICHD. "This study confirms that intensive therapy to engage the attention of young children with autism helps them acquire language faster and build lasting language skills."

The study findings appeared in the *Journal of the American Academy of Child and Adolescent Psychiatry*.

## Adding Drug to HIV Regimen Halves Newborn Transmission Rate

Adding the drug nevirapine to the regimen given to newborns of women diagnosed with HIV shortly before or during labor halves the newborns' risk of contracting the virus, according to findings by an NIH research network.

The researchers found that the rate of mother-to-child HIV transmission around the time of delivery was 2.2 percent among infants who received the standard drug zidovudine combined with nevirapine, compared with 4.8 percent among infants treated with zidovudine alone.

The researchers also found a reduced rate of transmission (2.4 percent) among infants treated with a three-drug combination: zidovudine, nelfinavir and lamivudine. However, infants given the two-drug combination were less likely to have neutropenia than were those on the three drug regimen. (Neutropenia is a blood disorder consisting of low levels of neutrophils, a type of infection-fighting white blood cell.) The two-

drug combination is also less expensive and easier to administer than the three-drug combination.

"Pregnant women who don't know they have HIV or those who don't come in for prenatal care may not get the early treatment needed to keep the virus from being passed on to the baby," said study author Dr. Heather Watts of the Pediatric, Adolescent and Maternal AIDS Branch, NICHD. "Our findings show that even in these situations, many, many infant cases of HIV can be prevented with the two-drug combination treatment."

The findings appeared in the *New England Journal of Medicine*.

## Weight-Loss Surgery Increases Alcohol Use Disorders over Time

Adults who had a common bariatric surgery to lose weight had a significantly higher risk of alcohol use disorders (AUD) 2 years after surgery, according to a study by an NIH research consortium.

Researchers investigated alcohol consumption and alcohol use disorders symptoms in 1,945 participants from the NIH-funded Longitudinal Assessment of Bariatric Surgery, a prospective study of patients undergoing weight-loss surgery at one of 10 hospitals across the United States. Within 30 days before surgery, and again 1 and 2 years after surgery, study participants completed the Alcohol Use Disorders Identification test (AUDIT). The test, developed by the World Health Organization, identifies symptoms of alcohol use disorders, a condition that includes alcohol abuse and dependence, commonly known as alcoholism.

Study participants were categorized as having AUD if they had at least one symptom of alcohol dependence, which included not being able to stop drinking once started, or alcohol-related harm, which included not being able to remember, or if their total AUDIT score was at least 8 (out of 40).

Although AUD prior to surgery was one of the strongest predictors of AUD after surgery, more than half of study participants with AUD after surgery did not report having the condition during the year before surgery. Men and younger adults were also more likely to develop AUD.

The study appeared in *JAMA's* June 20 issue.



*An intervention in which adults actively engaged the attention of autistic preschoolers by pointing to toys and using other gestures to focus their attention results in a long-term increase in language skills.*





*Future leaders joined their hosts on the NIEHS patio.*

PHOTO: STEVE MCCAWE

## Future NIH Management Leaders Visit NIEHS

A cadre of future NIH science management and policy leaders made a trek recently from Bethesda to North Carolina. Eighteen Presidential management fellows and NIH management interns traveled to NIEHS to learn about the institute and its programs and speak with staff about potential intern rotations.

The Presidential Management Fellowship is a federal government-wide program that NIH has participated in since 1985. PMFs develop rotational assignments across the various institutes and centers in a broad range of administrative and research support areas including budget and finance, outreach and communications, information technology, grants management, program and management analysis, contracts management, human resources and general administration.

The NIH Management Intern Program was established in 1957 and has trained more than 400 interns. The program offers the opportunity for highly motivated employees to explore different administrative fields, gain invaluable insight into science management and change careers within NIH.

During their visit, the future management leaders were given an overview of NIEHS history and current strategic planning efforts and viewed a video on the field of environmental health, created by the American Public Health Association for the 100th anniversary of its environment section, which features many NIEHS grantees. The visitors then had an opportunity to meet and hear the career stories of former PMFs and MIs who are now working at NIEHS.

After a walking tour of the institute and lunch in the cafeteria, the interns learned about some of the institute's unique programs through presentations by senior staff. The day was rounded out with a presentation and driving tour of the area.

NIEHS Executive Officer Joellen Austin, whose office sponsored the trip, says that the visit was important. "It provides up-and-coming leaders at NIH insight into who we are and what we do here that they might not otherwise get because we're not on NIH's main campus," she said. "It's a good recruitment tool as well as another way to keep NIEHS integrated with all of the other NIH ICs."—Kimberly Thigpen Tart

## O'Mara Receives Bonica Award

*Dr. Ann O'Mara recently received the John and Emma Bonica Public Service Award from the American Pain Society. The award recognizes outstanding contributions by an individual or an organization to the field of pain through public education, dissemination of information, public service or other efforts to further knowledge about pain. O'Mara is head of palliative research in the Division of Cancer Prevention, NCI. She manages a portfolio of symptom management and palliative and end-of-life care research projects. Most of these projects are focused on the more common morbidities associated with cancer and its treatment including pain, chemotherapy-induced neuropathy, fatigue, sleep disturbances and psychosocial issues such as distress, anxiety and depression. She has conducted research on end-of-life care and education of nurses and physicians about palliative care. Her publications have focused primarily on quality-of-life issues facing patients with cancer and their families across the disease trajectory.*



## Research Study Volunteers Needed

Do you drink alcohol? Drink daily or almost daily? Are you between the ages of 21 and 60? NIAAA is seeking men and women to study whether a medication for smoking cessation (Chantix) may affect drinking. Volunteers should be healthy and drug-free. Qualified subjects will be reimbursed for their participation. The study lasts 9 weeks and requires 5 outpatient visits and one overnight visit at the Clinical Center. For more details, call (301) 496-7500. Refer to study 08-AA-0137.

## Premenstrual Syndrome Research Studies

Women ages 18-50 who struggle with irritability, anxiety or sadness prior to menstruation are invited to participate in outpatient research studies. There is no cost for participation. Compensation may be provided. Phone (301) 496-9576 and refer to study 81-M-0126.

## Postpartum Depression Research Studies

Women ages 18-45 who struggle with postpartum depression or who had PPD in the past are invited to participate in outpatient research studies. There is no cost for participation. Compensation may be provided. Call (301) 496-9576 (TTY 1-866-411-1010) and refer to study 03-M-0138.

## Overweight Volunteers Needed

NICHD is looking for men and women ages 35-70 who are overweight and have abnormal glucose levels. After an initial screening visit for general health assessment, participants will undergo treatment with a cortisol-blocking medication (mifepristone) or a non-active pill (placebo) for 7 days. Each participant will take both study agents with a gap of 6 to 8 weeks between the two. Testing before and after treatment with the study medications will include blood drawing over 24 hours, urine collection, an oral and an intravenous glucose tolerance test and 1- to 2-day overnight inpatient stay. Compensation will be provided. For more information, call 1-800-411-1222 (TTY 1-866-411-1010) and refer to study 11-CH-0208.



## A Work in Progress Porter Neuroscience Center Phase II Goes Up

Since late summer 2010, when groundbreaking was set to begin on the final phase of Bldg. 35—Porter Neuroscience Research Center part 2 (a.k.a. PNRC II)—the corner of Lincoln Dr. and Convent Dr. has been transformed. Images documenting the changes since spring 2011 were captured by Dr. Daniel Edelman, facility head of the Clinical Molecular Profiling Core in NCI's Advanced Technology Center. His office is in Gaithersburg, but half of his lab is in a building adjacent to Porter construction.

"Over the many months that Bldg. 35 has been going up, I have snapped a picture from time to time using my BlackBerry of the construction from the same window on the sixth floor of Bldg. 37," he says.

To see more images of the building in progress, visit the *NIH Record* gallery online. A story on construction progress with predictions on completion and move-in dates is in the works with Frank Kutlak, a project officer with the Office of Research Services.

If you have images to share of some aspect of NIH worklife, send them to the *Record*. We may publish them. Digital images must be high-resolution (300 dpi or greater). Historical photos are also welcome as hi-res scans. Include date, place, photographer's name and other relevant details.



### **Above:**

*At left, Mar. 22, 2011—Initial structural footings and basement columns are placed; right, May 16, 2011—Visible are second floor framing, first floor slab framing and ground floor concrete slab framing.*

### **Below:**

*Left, June 20, 2011—Second floor slab framing; right: Aug. 4, 2011—Third floor slab framing*



**Above:** *Left, Nov. 2, 2011—Mechanical penthouse steel framing being erected; right, Jan. 9, 2012—Sheathing being applied to mechanical penthouse and south exterior walls*

**Below:** *Left, Mar. 1, 2012—Metal panel exterior being applied to mechanical penthouse; the lighter color is the vapor barrier sealer applied to the sheathing; right, June 13, 2012—Air handler louvers installed in openings of mechanical penthouse*

PHOTOS: DANIEL EDELMAN

