



ABOVE • Santa arrived by motorcycle at the Children's Inn at NIH and got a warm welcome. See p. 11.

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nih record

'Guided by Science'

President Obama Visits NIH, Touts Progress in Ebola Vaccine Effort

By Carla Garnett

In his Dec. 2 visit to NIH, President Barack Obama revealed two things about his approach to problem-solving: The U.S. will respond with compassion and science will lead the way. He used his time at what he calls "America's laboratory" to congratulate scientists for delivering a potential Ebola vaccine and to champion scientific research once again as the nation's most powerful weapon against global health threats.



President Obama at NIH Dec. 2 90 minutes on campus.

"One of the things that has always marked us as exceptional is our leadership in science and our leadership in research," the President said. "Here at NIH, you have always

SEE **PRESIDENT**, PAGE 6



NIH director Dr. Francis Collins (l) at ACD

'A Hot One'

ACD Highlights Support for IRP, Deems NCS Infeasible

By Rich McManus

Not all biannual meetings of the advisory committee to the NIH director (ACD) are created equal, and the 109th version, held Dec. 11-12, lived up to NIH director Dr. Francis Collins's prediction that it would be "a hot one." Amid a welter of reports drawing impassioned comments, the NIH Intramural Research Program

SEE **ACD**, PAGE 4

NIH Observes Domestic Violence, Bullying Awareness Month

By Eric Bock

"A fourth of all men and a third of all women will be raped or stalked by an intimate partner in their lifetime. And nearly half of all men and



NIAAA's Dr. Ted George

women experience psychological aggression by an intimate partner in their lifetime," said NIH principal deputy director Dr. Lawrence Tabak. "The statistics are sobering."

Tabak gave opening remarks at "Respect Is the Word—Join the Conversation," a

day-long discussion of intimate partner violence and bullying. The event featured presentations about the biology of violence,

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briefs



NIH Salutes Alumna Ozarin's Centennial

Dr. Lucy Ozarin (l), a former NIH employee and longtime volunteer at NIH, was recently saluted on the occasion of her 100th birthday. John Burklow, NIH associate director for communications and public liaison, presented her with a plaque at a recent meeting of the community liaison council, on which Ozarin has served since its inception in 1995. Ozarin has also been a volunteer at the National Library of Medicine since she turned 90. She was the first female psychiatrist in the U.S. Navy and later worked at NIMH from 1957 until her retirement in 1981. For more about her remarkable life, visit <http://infocus.nlm.nih.gov/2012/08/dr-lucy-ozarin-nlm-volunteer-e.html>.

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NIH Record Office Bldg, 31, Rm. 5B41
Phone (301) 496-2125 Fax (301) 402-1485

Web address <http://nihrecord.nih.gov/>

Editor
Richard McManus
Rich.McManus@nih.gov

Associate Editor
Carla Garnett
Carla.Garnett@nih.gov

Staff Writers
Eric Bock
Eric.Bock@nih.gov

Dana Talesnik
Dana.Talesnik@nih.gov

Belle Waring
Belle.Waring@nih.gov

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Gala Benefits Friends of Patients at the NIH

Friends of Patients at the NIH—formerly known as Friends of the Clinical Center—recently celebrated its 30th anniversary of delivering emergency financial assistance to patients (and their family members) participating in research at NIH. Held at the Chevy Chase Acura showroom in downtown Bethesda, the gala attracted a host of officials including NIH director Dr. Francis Collins (above, third from l), Clinical Center director Dr. John Gallin and NIAID director Dr. Anthony Fauci. Also on hand were Friends board members Charles Butler (l) and Randy Schools (r), who is president of the R&W Association. They were joined by Heidi Grolig, CEO of Friends. Since 1984, Friends has provided thousands of Clinical Center patients and families with financial and temporary housing aid, quality of life assistance and logistical support so they can stay focused on recovery, healing and fulfilling their role in advancing knowledge, discoveries and breakthroughs. To learn more, visit FriendsatNIH.org.

Next Protocol Navigation Lecture, Jan. 5

The IRP Protocol Navigation Training Program Seminar Series continues with a lecture to be held Monday, Jan. 5 from 2 to 3 p.m. in Bldg. 50, Conf. Rm. 1227/1328. The program is a trans-NIH effort to develop resources and tools and to provide training for intramural staff and contractors involved in protocol development, writing, coordination and management. Katherine W. Todman and Carol J. Squires, clinical research advocates with the NIMH human subjects protection unit, will present "Elements of an Informed Consent." For more information contact Marcia Vital, (301) 451-9437, vitalm@mail.nih.gov.

NIH Proposes Master Plan for Bethesda Campus

While no one can predict what the NIH campus will look like in 2033, the Office of Research Facilities has proposed a 20-year master plan (using 2013 as a baseline) that envisions the middle of three possibilities: stay the same, grow slow or put the pedal to the metal.

Conceding that everything within a nearly 500-page Bethesda Campus Master Plan is contingent on future budgets, opportunities and policy, ORF has nonetheless gazed into the crystal ball and made some reasoned forecasts.

Currently, federal agencies are being pressured to reduce operating costs and NIH's highest operating cost is leased space. So the "proposed action alternative" in the master plan calls for transforming obsolete research buildings into administrative space. The next priority is to replace unusable or outdated facilities with new ones. To meet these goals, NIH is proposing to:

- Increase the campus workforce by 3,000 employees and contractors, which would bump the current total of 20,594 up to 23,594. The impact on morning and evening rushes is predicted to be around 12 percent more NIH vehicles. When taking into account that NIH's contribution to local traffic constitutes only about 25 percent of the traffic, the impact is estimated to be 3 percent. Also, by then, mass transit developments such as the Purple Line and bus rapid transit might well be in place, thereby offsetting the congestion effects.

- Construct an estimated 17 new and replacement buildings for administrative and support space for an approximate additional 4.5 million gross square feet (GSF). This includes three new parking garages. Bldg. 31 would be demolished in favor of an IC headquarters—Bldg. 21—of about 600,000 GSF. Of the new buildings, 5 are scheduled for intramural research. The new buildings are projected to be approximately 1.6 million GSF of new laboratory and research support space.

- Stabilize approximately 500,000 GSF of space in the old Clinical Center complex to prepare it for adaptive reuse, in addition to the 2,900,000 GSF scheduled to be renovated already.

- Convert Bldgs. 4, 5, 8 and 30 to administrative space.

- Continue upgrading and modernizing program for utilities and infrastructure, particularly the central heating and refrigeration plant, campus steam, chilled water and electric power distribution systems.

- Replace housing and care facilities for animals used in research with state-of-the-art facilities that satisfy modern design, accreditation and program requirements.

- Consolidate surface parking into multiple-level parking structures.

- Reorganize the physical facilities on campus to improve research program functions, raise the aesthetic level or ambience and protect older campus buildings of historic value.

- Construct expanded child care facilities for employees and other amenities including small-scale retail and food services.

- Demolish an approximate 1.5 million GSF including the Bldg. 21 campus waste treatment, storage and disposal facilities.

- Enhance the natural buffer zone around the periphery of campus by removing surface parking and increasing landscape plantings.

Details of the plan include adding conference and cafeteria space to Bldg. 1 and building an NIH Data Center, police station and Natcher II addition. The master plan is also geek heaven for NIH trivia buffs, who can discover that portions of the west part of campus drain not into Rock Creek but Booze Creek.

The entire master plan and its associated Final Environmental Impact Statement (FEIS) are available online at <http://nems.nih.gov/Pages/nepa.aspx>. A 30-day comment period for the FEIS ends Jan. 5; comments may be sent to nihnepa@mail.nih.gov or Valerie Nottingham in Bldg. 13, Rm. 2S11.—**Rich McManus** 📧



'Hornsapienty' Performs Holiday Music at CRC

The National Symphony Orchestra's "Hornsapienty" entertained employees, patients and visitors at the Clinical Research Center atrium on Dec. 9. The hour-long performance of holiday music included members of the U.S. Marine Band. Musician Amy Horn of the Marine Band led the audience in a sing-along. The Clinical Center and the Foundation for Advanced Education in the Sciences presented the event, part of the NSO Sound Health initiative, which brings orchestral music to area hospitals and medical centers.

PHOTO: RICHARD BARNES

Special Briefing on IOM Report, Jan. 12

NINR will host a briefing on the Institute of Medicine report *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life* on Monday, Jan. 12 from 1 to 2:30 p.m. in Natcher Bldg., Rm. D.

The briefing will review the report's recommendations, explore possible next steps and barriers to implementation and provide an opportunity for stakeholder groups to discuss the impact of the *Dying in America* report in regard to end-of-life and palliative care research. Due to limited seating, registration is required. For more information and to register, visit www.ninr.nih.gov/IOMbriefing.



ACD

CONTINUED FROM PAGE 1

Above:

Dr. Moncef Slaoui, chairman of research and development at GlaxoSmithKline, applauded NIH's creation of candidate Ebola vaccines and called for more of them, worldwide.

Below:

Collins (l) chats with Dr. Reed Tuckson, managing director of Tuckson Health Connections, who made the final appearance of his term as an ACD member. "NIH scientists really are underappreciated heroes," Tuckson said, "and I intend to carry on that message as loud as I can scream it."

PHOTOS: BILL BRANSON



gained a hearty endorsement while the embattled National Children's Study was closed down in favor of more nimble and focused investments to achieve its aims.

"The Intramural Research Program is a real treasure of our country," said Dr. Cato Laurencin of the University of Connecticut, who co-chaired the ACD working group charged with envisioning the IRP's next 10 years. "It is an extremely important and valuable resource. We were highly impressed by what we saw."

Nonetheless, Laurencin said, the standing of the IRP in the scientific community has decreased in the past 20 years and NIH "is not fully capitalizing" on the resources it has, most notably the Clinical Research Center. He got the impression that "the CRC is very much underutilized, in terms of patient beds, when we visited it." He also lamented that, while he did meet with NIH senior leadership from underrepresented groups, "I don't think I met one African-American or Hispanic principal investigator in my whole 4 months" of conducting the study.

The IRP should focus on "great scientific challenges," said Laurencin, whose group recommended a trans-NIH innovation fund of approximately 1 percent of the IRP budget.

Federal limitations on travel for NIH scientists work against recruitment and retention of the best intramural scientists, he warned. "We were told that for every dollar of travel cost, there was an associated administrative burden of a dollar—that is the triumph of bureaucracy over reason," Laurencin said.

Collins noted that the administrative burden for NIH travel involving some 200 employees in the past year was \$12 million. "All for zero added value—is that ridiculous or what?" he said. "It is offensive that [science-related travel] is perceived as a perk." The restrictions now in place "are not serving the needs of the country or anyone else."

On the meeting's second day, the ACD voted unanimously that the NCS, as currently outlined, is not feasible. Collins accepted the findings immediately and said that NIH would work

with the administration and Congress to discontinue the study. He appointed Dr. David Murray, director of NIH's Office of Disease Prevention, to begin closing the books on the study, which Congress had asked NIH to conduct in 2000. The study was supposed to enroll 100,000 children and follow them to age 21, but "encountered numerous roadblocks and hurdles" along the way, said Collins.

"It was seen as becoming all things to all people," said Collins, who also used the metaphor of a Christmas tree on which so many ornaments had been hung that the tree tipped over.

Collins had put the bulk of NCS, which has cost \$1.2 billion in the past 14 years, on hold last June while a working group led by Drs. Russ Altman and Phil Pizzo, both of Stanford University, studied its feasibility. The group commended the longitudinal study's aims, but cited excessive cost and flawed design as reasons to dissolve the effort.

Pizzo, former chief of NCI's Pediatric Branch and a pediatrician for 40 years, explained that the NCS was born at a time when the NIH budget was doubling; the pediatric community felt "this is our chance" to do something bold. But in the intervening years, science has raced ahead, leaving both NCS's size and tools behind.

"I mean, why not enroll 10 million people?" said Pizzo, noting that social media had not yet been invented when NCS was first built. Added Altman, "This study was designed before we all started saying 'microbiome' at the breakfast table."

Collins said he endorses strongly the principles that originally motivated the NCS. "It is not only meritorious, but also highly worthwhile," he said. But he recommended a diversity of approaches rather than a monolithic, single-study effort.

In other ACD items:

- In his presentation on the "perfect storm" of the Ebola crisis in West Africa, which is 6 times greater than all previous outbreaks combined, NIAID director Dr. Anthony Fauci offered a stark portrait of the failings of the medical infrastructure in that part of the world: "I didn't know what 'limited health infrastructure' meant until I realized that there are more doctors on a single floor of a building on K St. than there are in some whole countries in West Africa."

- The omnibus bill that funds NIH for FY 2015 has changed the name of the National Center for Complementary and Alternative Medicine to the National Center for Complementary and Integrative Health. The change took effect Dec. 17.



Dr. W. Ian Lipkin of Columbia University participates in a discussion on safety issues surrounding so-called “dual use research of concern,” warning that too many labs around the world are engaged in it. He also said he wouldn’t be surprised if smallpox virus were not confined, worldwide, to the two facilities allowed to have it.

- Collins announced that Bldg. 4 will be renamed in honor of former Sen. Lowell P. Weicker Jr. (D-CT) early in 2015. Weicker’s name had graced Bldg. 36 on campus since 1991, but that building was later demolished to make way for the Porter Neuroscience Research Center.

- Collins acknowledged the service of National Library of Medicine director Dr. Donald Lindberg, who will retire in March after having led NLM since 1984. “He has been an incredible leader over a long period of amazing growth,” said Collins. He also announced the formation of a new ACD working group charged with formulating a new vision for NLM over the next decade. It will be chaired by Dr. Harlan Krumholz of Yale University and NHGRI director Dr. Eric Green. 📍

Rubio Joins NIGMS Training Division

Dr. Mercedes Rubio is a new program director in the NIGMS Division of Training, Workforce Development and Diversity, where she primarily oversees research supplements to promote diversity in health-related research and supplements to promote re-entry into biomedical and behavioral research careers.

Before joining NIGMS, she was chief of NIMH’s psychopathology risk and protective factors research program and was assistant director of that institute’s individual research fellowship program. Rubio earned a B.A. in sociology from California State University, Bakersfield, and a Ph.D. in sociology from the University of Michigan, where she also completed postdoctoral training in the field of health disparities.



Children’s Inn CEO Russell Retires

The Children’s Inn at NIH opened its doors almost 25 years ago and Kathy Russell has been part of the organization since its inception—first serving on the board of directors and then as chief executive officer for the past 10 years. She retired at the end of 2014, after a tenure that included a major expansion that doubled the inn’s square footage, the establishment of Woodmont House—an off-campus transitional home for longer-term patients—significant playground and kitchen renovations and seamless shepherding of the nonprofit through the 2008 economic downturn.

“The common threads that run through Kathy’s remarkable, ongoing contributions are leadership, compassion and relationships,” said Dr. Lee Helman, chairman of the inn board. “Her passion to improve the lives of others is a shining example. She has made a difference in the lives of children and families from around the world that is deeply meaningful and enormously enduring.”

Russell began her career at NIH in 1982, as administrator for pediatrics at the National Cancer Institute. During the next several years, she assumed progressively responsible senior leadership positions

within NCI. She then went on to help establish an NCI-designated comprehensive cancer center at Georgetown University Medical Center and later served as the Lombardi Center’s associate director for planning and administration. In 2002, she was asked by Gov. Roy Barnes of Georgia to aid in the development of cancer programs in their state, utilizing funds derived from the tobacco settlement exceeding \$1 billion.

During the same period, in a volunteer capacity, Russell came to know of the psycho-social needs of cancer patients and their families and was part of the team effort and unique public-private partnership that brought the Children’s Inn into fruition in the late 1980s. Along with Dr. Philip Pizzo, who was chief of pediatric oncology at NIH, she had observed that parents were congregating with other families in the waiting rooms of the Clinical Center and forming support networks, often reluctant to leave and go back to their respective hotels. It was their concept to create a place on campus where families could stay together, for free, to facilitate healing through mutual support including therapeutic, recreational and educational programming.

“It’s been my life’s work to find ways to ease the burden of serious illness for both adults and children, as well as their families,” said Russell. “As the Children’s Inn approaches its 25th anniversary, it’s an important time to reflect on the journey and the accomplishments of the organization and the selection of a new leader to bring fresh ideas and energy to provide even more ways the inn can support pediatric patients and their families during life-threatening medical illness.”

Russell was recently featured in *People* magazine’s “Heroes Among Us” column. Read the full article at www.people.com/article/childrens-inn-nih-kathy-russell-heroes.



Visiting NIH last month, President Obama made Dr. Nancy Sullivan's lab in the Vaccine Research Center his first stop. Accompanying him were NIAID director Dr. Anthony Fauci and HHS Secretary Sylvia Burwell. Afterwards, the President addressed a Masur Auditorium crowd.

PHOTOS: BILL BRANSON, ERNIE BRANSON



PRESIDENT

CONTINUED FROM PAGE 1

been at the forefront of groundbreaking innovations.”

The visit was his second to NIH as President. In September 2009, during his first term, Obama came here to announce American Recovery and Reinvestment Act funds. Since then, he has continued to back up his interest in and commitment to scientific research with various funding mechanisms to benefit NIH.

“It’s wonderful to be back in America’s laboratory, even if I don’t always understand what you’re doing,” Obama joked, humorously reminding the audience that NIH director Dr. Francis Collins had promoted him to “scientist-

in-chief” during that 2009 visit.

The President thanked NIH and its partners for developing a candidate Ebola vaccine, which had just completed phase I clinical trials the previous week. “No potential Ebola vaccine has ever made it this far,” Obama pointed out.

The President also noted other progress in the epidemic. “A few months ago, only 13 states could test for Ebola,” he said. “Today 36 states can. Previously, there were only 3 facilities in the country deemed capable of treating an Ebola patient, including NIH. Today, we’re announcing that we now have 35” designated treatment centers.

16 Years in the Making

Ebola Vaccine Researcher Recalls ‘Logical March Forward’

Before a jovial President Obama took Masur Auditorium’s stage to talk to a house full of NIH employees and several patients who greeted him like a rock star, he dropped by Bldg. 40—NIAID’s Vaccine Research Center—to meet some of the scientists behind Ebola vaccine research and see some of their work firsthand.

Dr. Nancy Sullivan, chief of the VRC’s biodefense research section, has been working on an Ebola vaccine for nearly 2 decades, dating back to when she was an investigator at the University of Michigan with then-NIH grantee and now former VRC director Dr. Gary Nabel.

Obama, accompanied by HHS Secretary Sylvia Burwell, NIH director Dr. Francis Collins and NIAID director Dr. Anthony Fauci, made Sullivan’s lab his first stop.

“The President was actually very well-

informed about how vaccines work,” she said. “He was very engaged and interested. In fact, he asked some insightful questions, some that not even other scientists have asked us.”

The concept for Sullivan’s vaccine is 16 years in the making, beginning back when few people outside the global infectious disease community had even heard of the deadly virus. Over the years, Sullivan and her team continued to tweak her idea, constantly improving on it. Eventually she followed Nabel to NIH in 1999, before the VRC was even built. Many in the vaccine research community had begun to believe Ebola was insurmountable. It was just too aggressive for a vaccine to ever protect against it. Did Sullivan ever lose heart that her work may never prove successful?

“No, I never did,” she said. “The vaccine was always on a logical march forward. And we always had the support of NIAID.”

When Sullivan’s vaccine went to the phase I clinical trial stage last fall, it was indeed a proud and historic occasion for several rea-

sons: The first Ebola vaccine to be tested in humans was developed by a woman; principal investigator Dr. Julie Ledgerwood of the VRC clinical trials section led the study; Mary Enama, VRC protocol operations manager, coordinated development of the trial; Laura Novik was the study coordinator; and a woman was the first volunteer to receive the vaccine.

“That wasn’t planned,” Sullivan said, “but it’s kind of remarkable.”

NIAID immunotechnology chief Dr. Mario Roederer collaborates with Sullivan to analyze immune responses in potential vaccine candidates. At first, he didn’t know who was going to be on the upcoming VIP tour. He was summoned from an out-of-town meeting to give a preview of his lab to an advance team. When he learned the advance team was actually the Secret Service, he realized he’d soon be giving the President of the United States a demo of the world’s most sophisticated flow cytometry operation. Timing was tricky, though. Roederer had to take a

In addition to praising the work of NIH, Obama used the occasion to ask Congress for more Ebola-effort funds and more funds for scientific research in general, so the U.S. can be prepared for the next global health challenge.

Recalling the world's sense of urgency last summer as Ebola spread, he acknowledged that NIH'ers are and have been involved in all aspects of containing the epidemic, from volunteering and deploying to West Africa to help care for Ebola patients and health care workers infected in the line of duty, to serving in medical labs testing for Ebola, not to mention successfully treating Texas nurse Nina Pham, one of the first people who contracted the disease in the U.S.

"You reminded the world that it is possible to treat Ebola patients effectively and safely without endangering yourselves or others," Obama noted. "One of the great virtues of what you've done here at NIH is reminded people that science matters and that science works. It's not always going to be immediate...there are going to be some trials and there are going to be some errors and false starts and blind alleys, but the basic concept of science—and making judgments on the basis of evidence—that's what's most needed during difficult, challenging moments like the ones that we had this summer and that we continue to have in West Africa."

The President warned that although the country

has so far managed to avoid the most alarming infectious disease scenarios—with SARS, H1N1 and now Ebola—there will probably come a time when the nation is confronted with a deadly airborne disease.

"To deal with that effectively, we have to put in place an infrastructure—not just here at home, but globally—that allows us to see it quickly, isolate it quickly, respond to it quickly," he said. "And it also requires us to continue the same path of basic research that is being done here at NIH."

At the mention of "basic research," the Masur crowd erupted in its most enthusiastic applause.

Besides the emergency funding request for the Ebola effort, Obama also urged constant, renewed dollars put into research for problems as yet unseen and unknown.

"That's part of how science works—you make investments and you pursue knowledge for knowledge's sake, in part because it turns out that knowledge may turn out useful later and you don't always know when," he said. "As you move ahead on all these fronts, I want you to know you have your President's full support and the administration's full support."

Ending his talk, Obama related something another Ebola survivor—Christian missionary Nancy Writebol—told him about the two different types of reactions she encounters among people, in her recovery.

"Some people wrap their arms around you," she told the President. "Some people stand 10 feet away."

"This disease is not just a test of our health systems," Obama said. "It is a test of our character as a nation. It asks us who we are as Americans. When we see a problem in the world—like thousands of people dying from a disease that we know how to fight—do we stand 10 feet away, or 10,000 miles away, or do we lead and deploy and go to help? I know what kind of character I want to see in America. I know the kind of character that's displayed by people here at NIH and some of your col-

leagues deployed right now in Liberia. That's who we are. We don't give in to fears. We are guided by our hopes and we are guided by our reason, and we are guided by our faith and we're guided by our confidence that we can ease suffering and make a difference. And we imagine new treatments and cures, and we discover, and we invent, and we innovate and we test and we unlock new possibilities.

"And when we save a life and we help a person heal," he concluded, "we go up to them and we open our arms, and we wrap our arms around them with understanding and love and compassion and reason. That's what you do here at NIH. It's what we do as Americans. That's who we are. That's who we'll always be." ●

red-eye flight from another meeting in Seattle to be back in Bethesda in time to show Obama around.

"I just supply the toys and technology," Roederer said. "Nancy does everything else."

In fact, in his speech in Masur later, the President referred humorously to what he saw on tour, joking that he's "been tinkering around the White House, setting up a similar system...We use it for brewing beer."

"I have to say both Nancy and Mario were really good teachers and were very patient with my rudimentary questions," quipped Obama. "And the lasers were really cool."

"Our flow cytometers are equipped with multiple lasers to illuminate the cells, which we've tagged with fluorescent labels," Roederer explained. Pre-



President Obama takes keen interest in Sullivan's research.

sending his research to VIPs was not new for him. He came to NIH from Stanford in 2000 and has given similar flow cytometry primers over the years to President George Bush, Vice President Dick Cheney as well as several other high-level visitors to NIH.

"I'd been hoping President Obama would come to our lab for a while now," said Roederer. His one-on-one with the President played out differently than his colleague's: Alone on the 5th floor that Secret Service had completely cleared of his coworkers, Roederer met Obama without press corps cameras.

Echoing Sullivan's impression of the "scientist-in-chief," Roederer said, "He was incredibly engaging. He interrupted me several times to ask questions, really good questions. You could tell he was sincerely interested in what we're doing here."

Both NIH labs made the White House's weekly highlight reel, West Wing Week, which aptly named the clip "Multiparameter Flow Cytometer Show." Watch it at <https://www.youtube.com/watch?v=pL2l295Awkx>.

RESPECT

CONTINUED FROM PAGE 1

Above, r:

NIH principal deputy director Dr. Lawrence Tabak opened the day-long conversation about intimate partner violence and bullying.

Below:

"A child who witnesses violence is affected just as much as if he or she experienced that physical act," said Dr. Valerie Maholmes.

PHOTOS: BILL BRANSON



NIH-funded discoveries on intimate partner violence and how bullying affects the workplace.

Dr. Ted George, a staff scientist at the National Institute on Alcohol Abuse and Alcoholism, asserted that people who lose control of their emotions are biologically different than others who have better control of their emotions.

Many of these people feel as though they're not in control. In response, they try to control other areas of their lives. This may include trying to control others through intimidation as well as physical and emotional abuse, he noted.

George believes that these people tend to perceive more threats in the world than do others. When these controlling people are threatened, they can become impulsive. Their responses to certain situations tend to be out of proportion.

"It's like they're dropping an atomic bomb on an ant hill," said George, referring to their extreme emotions.

He attributes this type of behavior to a group of neurons in the brain region called the "periaqueductal gray." Among other functions, this area is associated with fear and anxiety and is the key brain region mediating the fight or flight response. George likened it to a switch that turns emotions such as anger, fear and depression on and off.

In certain situations, these strong responses can be a good thing. Reacting quickly to legitimate threats can mean the difference between life and death. However, these responses become detrimental when an individual reacts to a minor event as if it were a threat or if an individual responds to nearly all events as if they were threats.

This highly reactive behavior affects families, as well. When children see violence, they may become more reactive and vigilant themselves, he said.

Next, Dr. Valerie Maholmes highlighted NIH-funded research on intimate domestic violence's effect on victims and children.

"Intimate partner violence is a pattern of assaultive or coercive behavior including physical and sexual assaultive behavior as well as economic coercion," said Maholmes, chief, Pediatric Trauma and Critical Illness Branch, National Institute of Child Health and Human Development.

Domestic violence affects health in ways that go beyond physical injuries.



"A child who witnesses violence is affected just as much as if he or she experienced that physical act," she said.

Maholmes said that children exposed to domestic violence may lose the ability to feel empathy and also may feel socially isolated. In 30-60 percent of domestic violence cases, children may also experience maltreatment.

"What we're finding more and more in the research we support is that being a victim of physical and psychological abuse is a strong and consistent predictor of perpetration," she said.

Maholmes said NICHD supports a variety of research to inform policies seeking to prevent domestic violence.

Jessica Hawkins, NIH Civil coordinator, and Danny Dickerson, accessibility consultant in the Office of Equity, Diversity and Inclusion, defined workplace bullying and described resources available to NIH employees.

"Workplace bullying can take the form of open verbal abuse, hidden verbal abuse or deliberate acts or inactions with the intent to demean and/or isolate a target," Hawkins said. "It tends to be repetitive, long-lasting and escalates in severity."

At NIH, there are a number of resources available, including the NIH Civil program, a resource that coordinates a response to intimidation, threats and workplace violence. She said the name Civil isn't an acronym. It was chosen to represent the goal of civility in the workplace.

The Civil Program consists of response coordinators, a response team and an advisory committee. Depending on the situation, the response team will consult other internal organizations to assist in devising a strategy for responding to complex workplace situations.

When there's bullying related to a protected class, the EDI office will handle the response. A protected class is a group of people with common characteristics who are protected from discrimination.



Jessica Hawkins, NIH Civil coordinator, described the disruptive effects of workplace bullying.

“When bullying goes from making work life harder to discriminating against a protected class, it becomes harassment,” Dickerson said. In these cases, EDI takes over.

Hawkins said that preventing workplace bullying really comes down to treating people with dignity and respect. Dickerson added, “Treat others the way you want to be treated.”

Finally, Lisa Nitsch, director of clinical services and education at House of Ruth Maryland, detailed signs of intimate partner violence in the workplace.

“Intimate partner violence is pervasive and frequently impacts the workplace,” she said. “This is happening whether you talk about it or not.”

Many victims of intimate partner violence look like bad employees, she said. They regularly take time off, are unfocused and lack confidence.

“One-quarter to one-half of domestic violence victims report that they have lost a job as a result of intimate partner violence,” she said.

One of the biggest reasons domestic violence victims stay with their partners is economic dependence, Nitsch noted.

It’s important for employers to develop reasonable plans to protect employees. This may include changing phone numbers, moving offices or providing escorts.

Nitsch advised employers that addressing domestic violence is a multi-pronged effort that includes developing policies and procedures and delivering training to raise awareness.

“Hopefully, we’ll be able to work ourselves out of a job,” she said. 🙏

NIMHD Competitive Course Seeks to Define the Science of Health Disparities

By Cherie Duvall Jones

NIMHD’s translational health disparities course arms scholars with data on health disparities, its determinants and the multifactorial nature of the field. The class of 2014 recently wrapped up its 2-week session.



“NIMHD developed this course to help further the scholar’s understanding of health disparities that exists nationally and globally,” said Dr. Irene Dankwa-Mullan, course director and acting deputy director, NIMHD Division of Extramural Scientific Programs. “The course provides critical science and policy perspectives to help participants to systematically address this prominent issue in their institutions and communities. The dynamic lectures, interactive case studies as well as interaction with NIH IC staff, promotes a unique scholarly experience that fosters commitment and collaboration.”

A highly selective group of experts and thought leaders informed scholars on current research, practice and policy efforts including solutions to advance the science. Ninety-four out of 340 applicants were chosen to participate.

“I see NIH as a change agent in defining and advancing the field of health disparities research,” said NIMHD acting director Dr. Yvonne Maddox. “As such, NIH must be a leader in building resources and capacity supporting academic development like fostering graduate programs in the science of health disparities, building curricula based on theories and supporting the development of the scientific workforce studying health disparities.”

The course began with Dr. Paula Braveman of the University of California, San Francisco, presenting the human rights perspective on health equity.

“Human rights principles give guidance on what’s fair,” said Braveman. “The right to achieve the highest possible standard of health is fair. The notion is that the government should progressively remove obstacles to fulfillment of rights of all, especially for those with more obstacles...It’s not charity; it’s about rights.”

Consisting of 12 modules, the course covered a number of theoretical frameworks for discussing health disparities research from policy, social and behavioral science and biological and genetic perspectives. It also focused on social determinants of health within several health disparity populations: African American; Asian American; American Indian and Alaska Native; Hispanic; rural, poor and medically underserved; Native Hawaiian and Pacific Islander; early life, child health and the life course; and LGBTI and other sexual minorities.

“I really thought that the course could enhance what I’ve been learning over the past couple of years and also what I’ve been putting into practice with different cultural groups,” said scholar Dr. Jenelle Walker, NINR postdoctoral fellow at the College of Nursing and Health Innovation in Phoenix. “As I’ve been in the course, I’ve really gotten a stronger understanding—like a better foundation, better routing—of what health disparities research is. I really see how I can apply it and I’m really looking forward to applying it.”

The course is accredited by the Accreditation Council for Continuing Medical Education through joint sponsorship by NIMHD and Johns Hopkins University School of Medicine. For more information visit www.nimhd.nih.gov.

digest

Teen Prescription Opioid Abuse, Cigarette, Alcohol Use Trends Down

Use of cigarettes, alcohol and abuse of prescription pain relievers among teens has declined since 2013 while marijuana use rates were stable, according to the 2014 Monitoring the Future (MTF) survey that NIDA released Dec. 16. However, use of e-cigarettes, measured in the report for the first time, is high.

These 2014 results are part of an overall two-decade trend among the nation's youth. The NIDA-funded MTF survey measures drug use

and attitudes among 8th, 10th and 12th graders and is conducted by researchers at the University of Michigan.

"With the rates of many drugs decreasing, and the rates of marijuana use appearing to level off, it is possible that prevention efforts are having an effect," said NIDA director Dr. Nora Volkow. "It is now more important than ever for the public health community to continue to educate teens, parents, teachers, community leaders, the media and health care providers about the specific harms of drug use among teens, whose brains are still developing."

Low-Glycemic Diets May Not Improve Cardiovascular Outcomes When Compared To High-Glycemic Diets

A study funded by NHLBI comparing low- and high-glycemic index diets found no significant difference between the two plans in reducing cardiovascular risk or reversing insulin resistance.

A number of widely followed diets have been based on the idea that focusing on foods with a low-glycemic index might improve cardiovascular risk factors and lower the risk of developing diabetes. But a study suggests that using the glycemic index to select foods may not improve insulin sensitivity, lower HDL or LDL lipid levels or reduce blood pressure levels. Results of the study appeared online Dec. 18 in the *Journal of the American Medical Association*.

The study included 163 overweight adults in a controlled feeding study. Participants had systolic blood pressure levels of between 120

and 159 mmHg, which means participants at the higher end of this range were considered to have high blood pressure.

The diets compared were: high-glycemic index/high carbohydrate; low-glycemic index/high carbohydrate; high-glycemic index/low carbohydrate; and low-glycemic index/low carbohydrate. The low-glycemic index/low-carbohydrate diet resulted in similar insulin sensitivity, systolic blood pressure and HDL and LDL cholesterol levels when compared to the high-glycemic index/high-carbohydrate diet.

Chromosome Region Linked to Gigantism

Researchers at NICHD have found a duplication of a short stretch of the X chromosome in some people with a rare disorder that causes excessive childhood growth. The scientists believe that a single gene within the region likely has a large influence on how much children grow.

"Finding the gene responsible for childhood overgrowth would be very helpful, but the much wider question is what regulates growth," said Dr. Constantine Stratakis, lead author of the new paper and scientific director at NICHD.

In theory, the causes of overgrowth and undergrowth in children should be regulated by the same mechanisms, Stratakis explained. "As pediatricians and endocrinologists, we look at growth as one of the hallmarks of childhood. Understanding how children grow is extraordinarily important, as an indicator of their general health and their future well-being."

The research started with a family who came to the Clinical Center for treatment in the mid-1990s. A mother who had been treated for gigantism had two sons who were also growing rapidly. People with this condition are abnormally tall and may have delayed puberty, large hands and feet and double vision. A second family, with an affected daughter, came to NIH from Australia. The girl had the same duplication the researchers saw in the first family.

Gigantism results from a defect in the pituitary, a pea-sized gland at the base of the brain that makes growth hormones and controls the activity of other glands in the body. Some people with gigantism have a tumor in the pituitary that secretes extra hormone; others just have an oversized pituitary. Gigantism is often treated by removing the tumor, or even the entire pituitary, but can sometimes be treated with medication alone.

The study appeared in the *New England Journal of Medicine*. Support also came from NINDS and NHGRI.



Dr. Wilson Compton
National Institute on Drug Abuse

NIDA deputy director Dr. Wilson Compton (above) hosted a press teleconference and Twitter chat on Dec. 16 to discuss findings of the 2014 Monitoring the Future survey. This year's survey continued to show encouraging news. However, the survey suggested a declining perception among teens that marijuana use is harmful. Interestingly, more than 50 percent of high school seniors still say they disapprove of occasional marijuana use. For more on the 2014 MTF survey, visit www.drugabuse.gov/related-topics/trends-statistics/monitoring-future.

volunteers

NINR Study Needs Cancer Survivors

NINR seeks people who completed radiation therapy for cancer to participate in a study. Some people have persistent clinically significant fatigue after receiving radiation therapy. Researchers want to test whether the medication ketamine can reduce this fatigue. Study procedures take place at the Clinical Center. Study-related tests and medication are provided at no cost. Compensation will be provided. For more information, call the Office of Patient Recruitment, 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 15-NR-0037.

Study Seeks Healthy Older Adults

Healthy older adults ages 55-75 are invited to participate in an outpatient research study investigating the benefits of omega-3 oil and blackcurrant supplements on vascular health. The goal of the study is to determine whether the supplements improve blood flow and blood vessel function that can affect your heart. Eligible participants must be medication-free and in good general health. The study will be carried out in an outpatient clinic and includes 4 visits over 6 months. Compensation is provided. For more information, call 1-800-411-1222 (TTY 1-866-411-1010) and refer to study 14-NR-0034.

Overweight Volunteers Needed

NHLBI is looking for men and women ages 30-65 who are overweight or obese and have elevated glucose levels. This study will determine how treatment with PDE4 inhibitor roflumilast (6 weeks) affects how a body handles glucose. Roflumilast has been shown to lower glucose in diabetic individuals. After an initial screening visit for general health assessment, participants will undergo a testing before and after treatment with the study medication that 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. Monetary compensation will be provided. For more information, call 1-866-444-3356. Refer to study 13-H-0123.

Scoliosis Patients Needed for Imaging Study

Researchers at the Clinical Center are testing a new 3-D imaging system in children and adults with scoliosis. If you or your child (over age 2) has scoliosis or similar conditions you may be interested in participating. All study-related tests and procedures are provided at no cost. Compensation is provided. For more information, call the Office of Patient Recruitment, 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 11-CC-0120.

Healthy Women Sought, Need Uterine Tissue

NICHD is studying how stem cells work within the uterus. Researchers are collecting uterine tissue in women over 18 who are healthy, have had a stem cell transplant or have a condition affecting reproduction. Requires one 1-hour visit to the Clinical Center. Study-related tests and procedures are provided at no cost. Compensation is provided. For more information, call 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 12-CH-0016.



Santa Cycles 'Inn'

Santa traded his sleigh for a Montgomery County police department motorcycle Dec. 17, when he visited the Children's Inn at NIH with toys and donations for families staying at the inn during the holiday season. He was accompanied by two dozen county officers astride Harleys.

PHOTOS: ALEXANDRA BERG



Inn Guests Enjoy 'Nutcracker' Performance

More than 100 children and parents from the Children's Inn at NIH enjoyed a performance of The Nutcracker on Dec. 9 at the American Dance Institute in Rockville. The evening performance was sponsored by the NIH R&W Association and the inn. Clinical Center patient Luisa Scotto (c) was among the youngsters who were surrounded by ballet dancers at the event. Guests, including members of the NIH international wives group, were also treated to dinner prepared by Mamma Lucia's. The dinner was sponsored by the XA Project, which brings the arts to patients.

Gingerbread Village Transforms CRC Atrium

PHOTOS: ERIC BOCK

NIH'sers transformed the Clinical Research Center atrium into a colorful landscape of gingerbread houses in December with 47 entries for the 11th annual Gingerbread House Decorating Contest. Thousands of staff, patients and visitors voted on Facebook and in person.

Team Pacak, the staff from Dr. Karel Pacak's section on medical neuroendocrinology at NICHD, won the Facebook vote and the 3 NE hematology, oncology transplant nursing unit won the in-person vote. More than 4,100 people voted online and 2,400 people voted in person.

The first competition, held in 2004, was open only to the CC nursing department. Eligibility was later extended to all NIH units and departments.



Above, from l:

Onlookers admire the gingerbread houses on display in the Clinical Research Center's north atrium.

Some 6,000 people voted for their favorite gingerbread houses, including one created by NHGRI's Social and Behavioral Research Branch. The Foundation for NIH donated the kits used to build the gingerbread houses.

Below:

The NLM Library Operations' gingerbread house was one of 47 contest entries.



Left: Winning the popular vote in the CC contest was Frozen.

Above: Edible Real Estate Market Expands Beyond CC. Sandy Koeneman (l) and Ann Brewer of the Executive Secretariat in Bldg. 1 admire their gingerbread house replica of Bldg. 1. Koeneman and Brewer worked with Leslie Twyman and Lynne Williams to build the model. This year, Exec Sec held its own gingerbread competition among its staff. The Bldg. 1 replica won the contest.