

## A VISION FOR CHILD HEALTH Remembering the Legacy of Eunice Kennedy Shriver

BY DANA TALESNIK

Biographies abound of the Kennedy family, yet one didn't exist about one of its seminal members, Eunice Kennedy Shriver, until now.

In *Eunice: The Kennedy Who Changed the World*, biographer Eileen McNamara depicts Shriver—the daughter of Joseph and Rose Kennedy—as a savvy, complicated, tenacious woman who had devoted her life to several causes. Often remembered as an advocate for people with disabilities, Shriver has another great, often unsung legacy: the lifesaving prenatal and child health research of her namesake institution—the

Eunice Kennedy Shriver National Institute of Child Health and Human Development.

“The Special Olympics is what we remember her for,” said McNamara, chair of the journalism department at Brandeis University and a Pulitzer Prize-winning columnist, at a recent fireside chat with NICHD director Dr. Diana Bianchi in Lipsett Amphitheater. “[Another] reason Eunice Kennedy Shriver changed the world is



NICHD director Dr. Diana Bianchi (l) hosts a recent fireside chat with Eunice Kennedy Shriver biographer Eileen McNamara.

because of the work that gets done here [at NICHD] now.”

SEE SHRIVER, PAGE 6



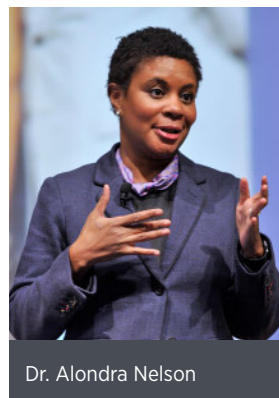
Wear Red Day says, “Hashtag our hearts,” p. 12.

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## ‘Social Life’ of DNA Has Unique Power

BY ERIC BOCK



Dr. Alondra Nelson

The rise of genetic testing over the past 20 years, especially with respect to genealogy, has revealed DNA's social power in addition to its biological power, said Dr. Alondra Nelson at a Jan. 17 Wednesday

Afternoon Lecture in Masur Auditorium.

“Genetic analysis, including genetic ancestry testing, is popping up in new social domains almost every day,” said Nelson, president of the Social Science Research Council and professor of

SEE NELSON, PAGE 8

## Fried Illuminates the Future of Dentistry

BY DANA TALESNIK



Dr. Daniel Fried

For anyone who dreads going to the dentist, there may be light at the end of the tunnel. Advances in laser and light-based imaging technologies may soon change the face of modern dentistry.

Tooth enamel is almost transparent at longer wavelengths, making

it possible to shine near-infrared light on a tooth to detect dental decay.

“You can see right into the tooth,” said Dr. Daniel Fried, professor, University

SEE FRIED, PAGE 4

## Black History Month Exhibition Celebrates NIH Scientists

BY KATHRYN MCKAY

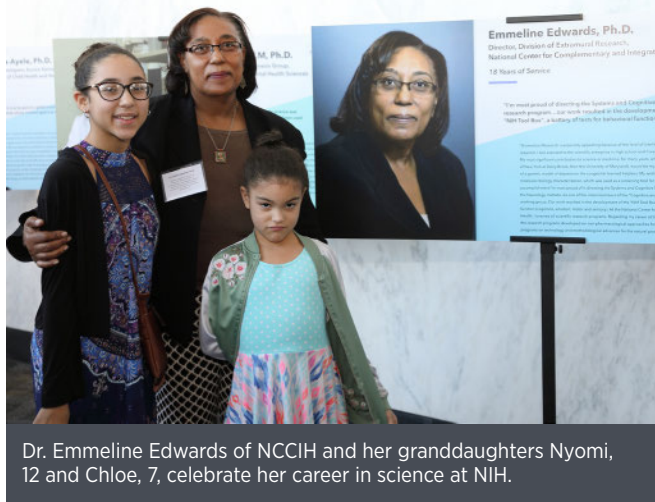
In previous years, NIH Black History Month was celebrated by honoring civil rights heroes who are household names, such as Dr. Martin Luther King Jr. and Coretta Scott King or well-known physicians such as Dr. David Satcher.

This year, the Office of Equity, Diversity and Inclusion (EDI) looked down the hall and across NIH. The result is an exhibition of photos and profiles honoring 14 African-American scientists at NIH, plus four scientists from the past.

On Feb. 4, hundreds of people gathered at the National Library of Medicine to kick off “Celebrating the Contributions of African-American Scientists Past and Present.” The exhibition is sponsored by EDI, NLM and the Network of African-American Fellows.

“It is rare to have this many African-American scientists gathered in one place,” said Dr. Christopher Williams, a former NIH postdoctoral fellow and emcee of the event.

“They did not set out to rewrite history but instead they focused on completing any tasks that were given to them to the best of their abilities. Now after years and decades of these consistent small victories



Dr. Emmeline Edwards of NCCIH and her granddaughters Nyomi, 12 and Chloe, 7, celebrate her career in science at NIH.

and repeated demonstrations of excellence, others have taken notice.”

As a cofounder of the Network of African-American Fellows and the STEM education

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*“It is rare to have this many  
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-DR. CHRISTOPHER WILLIAMS

• • •

specialist at the National Museum of African-American History, Williams spoke of the importance of sharing the success

stories of African Americans working in STEM.

Dr. Roland Owens, honoree and assistant director of NIH’s Office of Intramural Research, provided some historical perspective.

“As of October 1, 2018, only 10 of the NIH intramural research program’s 817 tenured senior investigators self-identified as being of black African descent,” he said. “We have made progress over the last 60 years, but clearly not enough.”

In his work with EDI’s black employment committee, Owens said that one consistent barrier is the lack of visibility of role models for black youth.

“Because many African Americans have first and last names that are European, we have often been invisible contributors to the biomedical research enterprise,” he said. “Even in these days of web sites and social media, it can be difficult to find images of black scientists unless you

know exactly where to look...It is our desire that black scientists, postdocs, students and everybody will look at these pictures and



Cutting the ribbon are (front, from l) Debra Chew (EDI), Victoria Gross (EDI), Dr. Emmeline Edwards (NCCIH), Dr. Marie Bernard (NIA), Dr. Fasil Tekola-Ayele (NICHD), Dr. Roland Owens (OD), Dr. Patricia Flatley Brennan (NLM) and Erika Barr (OD). In the back are (from l) Dr. Alfred Johnson (OD), Dr. Griffin Rodgers (NIDDK), Dr. Gary Gibbons (NHLBI), Dr. Anna Ramsey-Ewing (NCATS), Dr. Shawn Gaillard (NIAID), Dr. Wortia McCaskill-Stevens (NCI), Dr. Courtney Fitzhugh (NHLBI), Dr. Carl V. Hill (NIA) and Dr. Zayd M. Khaliq (NINDS). At right, Owens, assistant director of NIH’s Office of Intramural Research, discusses history, visibility and diversity in science.





Above, Gaillard and Rodgers are two contemporary NIH scientists featured with portraits. At right are some portraits from the agency's past.



posters and say, 'Hey, if they can do it, so can I.'

Before recognizing each honoree, NLM director Dr. Patricia Flatley Brennan spoke of the importance of the exhibition and how the honorees represent 10 institutes and OD.

"What an amazing, knowledgeable and impressive group," she said.

After applause for each scientist, the guests gathered for a ribbon-cutting ceremony and unveiling of the portraits.

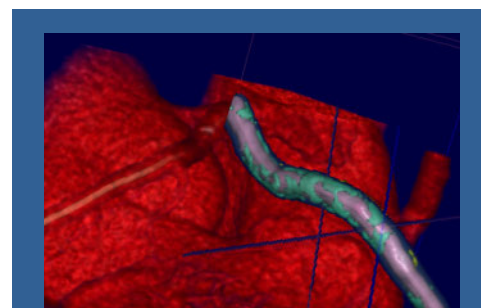
This was the part of the program that Chloe Edwards, 7, was looking forward to the most. As she waited by the portrait of her grandmother Dr. Emmeline Edwards, director of the Division of Extramural Research, NCCIH, Chloe held a book called

*Bold Women in Black History* so her grandmother could sign it.

For Victoria Gross, a principal strategist for EDI and organizer of the event and the exhibition, "This was a 5-year dream come true. Having this much talent in one room was breathtaking."

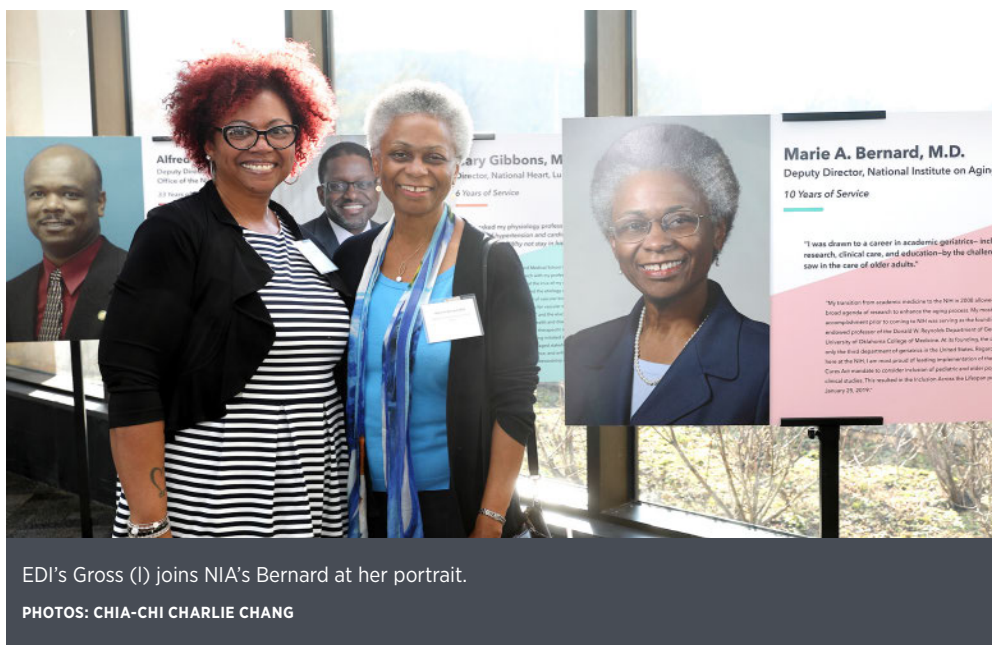
The exhibition will remain on display outside Lister Hill Auditorium in Bldg. 38A throughout February.

In addition, visitors are encouraged to view two banner exhibitions that focus specifically on African-American health providers near the entrance to the main NLM building: "Opening Doors: Contemporary African-American Academic Surgeons" and "Binding Wounds, Pushing Boundaries: African Americans in Civil War Medicine."



ON THE COVER: 3-D reconstructed model heart of a 63-year-old woman with psoriasis, a chronic inflammatory skin condition that researchers have linked to heart disease. The vessel at right represents the left circumflex artery, which contains widespread levels of coronary plaque (green). February is American Heart Month.

IMAGE: NEHAL MEHTA, NHLBI



EDI's Gross (l) joins NIA's Bernard at her portrait.

PHOTOS: CHIA-CHI CHARLIE CHANG

### The NIH Record

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Fried takes questions from the audience.

PHOTOS: CHIA-CHI CHARLIE CHANG

## Fried

CONTINUED FROM PAGE 1

of California, San Francisco School of Dentistry. “The enamel looks almost like an ice cube.”

Light-based imaging is minimally invasive, providing a safer alternative to an X-ray’s ionizing radiation, explained Fried at a recent NIDCR Grand Rounds in Lipsett Amphitheater. His team is also researching laser technology that can remove dental decay and composite fillings, bonding and adhesives, which could mean less painful visits to the dentist.

There’s long been a need for more reliable methods to diagnose tooth decay, said Fried. Most cavities form on the occlusal surfaces of teeth. Dentists visually inspect teeth for decay, which can lead to false-positives and overtreatment. Even X-rays are not sensitive enough to detect early occlusal cavities.

“Many lesions in the mouth have been re-mineralized and...no longer need intervention,” said Fried. “Dentists have trouble telling the difference between active and arrested lesions; this new technology has the potential of differentiating them.”

### Light-Based Imaging More Precise

Fried’s research focuses on two kinds of light-based imaging that provide a more precise picture than X-rays and therefore could help diagnose and treat tooth decay

much earlier. Near-infrared imaging is sensitive enough to detect early demineralization and can screen many teeth at once. Optical coherence tomography (OCT), similar to an ultrasound, shows cross-sections and can image deep into the tooth.

“OCT [already] has changed the practice of ophthalmology,” said Fried. “It’s been very successful for retinal imaging... and it’s also very promising for dentistry.”

Capable of imaging through composites and sealants, OCT is particularly useful for assessing lesion severity and activity. “If the dentist doesn’t know if [a lesion] is active or arrested,” said Fried, “with OCT, you can actually see the lesion structure, how deep it is and if it

has a definitive surface zone suggesting that remineralization has occurred.”

Tomography is especially suited for clinical trials as it can track changes over

★ ★ ★  
*“OCT [already] has changed the practice of ophthalmology. It’s been very successful for retinal imaging...and it’s also very promising for dentistry.”*

-DR. DANIEL FRIED

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time. In OCT clinical trials, Fried’s lab has detected significant demineralization that wasn’t spotted visibly. He recalled that their first studies in 2010 were encumbered by slow technology. Now, they’ve acquired a new system that uses a scanning device on a chip capable of taking entire 3-D images in a second.

“One of the most exciting things we can do with OCT is monitor the changes in lesions as we re-mineralize them,” said Fried. “With nonsurgical intervention, you can treat [the tooth] with fluoride and re-mineralize lesions...That’s important for assessing lesion

activity” and whether intervention is necessary.

In a demineralized tooth, the decay reflects a lot of light and appears white against the healthy enamel, which looks dark in the near-infrared.

“We get the highest contrast at these longer wavelengths, significantly higher than other imaging technologies,” said Fried. And there’s another benefit to near-infrared imaging. “Stains, which are responsible for a lot of false-positives, don’t absorb at these longer wavelengths, so you can image just the demineralization without the stain.”

A recent clinical study found a dramatic difference between near-infrared imaging and X-rays, reported Fried. In 26 lesions seen at the near-infrared that penetrated the dentin, only 1 of them showed up on X-ray.

### Lasers Can Remove Cavities

You may know the drill. Now meet the new lasers that can selectively remove cavities. Compact and precise, these infrared lasers scan the tooth’s surface and emit tiny, fast pulses to remove decay selectively without overly impacting healthy tooth structure.

The three technologies complement each other. First, a near-infrared image is



Fried chats before his lecture with NIDCR clinical director Dr. Janice Lee.



Fried's research focuses on two kinds of light-based imaging that provide a more precise picture than X-rays and therefore could help diagnose and treat tooth decay much earlier.

taken and Fried's team has an algorithm to convert it to pixels. Then the high-speed laser scans the surface and removes decay, followed by an OCT scan that checks how much was removed.

"You can also use the near-infrared to enhance visibility of composites," said Fried. "Dentists spend more time removing existing composites and restorations than putting in new ones. If the composite is color-matched to the tooth, it's hard to see where it is," and that makes it tough to remove without damaging nearby healthy enamel.

Spectral-guided ablation can be used to selectively remove composite from tooth surfaces. When a laser strikes material, some of it vaporizes and the plume looks different when it strikes enamel vs. composite, explained Fried. Using spectral-guided ablation, it's possible to see the calcium lines of enamel to make sure the laser is only striking composite. In a current clinical study, Fried's lab is removing small composite restorations in less than a minute.

The combination of these laser and light-based technologies could lead to earlier and better detection and intervention of dental decay. So smile! The future of dentistry is looking bright. **R**

### Kleinberg To Give NLM Data Science Lecture, Mar. 6

The next talk in the NLM Informatics and Data Science Lecture Series—From Data to Decisions: Large-Scale Causal Inference in Biomedicine—will be given by Dr. Samantha Kleinberg on Wednesday, Mar. 6 from 4 to 5 p.m. in Lister Hill Auditorium, Bldg. 38A.

The collection of massive datasets has led to unprecedented opportunities for causal inference, such as using electronic health records to identify risk factors for disease. However, our ability to understand these complex data sets has not grown at the same pace as our ability to collect them. Kleinberg will discuss recent findings in cognitive science and how they can help us make better use of causal information for decision-making.

She is an associate professor of computer science at Stevens Institute of Technology and the author of *Causality, Probability and Time* (Cambridge University Press, 2012) and *Why: A Guide to Finding and Using Causes* (O'Reilly Media, 2015).

Interpreting services are available upon request. Individuals who need reasonable accommodation to participate should contact Ebony Hughes, (301) 451-8038, Ebony.Hughes@nih.gov or the Federal Relay (1-800-877-8339).



### FNHI Offers 'Trailblazer Prize' for Clinician-Scientists

The Foundation for the NIH has opened nominations for the 2nd Trailblazer Prize for Clinician-Scientists. This annual prize and \$10,000 honorarium presented by FNHI recognizes the outstanding contributions of early-career clinician-scientists in the United States whose work has the potential to or has led to innovations in patient care.

FNHI will honor the three finalists of the Trailblazer Prize and announce the winner at the FNHI annual fall board dinner in Washington, D.C., on Oct. 23.

FNHI recognizes the unique and critical role that clinician-scientists play in the evolution of medical practice. As noted in the 2014 *NIH*



Dr. Samantha Kleinberg

*Physician-Scientist Workforce Report*, these individuals play a vital role in ensuring that biomedical advances ultimately benefit patients and improve public health.

For eligibility and nomination details, visit [fnhi.org/TrailblazerPrize](http://fnhi.org/TrailblazerPrize). The nomination deadline is Friday, Mar. 29 at 1 p.m. ET.

### NIMHD Seminar Features Peek, Mar. 7

Dr. Monica Peek will give the NIMHD Director's Seminar Series lecture on Thursday, Mar. 7 from 3 to 4:30 p.m. in Lipsett Amphitheater, Bldg. 10. The title of her talk is "Structural Inequities and Health Disparities: Lessons for Medical Decision-Making."

Peek is an associate professor at the University of Chicago, where she specializes in general internal medicine and preventive health for adults. As a principal investigator, she conducts research to reduce health care disparities with emphasis on diabetes and breast cancer-screening education for African Americans.

Peek has been an invited speaker at many local and national medical meetings, serves on the boards of several advocacy organizations and is involved in community-based education activities. She is the recipient of numerous awards and has authored more than 65 peer-reviewed research papers.

Sign language interpreters will be provided. Individuals who need reasonable accommodation should call Edgar Dews at (301) 402-1366 or the Federal Relay (1-800-877-8339).

Individuals who need reasonable accommodation should call Edgar Dews at (301) 402-1366 or the Federal Relay (1-800-877-8339).

### Sailing Association Open House, Mar. 6

The NIH Sailing Association invites everyone to its open house on Wednesday, Mar. 6 from 5 to 7:30 p.m. at FAES House at the corner of Old Georgetown Rd. and Cedar Ln. Explore your interest in learning to sail and discover opportunities for sailing with NIHSA. There will be information about 6-week basic training classes, the club's racing program and social activities offered by NIHSA. A fee of \$5 at the door includes pizza, drinks and snacks. Cash bar for beer and wine—\$2 each. Look for NIHSA posters and flyers around campus. For more information, visit [www.nihsail.org/](http://www.nihsail.org/).



Dr. Monica Peek

## Shriver

CONTINUED FROM PAGE 1

### A Champion for Child Health

Shriver had the foresight to realize that children might have distinct medical needs, said McNamara. So one sunny day in 1961, Shriver took her brother, President John F. Kennedy, sailing on Nantucket Sound and suggested that perhaps Jacqueline Kennedy's recent miscarriage and a still-born birth in 1956 had medical causes. She convinced the President to recommend a federal institute for prenatal, neonatal and child health research.

"She didn't dream it up," said McNamara, "but she latched on to good ideas and used her influence to push them forward."

In 1963, a year after NICHD's founding, President and Mrs. Kennedy lost another baby. Patrick was barely 2 days old when he died of a respiratory syndrome that took the lives of more than 20,000 premature babies annually back then. Today, thanks to treatments developed by NICHD, few infants die from this syndrome.

In 2008, NICHD was dedicated to Shriver, who attended the ceremony with much of her family. Shriver passed away a year later.

### Biography: A Daunting Task

When McNamara's editor suggested she write a biography of Shriver, McNamara initially was reluctant. She hadn't known



McNamara and Bianchi share a light moment during their conversation. "Nobody ever met her expectations," said McNamara of Shriver, "so keep working on it; she's watching."

RECENT PHOTOS: MARLEEN VAN DEN NESTE

Shriver personally and heard she was a formidable character.

"If you're a reporter for 30 years at *The Boston Globe*, your natural instinct is to run away from the Kennedy family, not to run toward [them]," said McNamara. "Not for any lack of respect but...they're not particularly trustful of journalists; they've not always been well treated by my ilk. And they're also litigious."

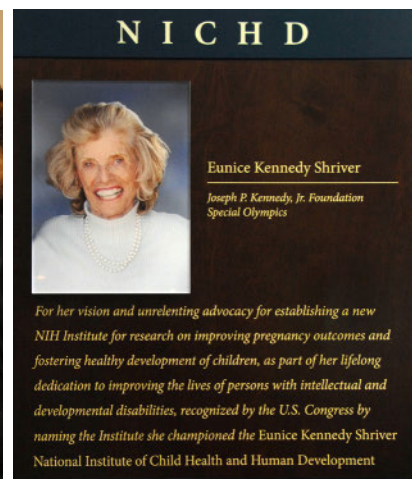
McNamara would need access to all personal papers as well as cooperation from

the five Shriver children who, for the sake of impartiality, wouldn't get to read the manuscript in advance.

The whole process took 7 years, she said, "most of it spent convincing them I wasn't going to do a hatchet job on their mother... that they should trust me," and arranging access to the papers, which were disorganized, in storage at the Kennedy Library.

### Eunice: A Complicated Woman

The story McNamara then uncovered



**Flashback.** At left, Shriver family attending the NICHD anniversary program in 2008 include (from l) honoree Eunice Kennedy Shriver; her son, Dr. Timothy Shriver; his wife, Linda Potter Shriver; Eunice's husband, Sargent Shriver; and the honoree's sister, Jean Kennedy Smith. The event was held in March in Natcher auditorium. In the center photo, chatting with Shriver (r) at the event are (from l) her brother Sen. Edward Kennedy (D-MA), Dr. Nadia Zerhouni and her husband, NIH director Dr. Elias Zerhouni. At right, a plaque on the NICHD corridor in Bldg. 31 marks the renaming of the institute in honor of Shriver.

2008 PHOTOS: BILL BRANSON, ERNIE BRANSON

was that of an educated, driven, complex woman. Shriver's ambition was overlooked by her parents, who thought her role should be promoting her brothers' political careers. But she carved a place for herself by taking the helm of the Joseph P. Kennedy, Jr. Foundation in the 1950s, refocusing its resources toward researching mental and intellectual disability.

"Who among [the Kennedy family] can say they took a population that was reviled and hidden in the shadows and liberated them from stigma and shame?" asked McNamara. "What makes the Special

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***"What makes the Special Olympics such a remarkable contribution is that, for the first time, we were celebrating these children, not hiding them."***

-EILEEN MCNAMARA

• • •

Olympics [which Shriver founded] such a remarkable contribution is that, for the first time, we were celebrating these children, not hiding them."

Shriver had a close relationship with her older sister Rosemary, who inspired her advocacy for people with disabilities.

"Some of it was out of altruism; not a small part of it was out of guilt," said McNamara. Rosemary, who had intellectual disabilities and an undiagnosed mental health condition, was left incapacitated after a failed lobotomy as a young woman and was later institutionalized.

Shriver's goodwill also extended to other groups who had nobody to speak for them. She once lived in a women's federal penitentiary to document injustices. She also recruited inmates from a juvenile detention center to serve as camp counselors at Camp Shriver for disabled children in her own backyard.

"Only Eunice would think that was a good idea," said McNamara, "because can you think of two more marginalized

communities than prison inmates and intellectually disabled children?"

McNamara's biography highlights Shriver's many dichotomies. She was physically fragile, yet competitive, determined to be the best mariner, the best athlete among her siblings.

She was a compassionate humanitarian, yet an intractable human. "She expected everyone to have the same sense of urgency that she had. It made her bristly," said McNamara. "She went through assistants the way the rest of us go through tissues when we have a really, really bad cold."

Shriver adored her children but wasn't affectionate. "She was just a hard-ass, constipated Irish woman," noted McNamara.

Meanwhile, Shriver's children all grew up to be compassionate people. Perhaps, suggested McNamara, the nurturing came from their father, Sargent.

"His love letters were the most beautiful I've ever read; they were in those boxes [in storage]," said McNamara. "The kids had never read them."


Luckily for Sargent, Eunice never fulfilled her aspiration of joining the convent. A



deeply religious woman, she admired working nuns for their commitment to social reform and tirelessly worked her entire life to promote social justice.

In the end, Shriver's advocacy for child health

stands among her greatest legacies.

"That's the piece of her biography that gripped me the most, that she had the prescience to see what we were not doing" and push for needed research, said McNamara. "She was so far ahead of her time." 

## HIV Vaccine Study Needs Subjects

Vaccine Research Center researchers seek persons 18-60 years old who are living with HIV for a research study. The study evaluates an investigational product targeting the HIV virus to determine if it is safe and can generate an immune response. Compensation is provided. For more information, call 1-866-444-1132 (TTY 1-866-411-1010) or email [vaccines@nih.gov](mailto:vaccines@nih.gov). Se habla español.

## NHLBI Study Recruits Volunteers

NHLBI invites volunteers ages 18-80 of African descent with or without sickle cell trait and patients with sickle cell disease to participate in a one-time visit research study. Volunteers will provide blood samples that will be used to look for a link between the PKLR gene and pyruvate kinase protein. The PKLR gene is active in the liver and in red blood cells and helps to create protein called pyruvate kinase that is essential in normal functioning of red blood cells. Compensation is provided. For more information about study 18-H-0146, call 1-866-444-2214 (TTY 1-866-411-1010) or visit <https://go.usa.gov/xP8Hx>.

## Healthy Volunteers Sought

Healthy volunteers at least 18 years old with no history of cardiovascular disease are needed to participate in a research study with NHLBI. Researchers are interested in understanding the effects of diets enriched with palmitoleic acid (omega-7) on decreasing cardiovascular risk and effects on metabolism. All study-related medications, tests or procedures are at no cost. Receive compensation for your participation at the end of the completed study. For more information, call the Office of Patient Recruitment, 1-800-411-1222 (TTY 1-866-411-1010) or visit <https://go.usa.gov/xQq2p>. Refer to study 18-H-0019.

## Post-Transplant Patients Needed

NHLBI researchers are testing whether a mouth rinse containing topical dexamethasone can be used to prevent oral chronic graft vs. host disease in post-transplant patients. If you are 12 years of age or older and have received a stem cell transplant in the last 60 to 90 days, you may be eligible to participate. Study-related tests and procedures are provided at no cost. For more information, call the Office of Patient Recruitment at 1-866-444-2214 (TTY 1-866-411-1010). Read more at <https://go.usa.gov/xnhak>. Refer to study 07-H-0005.

## Nelson

CONTINUED FROM PAGE 1

sociology at Columbia University.

In the early 2000s, companies started to offer direct-to-consumer genetic/genealogy testing. Nelson said that among the early adopters of genetic testing were educated African-American senior citizen women. At first, she wondered why this community was interested in pioneering these new technologies even though they had historical reasons to be wary of science.

She found that genetic testing gave them the opportunity to learn where their ancestors came from. Genetic data, Nelson said, “is the ultimate big data.” It can be used in medicine and forensic science in addition to genealogy.

The first research papers using genetic analysis answered long-standing questions about slavery and race in the United States, Nelson explained. One article, for example, used genetic analysis to claim that Thomas Jefferson fathered the children of Sally Hemings, one of his slaves.

Genetic analysis has also revealed clues to the history of buried slaves. In 1991, the General Services Administration began constructing an office building in lower Manhattan. Soon after work began, the remains of more than 300 men, women and children were discovered. Eventually, it was determined the site was a burial ground for slaves.

“What started as a construction site became an [anthropological] excavation,” she said.

A forensic anthropology team at a local college began to exhume the remains.

Activists calling themselves Descendants of the African Burial Ground were concerned that the approach the college was using to examine the remains “would reduce their ancestors’ social identity to skin color.”

As a result of their concerns, the remains were sent to a laboratory at Howard University. Nelson said the lab conducted a rigorous historical, archeological and biological examination of each body to provide a detailed account of each person buried there.



Nelson called genetic data “the ultimate big data.”

PHOTOS: MARLEEN VAN DEN NESTE

Most African Americans know little about their ancestors who were sold into slavery. A company called African Ancestry infers individuals’ African heritage using DNA testing. Those who use the service receive their



*“What started as a construction site became an [anthropological] excavation.”*

-DR. ALONDRA NELSON



results along with a “certificate of ancestry” detailing their African roots.

African Americans who receive inferences about where their ancestors may have come from may use that information to connect with the past, Nelson said.

Descendants of an ethnic group from Sierra Leone invited Nelson to a ceremony of remembrance called a “sara” on the banks of a river outside Charleston, S.C. Saras are held every 7 years after the death of

someone to remember his or her soul. The ceremony was held on the site of at least two slave auctions.


Attendees told Nelson their results from African Ancestry had allowed them to feel that they could participate in this ceremony of remembrance. The ceremony “gives a lot of psychic and religious satisfaction to those who participate,” she added.

Others have used genetic data to strengthen their legal argument for reparations for slavery. In 2002, activist Deadria Farmer-Paellmann organized a class action lawsuit by descendants of slaves. The lawsuit was dismissed because “the plaintiffs could not establish a personal injury by merely alleging some genealogical relationship to African Americans held in slavery” hundreds of years ago.

Farmer-Paellmann then purchased African Ancestry DNA testing kits for the plaintiffs. She submitted the results of the tests in response to the dismissal. However, the court again rejected the lawsuit because “genetic mapping or DNA testing is alone insufficient to proving decisively a link to a homeland.”

Nelson said the case was one of the first instances “in which an upper-level court has had to deal with commercial and cultural output of the human genome project.”

Some seek to use DNA to unite people of African heritage with Africa. Leon Sullivan, a civil rights activist who focused on creating jobs for African Americans, organized summits beginning in 1991 to bring together African leaders to work on projects related to economic development. By 2008, the summit began encouraging the development and use of DNA testing “to identify specific linkages to African ethnic groups among members of the African diaspora to enable and inform choices about national affiliation.”

Genetic ancestry data has given communities the ability to find information they wouldn’t be able to find otherwise, Nelson concluded. The testing “sits in the center of some of our endeavors to use genetics to advance issues of health equality and move forward with scientific research.” 



## NIH Launches Survey to Gauge Workplace Climate, Harassment

BY ALISON DAVIS

Workplace climate affects how people feel immediately when walking into their work locations. Here at NIH, that might be an office, a lab, a cafeteria, a mail room or the many other spaces in which NIH staff work. On average, people spend about a third of their life at work, so workplace climate matters: it's the atmosphere in which we interact with all kinds of people—solving problems and providing solutions, designing and conducting experiments and creating and sustaining collaborations of all types.

Right now, NIH is in the process of finding out firsthand what staff—including employees, contractors, fellows, trainees and special volunteers—think and how they feel about their work environments. The inaugural NIH Workplace Climate and Harassment Survey, launched Jan. 28, is a concerted effort to measure the climate in dozens of workplaces at NIH in Bethesda and also at the agency's properties across the nation.

### Important Points About the Survey

It is confidential and anonymous.

You can take it at your convenience on your mobile device or computer.

You can save your responses and return to it later, but it's important that you click "submit" to register your responses.

You can skip any questions you don't feel comfortable answering.

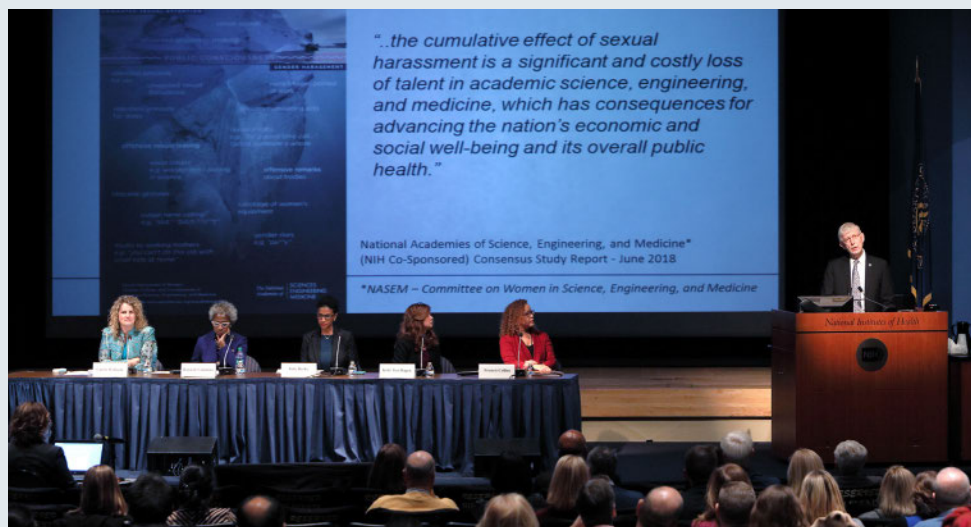
We need a strong response rate to understand how we can address harassment and improve the NIH workplace climate.

The survey runs from Jan. 28 to Mar. 25.

Visit [diversity.nih.gov](https://diversity.nih.gov) for more information about the survey.

You can access the survey through a personalized link embedded in an email you received from the Science and Technology Policy Institute, an independent contractor administering the survey.

The survey, aimed at measuring the effects of workplace climate on NIH staff, is a vital part of the NIH Anti-Harassment



Above, at a recent town hall meeting, NIH director Dr. Francis Collins, alongside a panel, addresses workplace climate. At right, Debra Chew, EDI director, speaks on the topic.

PHOTOS: CHIA-CHI CHARLIE CHANG

Program, which was addressed at an agency-wide town hall meeting in December 2018. The survey's results will help shape efforts to create a workplace climate that is conducive to the highest quality work and one in which uncivil behavior of any kind is unwelcome and not tolerated. Because workplace climate is known to have consequences on people's attitudes toward their work and affects their health, the survey goes beyond harassment and asks questions about job satisfaction, career choices and general wellness based on the overall climate of the workplace.

"Looking closely at our own atmosphere is a crucial step in understanding the role of harassment in job satisfaction, performance and the ability to live the NIH mission every day," said NIH director Dr. Francis Collins. "At the most fundamental level, our mission is about the respect of human life, which should permeate all aspects of our lives and work."

The NIH Workplace Climate and Harassment Survey isn't just for scientists, nor is it only for women. Dr. Hannah Valentine, NIH's chief officer for scientific workforce diversity and a physician-scientist in the NHLBI intramural research program, and her team developed the survey with national experts in survey design. She explains that the survey looks more broadly at all inappropriate and

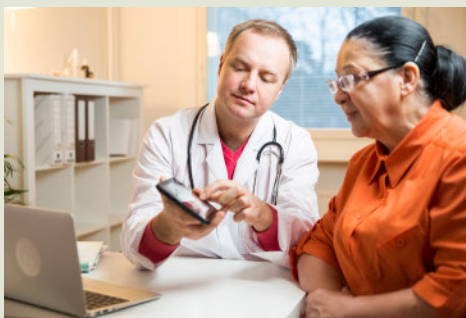


disruptive behaviors, including other types of harassment and bullying. For this reason, it's important for all NIH staff to take the survey.

"We need to hear from everyone at NIH about their workplace experiences, good or bad," said Valentine. "Only then can we figure out how to address any problems identified with targeted solutions." She added that the survey is not a reporting tool—anyone who has experienced harassment should report it via the NIH Civil program.

Understanding workplace environment is key to preventing and addressing harassment. According to a June 2018 report from the National Academies of Science and Engineering, organizations that are tolerant of harassment—or that are perceived to be tolerant of harassment—show higher rates of sexual harassment than those seen as intolerant. To achieve its goal of measuring the NIH climate—and as with any survey—the more data the better.

The survey will close Mar. 25, so if you haven't taken it already, take it today. If you've started the survey but not completed it, finish it today.



Study results showed that intensive glucose management did not improve functional outcomes at 90 days after stroke compared to standard glucose therapy.

IMAGE: SASHA\_SUZI/THINKSTOCK

## Study Answers Question on Blood Sugar Control After Stroke

Hyperglycemia, or increased glucose, is common in patients with acute ischemic stroke and is associated with worse outcomes compared to normal glucose levels. Doctors all over the world have debated whether intensive glucose management, which requires the use of IV insulin to bring blood sugar levels down to 80-130 mg/dL, or standard glucose control using insulin shots, which aims to get glucose below 180 mg/dL, lead to better outcomes after stroke. Primary results from the Stroke Hyperglycemia Insulin Network Effort (SHINE) study—a large, multisite clinical study supported by NINDS—provided a clear answer to that question.

The primary results showed that intensive glucose management did not improve functional outcomes at 90 days after stroke compared to standard glucose therapy. In addition, intense glucose therapy increased the risk of very low blood glucose (hypoglycemia) and required a higher level of care such as increased supervision from nursing staff, compared to standard treatment. SHINE findings were presented at the International Stroke Conference on Feb. 6.

## Psoriasis Treatment Linked to Improvement in Heart Artery Disease

Researchers have found that treating psoriasis, a chronic inflammatory skin disease, with biologic drugs that target immune system activity can reduce the early plaque buildup that clogs arteries, restricts blood flow and leads to heart attacks and stroke. The findings highlight how immunotherapies that treat inflammatory conditions might play a role in the reduction of cardiovascular disease risks. The study, funded by NHLBI, appeared online Feb. 5 in *Cardiovascular Research*.

“Classically a heart attack is caused by one of five risk factors—diabetes, hypertension, high

cholesterol, family history or smoking,” said Dr. Nehal Mehta, head of NHLBI’s Laboratory of Inflammation and Cardiometabolic Diseases. “Our study presents evidence that there is a sixth factor, inflammation, and that it is critical to both the development and the progression of atherosclerosis to heart attack.”

Now researchers have provided first-in-human evidence that treatment of a known inflammatory condition with biologic therapy, a type of drug that suppresses the immune system, is associated with a reduction in coronary artery disease, in particular of rupture-prone plaque that often leads to a heart attack.

## Mental Health Disorders Common Following Mild Head Injury

A new study reveals that approximately 1 in 5 individuals may experience mental health symptoms up to 6 months after mild traumatic brain injury (mTBI), suggesting the importance of follow-up care for these patients. Scientists also identified factors that may increase the risk of developing post-traumatic stress disorder (PTSD) and/or major depressive disorder following mTBI or concussion through analysis of the Transforming Research and Clinical Knowledge in Traumatic Brain Injury (TRACK-TBI) study cohort. The study was supported by NINDS. Findings were published in *JAMA Psychiatry*.

“Mental health disorders after concussion have been studied primarily in military populations, and not much is known about these outcomes in civilians,” said Dr. Patrick Bellgowan of NINDS. “These results may help guide follow-up care and suggest that doctors may need to pay particular attention to the mental state of patients many months after injury.”

In the study, Dr. Murray Stein at the University of California, San Diego, and his colleagues investigated mental health outcomes in 1,155 people who had experienced a mild TBI and were treated in the emergency department. At 3, 6 and 12 months after injury, study participants completed various questionnaires related to PTSD and major depressive disorder. For a comparison group, the researchers also surveyed individuals who had experienced orthopedic traumatic injuries, such as broken legs, but did not have head injury.

The results showed that at 3 and 6 months following injury, people who had experienced mTBI were more likely than orthopedic trauma patients to report symptoms of PTSD and/or major depressive disorder.

## Some Gut Cells Slow Down Metabolism, Accelerate Cardiovascular Disease

Researchers have discovered how specific cells in the guts of mice slow down metabolism and



Researchers have discovered how cells in the guts of mice slow down metabolism and eventually contribute to obesity, diabetes, hypertension and atherosclerosis.

IMAGE: ROGER ASBURY/ISTOCK

eventually contribute to obesity, diabetes, hypertension and atherosclerosis. The findings, scientists say, could have important implications for the prevention and treatment of these kinds of metabolic diseases in humans. The study was funded by NHLBI and appears in the journal *Nature*.

“With this research we are connecting the dots between gut metabolic food sensors and cardiovascular disease and might open new therapeutic avenues to treat patients with a host of related conditions,” said Dr. Michelle Olive, program officer in NHLBI’s Division of Cardiovascular Sciences.

The cells are called intraepithelial T lymphocytes (or natural IELs), and when they are not present, researchers discovered, the metabolism of mice goes into overdrive.

“The mice become metabolically hyperactive and, even when consuming a diet very high in fat and sugar, are able to resist metabolic diseases such as obesity, hypertension, hypercholesterolemia, diabetes and atherosclerosis,” said the study’s lead researcher Dr. Filip Swirski, an associate professor at Harvard Medical School and Massachusetts General Hospital.

When natural IELs are present, however, the researchers found that they limit the availability of a type of hormones, incretin GLP-1, that help speed up metabolism. By limiting GLP-1, the natural IELs, in effect, slow down the body’s metabolism and conserve the energy it gets from food.

Over millions of years of evolution, this efficient use of energy provided an essential advantage: when food was scarce, organisms stored rather than burned some of the ingested energy, and they survived longer.

“Now with food so abundant, this energy-saving mechanism can backfire and lead to unhealthy outcomes,” Swirski explained.



Ron Hunt ends long NIH career.

## CSR's Hunt Retires After 43 Years at NIH

BY PAULA T. WHITACRE

Ron Hunt, who retired recently as an administrative officer in the Center for Scientific Review, describes NIH as the biggest influence on his life. Not only did he see first-hand the value of NIH research, he said, but also he learned “not to sweat the small stuff.”

From 1974 to 2000, Hunt was a recreational therapist in the Clinical Center, working with patients, many critically ill, and families. As a member of therapeutic recreation services, he conducted craft, physical and social activities when hospital stays of weeks or months were the norm. Often he helped family members from abroad navigate U.S. life so they could more effectively support their loved ones undergoing treatment.

Among other accomplishments, Hunt created a fitness/weight room when such facilities were not common. Beyond acquiring space and equipment, he overcame management, staff and patient apprehension. “By building the program with input from all, it won enthusiastic support from medical and recreational personnel,” he said, and patients gained a safe place to exercise. He also recalled hearing by phone that he had 20 minutes to get ready to host renowned boxer Muhammad Ali. Hunt remembers Ali’s joking interactions with a

young ICU patient named Frazier (the name of one of Ali’s boxing foes).

“I loved working with patients and seeing their smiles when we helped them,” he said. But he also experienced heartache after the deaths of many patients he came to know well.

“Ron was a center of calm, which was a huge asset,” recreational therapist Debbie Marcus said. “He was a great teacher, whether teaching patients how to relax or

patients as in recreational therapy, he valued “working with people and making things easier for them.”

In 2007, Hunt moved to CSR, where colleagues also praised his calming personality. “His calm was a positive force, he didn’t get rattled,” said Marilyn Cuzzolino, lead AO. “In a demanding environment, he kept things light-hearted.” As AO for various CSR divisions and directors, he worked with scientific review officers, staff and reviewers,

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*“Ron was a center of calm, which was a huge asset. He was a great teacher, whether teaching patients how to relax or co-workers how to deal with computers.”*

-DEBBIE MARCUS

• • •

co-workers how to deal with computers.” In fact, Hunt motivated her to specialize in recreational therapy in her own career at NIH when he gave a presentation at Montgomery College in the mid-1970s.

Hunt earned an M.A. in administration from the University of Maryland’s University College and, in 2000, became an administrative officer in the Office of the Director of the Clinical Center. Two years later, he joined the hospital’s department of clinical research informatics. He supported development of the Clinical Research Information System (CRIS), as well as changes in travel, teleworking and security processes. Although not as connected to

many of whom were new to NIH processes.

His earlier patient contacts reinforced the importance of supporting extramural research as AO. “This place [CSR] is the first stop to finding cures,” he said. “My years in the Clinical Center made the NIH mission very real to me. Working in CSR was another way for me to help further the mission.”

Hunt, a lifelong Washingtonian, will remain in Maryland. He will hone his cooking and gardening skills. His wife works and attends school full-time and his mother and two sons also live in the area, so those skills are in demand. As he learned at NIH, he will focus on what is important in life and not sweat the small stuff.

## NCI Mourns Regan

Carole Kemm Regan, former laboratory manager of NCI’s Laboratory of Cellular and Molecular Biology, suddenly passed away at the age of 72 on Jan. 7.

Regan joined the National Cancer Institute and the precursor to the Laboratory of Cellular and Molecular Biology (LCMB) more than 40 years ago. When she retired in 2017 to spend more time with her grandchildren, she was then the longest-serving member of the lab.

Reflecting on her memory, LCMB chief Dr. Larry Samelson said, “Carole was so warm and always there to help fix everyone’s issues small or large. We all depended on her efforts to make LCMB a better place.”

Regan is survived by daughter Kara and son-in-law John Paul and her three grandchildren: Bobby, Eva and Joseph.



Carole Kemm Regan



On Feb. 1—Wear Red Day—NHLBI director Dr. Gary Gibbons (c) joins NIMHD director Dr. Eliseo J. Pérez-Stable (fourth from l) and others in #OurHearts dance event in the Clinical Research Center atrium.

PHOTOS: MARLEEN VAN DEN NESTE

### ‘HASHTAG OUR HEARTS’ ‘Wear Red Day’ Focuses on Heart-Healthy Benefits of Social Networks

NIH’ers braved snow and bitter cold temperatures to attend a special dance event on National Wear Red Day, Feb. 1. Led by NHLBI director Dr. Gary Gibbons, an enthusiastic crowd gathered in the Clinical Research Center atrium and moved to the beat of heart-pumping music to help kick off American Heart Month.

This year’s theme, #OurHearts, emphasizes the power of social support in helping people make heart-healthy choices. Studies have linked social isolation with obesity, smoking and high blood pressure, all of which can lead to long-term health problems, including heart disease, stroke and cancer. By contrast, social support helps people make healthy lifestyle changes by keeping

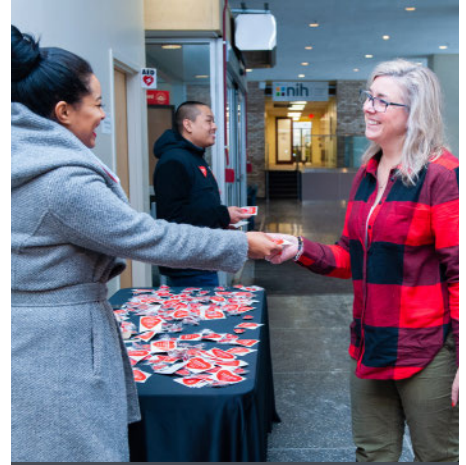
them physically active, promoting weight loss, encouraging healthier eating and helping people quit smoking. Follow the conversation online by using #OurHearts and visiting <https://www.nhlbi.nih.gov/health-topics/education-and-awareness/heart-truth/our-hearts>.

Based on the large number of people wearing red on Feb. 1, there is plenty of social support on hand at NIH. Volunteers spread out over the campus handing out buttons and stickers to encourage others to embrace healthier lifestyles. Other activities included tempting displays of heart-healthy foods at campus cafes and lots of signage across campus declaring “Wear Red Day.”

NHLBI continued Heart Month events throughout February, including live cooking demonstrations on campus featuring heart-healthy foods and more. It’s never too late to join the growing effort to fight heart disease, the leading cause of death among women and men in the United States.



R&W fitness instructor Linda Bessacque leads the crowd in heart-pumping dance moves during Wear Red Day event at the Clinical Research Center.



Volunteers spread out over the campus handing out buttons and stickers to encourage others to embrace healthier lifestyles. Above, in Bldg. 31’s A-wing lobby, a red-wearing employee is rewarded with a pin. Below, braving the cold temps outside, folks at the Metro station sport stickers.



Cafeteria crews in Bldgs. 10 (above) and 31 (below) come bearing fruits—red, naturally.

