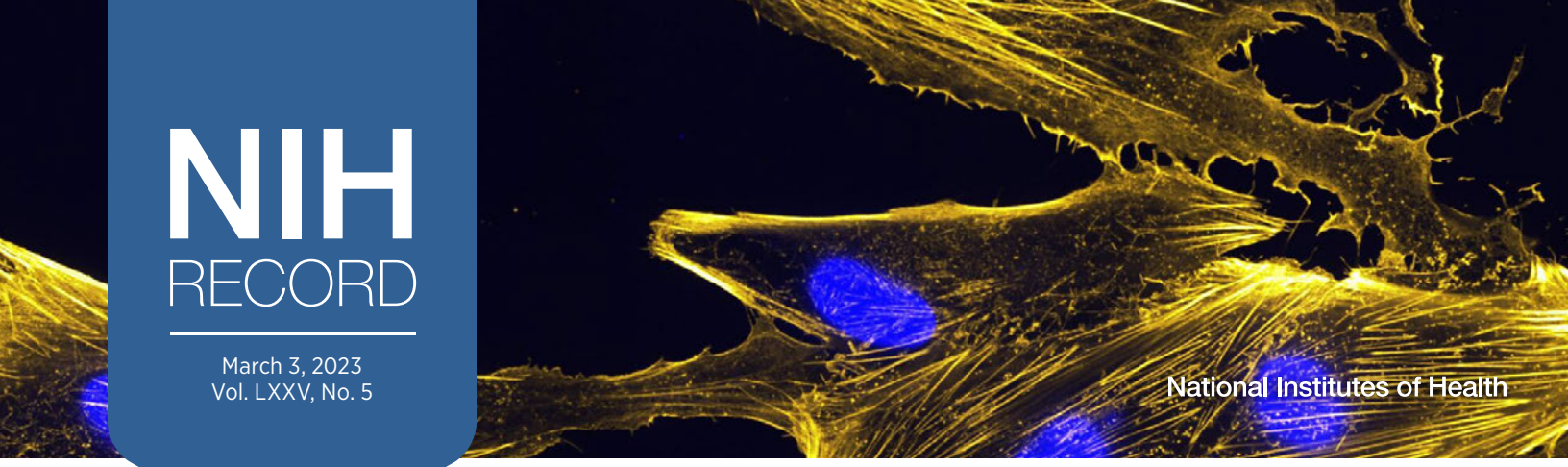
NIH RECORD

March 3, 2023
Vol. LXXV, No. 5



WOMEN'S HISTORY MONTH

Women in Leadership at NIH Offer Perspectives

In honor of Women's History Month, the *Record* caught up with several women—lab scientists, administrators, clinical investigators, veterinarians—in various leadership roles at NIH.

We learned about their backgrounds, how they came to be at NIH, some of the best advice they've received and some of the challenges they continue to face pursuing careers in science, technology, engineering and math. These are the first in the series.

Perseverance Is Key

The best advice Dr. Payel Sen ever received is the same counsel she now dispenses to others.

Dr. Payel Sen, Stadtman investigator and head, functional epigenomics unit, NIA Laboratory of Genetics and Genomics

"There are two key factors that have led me to where I am in the field," she says. "One is learning and the other is persistence. I try to tell my trainees to take this opportunity to learn as much as possible and then be persistent. Set a goal and just keep at it. That's pretty much the magic formula—persistence. Everyone is smart, in their own way, but few have explored the depths of conceptual understanding through deliberate persistence."

Sen put her words into action about 19 years ago when she emigrated from India to the U.S. for grad school in pursuit of her Ph.D.

Early on in school, she'd had several teachers who had piqued her interest in science. Her first choice for college waitlisted

SEE **WOMEN**, PAGE 6

Sen (second from l) and NIA colleagues at the Baltimore Inner Harbor, after a lab lunch

BECOMING BETTER HELPERS

Genetic Counselors Meet to Support Patients, Each Other

BY DANA TALESNIK

Genetic counselors (GCs) provide critical support to patients and caregivers during what often are long, complex medical journeys. Sometimes, GCs also need to guide and support each other.

Genetic Counselor Julie Sapp

At NIH, GCs work with patients who have rare, often life-threatening diseases. Like their patients, GCs have diverse needs and would benefit from the expertise of

SEE **GENETIC**, PAGE 4

Bldg. 15I, one of the "Officer's Quarters" on NIH's main campus, is getting a makeover.

PHOTO: ERIC BOCK

Historic Officer's Quarters Undergo Renovations

BY ERIC BOCK

Two buildings that are part of NIH's historic core are undergoing renovations. Located on the north part of campus, Bldgs. 15H and 15I are part of a group of houses known as the "Officer's Quarters." These are the only

SEE **QUARTERS**, PAGE 8

NHLBI sees red for American Heart Month. See more images, p. 12.

ALSO THIS ISSUE

Take Your Child to Work Day Returns in Hybrid Format, Apr. 27

NIH's 29th annual Take Your Child to Work Day (TYCTWD) returns Thursday, Apr. 27 from 9 a.m. to 4 p.m. ET.

For the first time since the Covid-19 pandemic started in 2020, TYCTWD will offer a limited number of in-person events, along with virtual and pre-recorded activities.

All parents and their children are invited to experience in-person, hands-on experiences as a part of this year's event, which will include Earth Day activities as well. Virtual and pre-recorded activities will be offered for remote workers and employees at other NIH locations.

All 27 institutes and centers are planning a day of discovery for children grades 1-12 to be inspired about science, technology and by experiencing the diversity of careers and research that makes the NIH a special place to work.

Mark your calendars and be on the lookout for emails announcing the key registration days:

Mar. 20, 9 a.m.: Pre-registration (Site opens to enter child/ren's information and preview activities only).

Mar. 28, noon: Registration phase 1 (Register child/ren for up to 2 limited-space activities each).

Apr. 4, noon: Registration phase 2 (Register child/ren for up to 2 additional limited-space activities for a maximum of 4 limited-space activities).

Volunteer opportunities will also be available for students in grades 9-12 to help with virtual activities. For details, visit: https://bit.ly/3IfCOci.

Email questions and comments to Take-Your-Child-To-Work@nih.gov. The Office of Research Services is the primary sponsor of TYCTWD 2023.

Sailing Association Holds Membership Drive

The NIH Sailing Association (NIHSA) is a Recreation & Welfare activity club. Membership is open to NIH (and National Oceanic and Atmospheric Administration) employees, patients, contractors and their families.

The club's main activity is sailing five Flying Scots, owned by the club and maintained in slips south of Annapolis, on the South River. Club meetings are held each month and are open to all members. Yearly membership dues vary according to level of participation. Members qualify to charter club boats by completing the NIHSA basic training course or by demonstrating their competence in a comprehensive checkout sail.

NIHSA provides many opportunities for members to get together and share time on the Chesapeake Bay. Check out the website for details: www.nihsail.org.

NIHSA Open House Set, Mar. 14

Join the NIH Sailing Association (NIHSA) at its Open House on Tuesday, Mar. 14, from 6:30 to 8 p.m. Explore your interest in learning to sail and discover all the opportunities for sailing with the NIHSA. Information will be available about basic training classes, the racing program and all of the other social activities the club offers. For details, visit the website: http://www.nihsail.org/

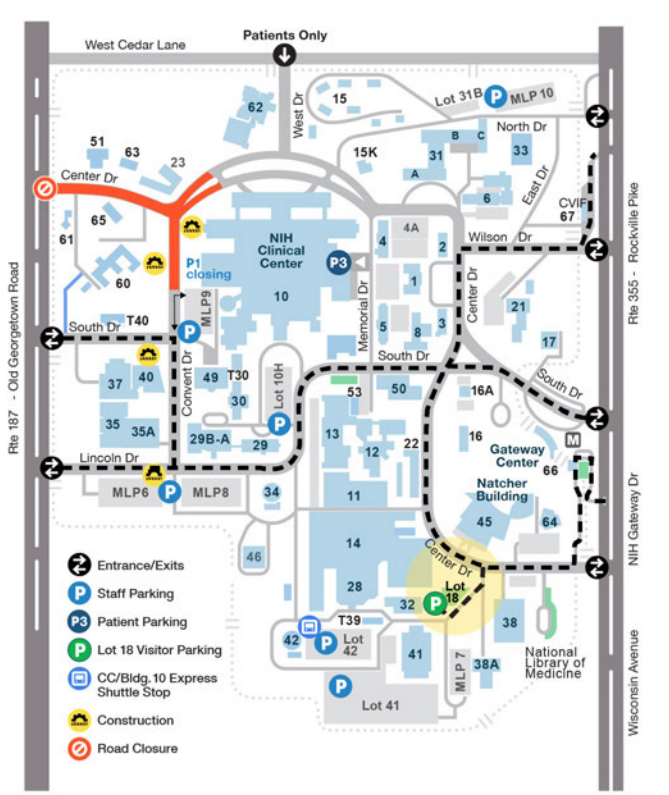
Attend the Open House at Davis Library, Meeting Rm. #1 (downstairs), 6400 Democracy Blvd., Bethesda, MD. Plenty of parking available. If using Metrobus, the J1 and J2 buses leave from the Medical Center Metro station and go directly to Davis Library. Use this link for bus schedule: https://bit.ly/3XGGWYI.

A new surface parking lot (Lot 18) for visitors opened Mar. 1, making 104 spaces available.

PHOTOS: ERIC BOCK

New Visitor Parking Lot on Bethesda Campus Now Open

A new visitor parking lot (Lot 18) with 104 spaces opened Mar. 1. The lot is located on the south side of campus near the National Library of Medicine and Lot 41.



Visitors should use Lot 18 in lieu of Lot 4A (valet parking only) and in addition to MLP-11. See campus parking map at left or online: https://bit.ly/3IPLoXv

Parking hours for the new surface lot are Monday-Friday, 6 a.m.-9 p.m.

The hourly rate is $2 per hour. Beyond three hours, a $12 all-day rate applies.

Both the NIH Campus and Campus Limited shuttles will service Lot 18. For shuttle schedules, see: https://bit.ly/3KKU0cH

For more information, visit the Office of Research Services, Division of Amenities and Transportation: https://bit.ly/3YHr0q9 or contact Sean Cullinane by email: sean.cullinane@nih.gov or phone: (301) 496-9621.

NIH Welcomes Inaugural Class of Climate and Health Scholars

BY ROBIN MACKAR

NIH has selected eight established scientists with expertise in climate and health to work on the NIH Climate Change and Health Initiative. This inaugural class of NIH Climate and Health Scholars will become part of the cross-cutting NIH effort to reduce health threats from climate change across the lifespan and build health resilience in individuals, communities and nations around the world, especially among those at highest risk.

Top, from l: Dr. Carina Gronlund, Dr. Luis Chaves, Dr. Leticia Nogueira, Dr. Ferdouz Cochran. Bottom, Dr. Patrice Nicholas, Dr. Zhen Cong, Dr. Praveen Kumar and Dr. Lauren Clay

PHOTO: COURTESY NIEHS

The diverse group of scientists went through a competitive selection process and began working with NIH staff last month. Each scholar is currently employed at a major university or with a research-based organization but will be hosted by an NIH institute or center for approximately eight months. They will work with staff across NIH to share knowledge and help build capacity for conducting climate-related and health research.

"We see this scholars program as something akin to a residency where we bring in established scientists from outside the government with solid experience in climate and health research to enhance our capabilities at NIH," said Dr. Gwen Collman, strategic advisor for the initiative and director of the scholars program. "Looking at the intersection of climate and health is a relatively new area of research for NIH. We have a few researchers at NIH with expertise in this area, but we need more. There are many staff at NIH who want to learn more about this important issue and expand their knowledge."

Each scholar will be assigned an ambassador or host to help them become familiar with NIH and to develop a customized plan that works toward meeting the objectives outlined in the initiative's strategic framework. Scholars will present their research to many audiences across NIH and engage with both the intramural and extramural communities as everyone works to address the framework's four core elements—health effects research, health equity, intervention science, and training and capacity building.

"We are excited about this new scholars program," said Dr. Rick Woychik, director of the National Institute of Environmental Health Sciences and chair of the initiative's steering committee. "We were fortunate to have an abundance of interest from many highly qualified applicants. I think we will all learn a great deal about how to integrate climate and weather data into health research and so much more."

Woychik noted that the program had enthusiastic support throughout NIH and that the first year of funding came from the NIH Office of the Director.

The expertise of the scholars includes work in the United States and abroad that has focused on studying the health benefits of weatherization, reducing the community health impacts of weather-related disasters, understanding the effect that rising temperatures have on infectious disease rates, implementing evidence-based interventions in vulnerable populations, and establishing environmental climate and justice programs.

In addition, the scholars have sought to influence policy and programming to reduce health disparities, including in older adults.

Detailed bios and pictures are provided at https://www.nih.gov/climateandhealth. To read the framework, visit: bit.ly/3ltGYp4

Meet the 2023 NIH Climate and Health Scholars

Dr. Luis Fernando Chaves Associate Professor, Department of Environmental and Occupational Health, School of Public Health, Indiana University Bloomington
Host: NIAID

Dr. Lauren Clay Associate Professor & Department Chair, Department of Emergency Health Services, University of Maryland, Baltimore County
Host: NIMHD

Dr. Ferdouz Cochran Climate-Health Science Lead, Health Innovation Center at MITRE Labs
Host: NIEHS

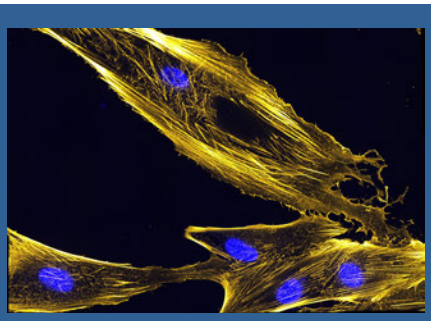
Dr. Zhen Cong Professor, Environmental Health Sciences, School of Public Health, University of Alabama at Birmingham
Host: NIA

Dr. Carina Gronlund Research Assistant Professor, Survey Research Center, Institute for Social Research, School of Public Health, University of Michigan
Host: NHLBI

Dr. Praveen Kumar Assistant Professor, School of Social Work, Boston University
Host: Fogarty International Center

Dr. Patrice K. Nicholas Distinguished Teaching Professor and Director, Center for Climate Change, Climate Justice, and Health, Massachusetts General Hospital Institute of Health Professions
Host: NINR

Dr. Leticia Nogueira Senior Principal Scientist, American Cancer Society
Host: NCI



ON THE COVER: *Immunofluorescence image of actin bundles in muscle precursor cells called myoblasts. The actin is labeled with fluorescently tagged phalloidin, a toxin from the Amanita phalloides mushroom. Nuclei are shown in blue.*

IMAGE: ALEX RITTER, JENNIFER LIPPINCOTT-SCHWARTZ AND GILLIAN GRIFFITHS, NIH

The NIH Record

Since 1949, the *NIH Record* has been published biweekly by the Editorial Operations Branch, Office of Communications and Public Liaison, National Institutes of Health, Department of Health and Human Services. For editorial policies, email nihrecord@nih.gov.

Editor:
Carla Garnett • *Carla.Garnett@nih.gov*

Associate Editor:
Dana Talesnik • *Dana.Talesnik@nih.gov*

Assistant Editor:
Eric Bock • *Eric.Bock@nih.gov*

Editorial Intern:
Amber Snyder • *Amber.Snyder@nih.gov*

Subscribe via email: **https://go.usa.gov/x6mgQ**
Follow: **nihrecord.nih.gov/**

The NIH Record is recyclable as mixed paper.

National Institutes of Health
Turning Discovery Into Health

Genetic

CONTINUED FROM PAGE 1

multiple counselors. But there's no single department for GCs at NIH. They come from many specialties and work in different institutes, heightening the need for a collaborative effort.

That effort is the Genetic Counselors Clinical Supervision Group, currently 21 GCs from seven NIH institutes who have met continuously in different iterations for more than 25 years. Each month, they discuss one or two particularly challenging cases confidentially—always protecting the patient's identity—and receive feedback from GC colleagues across NIH.

"This group has been a source of professional development, support, mentoring and connection for many of us who are not working with other genetic counselor colleagues every day," said Jennifer Sloan, a molecular geneticist and GC with the National Human Genome Research Institute (NHGRI), who has participated in the group for 18 years and counting.

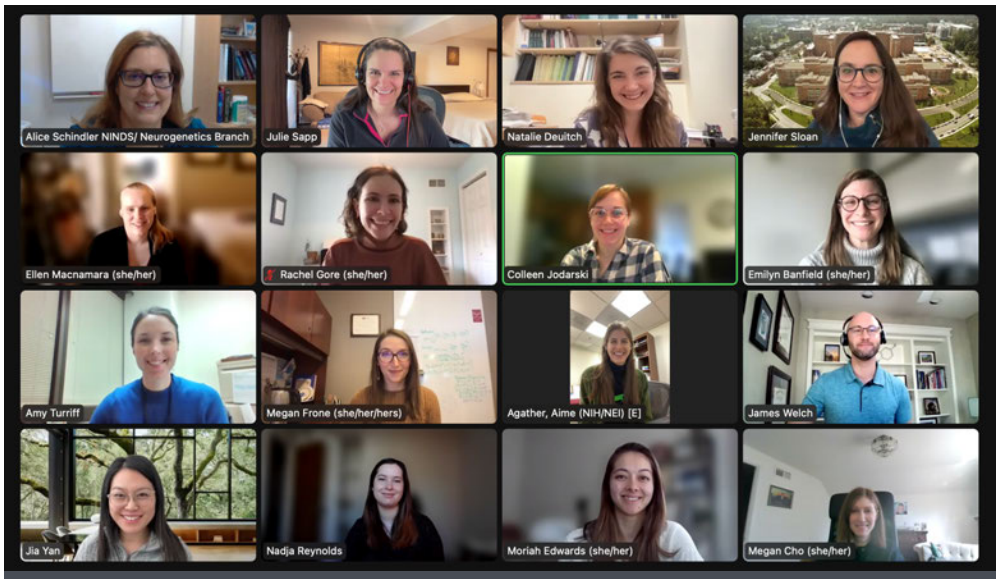
The GCs find it rewarding to work with colleagues across disciplines.

"I personally know nothing about, say, immune disorders, but my patients with other rare syndromes also live at risk for serious complications and experience progression of their conditions over time," said Julie Sapp, a genetic counselor at NHGRI. "There are commonalities across all of these patient populations."

Genetic counselors take on many roles, from guiding patients and families through genetic testing to educating them about their inherited diseases—which often have few if any treatments—and providing psychosocial support. At NIH, they work on a range of conditions—immunodeficiency, cancer, adult-onset neurological disorders and other serious genetic diseases.

"This group gives us a time and space to process these very difficult cases and stories with our peers to help us be better helpers and serve our patients better," said Sapp.

The monthly meetings allow the group to not only discuss cases, but also self-reflect. "They can talk about counseling and communication skills and refine their skills over time, and [the discussions] help them understand the psychological needs of others," said Debbie Snyder, senior advisor to the National Institute of Mental Health clinical director, who has worked with the group from the beginning.



Genetic counselors from across NIH meet regularly to discuss complex patient cases and support each other. The meetings went virtual during the pandemic.

Snyder, a social worker with a background in psychiatry and psycho-oncology, conducts psychotherapeutic interventions for medical and surgical patients. She is not, however, a genetic counselor.

NIMH's Deborah Snyder, the GC group's 'the heart and soul'

Snyder first came to NIH in 1992, a time when the Human Genome Project was well underway and, she recalled, discussions were swirling about whether the GC field should focus more on data or the counseling side or some combination of each.

Three years later, GC colleague Dr. Barbara Biesecker asked her to facilitate a new case-based clinical supervisory group. Eager to bring her mental health perspective to such a setting, she helped launch the group and remains actively involved.

"Genes and all this molecular stuff are not in Debbie's wheelhouse, and it doesn't need to be," said Sapp. "She is the heart and soul of this group. She has this phenomenal institutional knowledge and insights that are crucial."

Initially, there were three participants. They set the ground rules and over time the group continued to expand. Snyder reflected on why the group is a lifeline to its members.

"If you think about relaying bad news, like a Huntington's diagnosis, and the challenges of delivering the results—we're talking about human beings and the threat to health and quality of life and survivability—you need to be able to deploy good counseling skills and communication techniques," she said. "And you have to know what it means to be a witness to someone's psychological pain.

"There are opportunities for empathic misses where, if you miss, that will have consequences for how the patients hear and process things and how they communicate back to you," Snyder said. "This can really impact not only clinical interactions but clinical research as well, not to mention the professional fulfillment and meaning for the genetic counselor."

A recurring theme in their meetings is how to help patients and families process grief and loss. How do patients cope with impending disability from a progressive disorder? How do they handle the unexpected way their lives turned out and how

their disorder might affect their families and future children? How do they manage uncertainty, guilt and stigma?

Jennifer Sloan

There are countless questions and emotions GCs strive to help patients identify and manage during their brief encounters—self-disclosure, family dynamics, cross-cultural issues, suicidal ideation.

Then there are the self-reflective, GC-centric matters: empathy, boundaries, burden of work, ethical issues, for instance. "It's burgeoned into this professional development, well-being group," Snyder said.

"We talk a lot about our clinical roles," said Sapp. "NIH exists to generate research that benefits populations...We discuss how to balance [having] meaningful clinical interactions with individual patients and families while also realizing we're part of teams. We have our own distinct research interests though the goal is not just for the individual to benefit, but the whole population."

The GCs group kept gathering through the Covid-19 pandemic though, like everyone else, pivoted to virtual meetings.

"I think [the group] became an even more valuable outlet during the pandemic," said Sapp, "because we had different things to process. Our relationships with our patients differed...we were encountering a new set of challenges."

Continuing to meet, added Snyder, "was a powerful way to give people a sense of connection and community, reduce isolation, acknowledge a shared experience and manage through the uncertainty as a group, when we couldn't see each other in person."

As the GCs come together in the now hybrid environment and work with people who have rare, difficult-to-treat disorders, the hope is always for breakthroughs, and NIH is getting closer to that goal.

"In the last few years," said Sapp, "we're starting to see people who are in therapeutic trials, which reflects the degree to which genomics has started to make inroads into therapeutic options, and why NIH is such an incredible place to see these patients."

The GCs and their NIH colleagues are laying the groundwork for these trials. Sapp is working on a phase 2 trial for a 1-in-10-million disorder; Sloan is working on a gene therapy trial for patients with a life-threatening metabolic disorder.

"We can be even better cheerleaders for the Clinical Center if we not only help our patients adapt better to their medical circumstances, but also bring the same kind of compassion to ourselves and our colleagues," said Sapp. "We can do work here we can't do anywhere else, and this group of dedicated GCs helps facilitate those efforts."

Marchiano Wins 2021 Safety Award

Nathan Marchiano of the Clinical Center's Department of Transfusion Medicine (DTM) recently received the 2021 NIH Mission First Safety Always Award presented by the Office of Research Services' Division of Occupational Health and Safety.

Since 2013, the award has recognized those who demonstrate leadership, innovation and involvement in their organization's safety culture. Nominees are people who go above and beyond observing and implementing their organization's safety practices and make safety a prominent part of their program.

Nathan Marchiano (l) of the Clinical Center's Department of Transfusion Medicine receives the 2021 NIH Mission First Safety Always Award from Roxy Grossnickle, manager of the Office of Research Services' Community Health Branch.

PHOTO: JACKIE GLASS

Nominated by DTM coworker Patricia Buziak, Marchiano is section lead for the emergency release drills (emergency release of blood for patients) and holds practice sessions monthly. This drill process resulted in improvement of response times to emergencies and better adherence to the standard operating procedures for blood emergencies.

Marchiano also worked with the DTM safety officer to procure MPW box lids and trained staff on safe usage and cleaning of the lids.

According to the nomination, "Marchiano shows leadership in continuously looking for unsafe conditions and working to correct the issues; helping team leads meet safety requirements; staying familiar with DTM safety SOPs; and discussing all safety issues with the DTM safety officer. He engages his peers in meetings by asking safety-related questions and has given a safety quiz during a fun activity."

In addition, Marchiano serves as the emergency resource person for his group and makes sure all important documents are updated.

There's still time to nominate a safety superstar for 2022 through Mar. 3. Recommended individuals must demonstrate safety leadership, with practical examples in two or more of the following areas:

- Safety-informed leadership attributes that set the nominee apart from peers.
- Initiating and/or leading a successful safety initiative.
- Engaging peers and transforming the safety culture of the organization.
- Promoting safety as an integral part of a program.
- Working to correct unsafe or unhealthful workplace conditions or hazards in the organization.

The nominee must be an NIH employee, contractor or special government employee. Groups may be nominated. The nomination must come from someone other than the nominee (you can't nominate yourself).

Questions? Email glassjac@nih.gov or send written questions to: NIH/OD/ORS/DOHS (Attn: Jacqulin Glass), Bldg. 13, Rm. 3K04, 13 South Drive, MSC 5760, Bethesda, MD 20892-5760).

Women

CONTINUED FROM PAGE 1

her, however. But, she didn't let the disappointment and temporary delay stop her, not only graduating college but also earning a Ph.D. in molecular biology, microbiology and biochemistry and moving on to postdoctoral training at the University of Pennsylvania. Her perseverance paid off. She joined NIH in 2019 as a Stadtman tenure-track investigator.

Over the last two decades, Sen observes, a lot has changed for career scientists.

"If I compare the biomedical field [19 years ago] versus now," she notes, "I think the competition has gotten tougher. It's now more difficult to publish. You need lots of data analysis. Big data—that entire revolution—has completely changed things. It has become more competitive, but it's also become highly innovative. There are so many technologies now."

Still, she advises her trainees to "just keep swimming. What's true in science also applies to life in general—you may not always get good results, or there might be disappointments and things may be slow at some point. But eventually, in retrospect, everything makes sense. All the effort that you put in makes sense. The whole point is to just keep going."**—Carla Garnett**

Protecting People Is Priority

Working as an infectious disease specialist during the Covid-19 pandemic was a nerve-racking yet fulfilling time for Dr. Emily Erbelding. She and her staff were laser-focused, collaborating across government "in constant planning to move the vaccine development effort forward," she said.

Dr. Emily Erbelding, director, Division of Microbiology and Infectious Diseases, NIAID

"It was a lot of work and a lot of pressure, because of the public health consequences and the impact the epidemic was posing for the American people and worldwide."

Meanwhile, Erbelding worried about the physical and mental health of the more than 200 staffers she manages in the Division of Microbiology and Infectious Diseases (DMID). Some caught the virus; all were constantly anxious about becoming exposed.

But looking back, she is grateful for the mass effort that led to launching the first phase 1 trial of the Moderna vaccine so quickly. "I'm proud we were able to move as fast and be as flexible and nimble as we were back in 2020."

Erbelding is an infectious disease physician who treated patients and taught at Johns Hopkins School of Medicine before coming to NIH. When the opportunity arose to shift to government and remain in public health, she leapt at the chance, arriving at NIAID in 2010 as deputy director of the Division of AIDS.

"I always liked biological science and anything related to health," she said. "The life of a cell and the processes, particularly when they cause disease, always fascinated me." Ultimately it became her career path.

Erbelding is glad to see more women pursuing science careers. In DMID, most of the scientific staff are women, she noted, which she attributes to a work culture that increasingly values work-life balance.

It's concerning though that many women scientists still can't envision themselves advancing in their careers. She said, "I think for younger women, or people from a non-white demographic group, if they don't see others like themselves represented at the top, they might not set goals that would allow them to progress to leadership positions."

For junior employees, Erbelding recommended finding a mentor, preferably more than one. Ask how they got where they are, what hurdles they cleared, how to make progress in that area of science.

"Don't be shy about trying to initiate those sorts of conversations that might lead to really good advice."**—Dana Talesnik**

Dr. Sadhana Jackson, NIH distinguished scholar, pediatric neuro-oncologist, NCI and NINDS

Former Intern Returns to NIH

In 1998, Sadhana Jackson first arrived at NIH as a senior at Gaithersburg High School. She was part of the Howard Hughes Medical Institute-NIH Research Scholars Program that brought high school students to conduct research in NIH labs.

Following college, medical school, pediatric residency and two fellowships, Dr. Sadhana Jackson returned in 2015 to conduct research and provide patient care as a pediatric neuro-oncologist at both the National Cancer Institute and National Institute of Neurological Disorders and Stroke.

One of her proudest professional achievements was completing her pediatric neuro-oncology training.

"After a long road of 15 plus years, I felt more than satisfied to have accomplished so much over time," she said.

Jackson first became interested in science as a career in the 7th grade. She attended "Having Fun with DNA," an all-girls summer camp.

"We learned what DNA was, all about DNA fingerprinting since many exciting criminal cases were using this technology, and how best to extract DNA from varied cells," she recalled. Jackson and her fellow campers also learned what it takes to become a professional researcher.

In addition to caring for neuro-oncology patients and leading a lab focused on the challenges of drug delivery due to the blood-brain barrier among malignant gliomas, Jackson led the Power of an Inclusive Workplace Recognition Project.

Through NIH UNITE (https://www.nih.gov/ending-structural-racism/unite), the Recognition Project focuses on diversifying art within NIH buildings and digital spaces. The artwork is meant to highlight the diversity of NIH staff and reflect the diversity of our nation to promote a sense of inclusivity and belonging.

"After walking down these hallways seeing the monotonous portraits, my UNITE team and I put in hard work and energy to jump start these efforts," she said. "I really enjoyed working with the medical artists to capture NIH staff portraits that could be beautifully displayed across buildings 1, 10 and 31. I look forward to seeing more artwork around campus that reflects the richness of our staff and those we serve."

Jackson receives emails from staff who are happy to see more diverse portraits around campus. They tell her they are starting to "feel seen" in the NIH historical lens.

"Being seen is experiencing a close bond or relationship with a person or place," she wrote in an April 2022 op-ed in *STAT*. "Identifying common ties provides a foundation of belonging and togetherness that motivates positive interactions and potentiates constructive systemic changes."

For those considering a career in science, Jackson advises, "Keep your head up, despite setbacks and disappointments. Stay confident and know persistence always wins the race."**—Eric Bock**

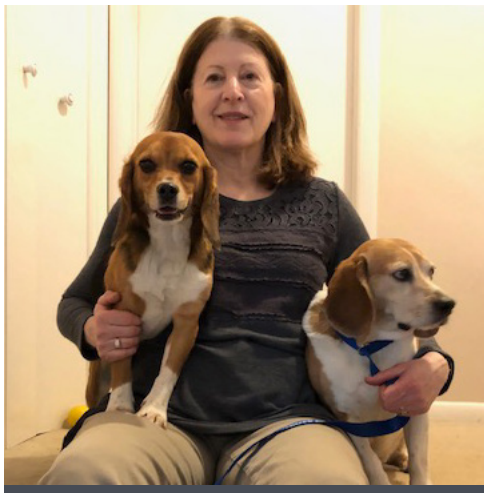
Safeguarding Research Animals

Java, an 18-month-old mini beagle, snuggled up to Dr. Lisa Portnoy on a video chat to discuss her career. Adopted by Portnoy, Java is now a stay-at-home pet after training vet technicians for nine months in New York.

Portnoy's other beagle, 6-year-old Hootie, is a therapy dog who came to NIH for a research study but wound up unable to participate, so she adopted him too.

As for Portnoy's career, she reviews Clinical Center animal care and use protocols to make sure research animals are treated humanely. "We cover a handful of other groups [smaller ICs without their own animal programs] plus the Clinical Center investigators," she said.

For Portnoy, a veterinarian and a diplomate in the American College of Laboratory Animal Medicine, working with animals



Dr. Lisa Portnoy, animal care director, Clinical Center

seemed a natural choice. "Some of us are more comfortable working with animals," she said. "I like them all, even the creepy crawlies."

Reflecting on how the biomedical workforce has evolved since she entered it, she said, "More and more women are now becoming veterinarians and researchers running their own labs. We're taking over."

Her advice to budding scientists stems from a hard lesson she learned. Portnoy had expected to easily get accepted to in-state veterinary school in Michigan but didn't get in on her first try because, at the time, she lacked large animal background training. Do your homework, she advised. Look at requirements before you apply.

Portnoy has worked at NIH for almost 20 years. She conducts site inspections of animal facilities and trains investigators. "We're making sure we're living by the letter of the law," she said. "There's a lot of inspection and oversight, contrary to what the public might think.

"We care greatly about our animals, and it just kills us when things don't go well, especially when we think we've done everything we can do to prevent any untoward event."

When Portnoy trains investigators, she tells them that while all white mice might look alike, handle each with care. "What you do with an animal is with his or her one and only little life," she said. "Honor that life."
—Dana Talesnik

The *NIH Record* series saluting NIH'ers for Women's History Month continues in the next edition, Mar. 17.

NIH Launches 'ScHARe'

The NIH ScHARe social science data repository and research collaboration platform has been launched.

Developed by the National Institute on Minority Health and Health Disparities and the National Institute of Nursing Research, ScHARe (Science Collaborative for Health Disparities and Artificial intelligence bias REduction) aims to increase participation of people from underrepresented populations in data science and cloud computing so that everyone can benefit from the research opportunities afforded by big data.

The platform enables researchers to:

- access a wealth of social determinants of health and other social science datasets
- use cloud computing tools and secure workspaces that allow easy, low-cost analysis of these data
- foster collaborations to develop AI bias mitigation strategies and advance health disparity and health care delivery research using big data

To stay up to date as new datasets and tools/resources become available or receive other ScHARe-related news, subscribe to the email list at https://bit.ly/3KhBdW4.

Also, join a ScHARe Think-a-Thon, an interactive webinar for anyone interested in leveraging the power of cloud computing for robust and ethical health disparities, health care outcomes and AI bias mitigation research.

Think-a-Thons are for people from all career levels, disciplines and levels of background knowledge. The next session is set for Wednesday, Mar. 15, from 2:30 to 4:30 p.m. Visit https://www.nimhd.nih.gov/resources/schare/think-a-thons.html for the schedule.

Never Miss an Update

Are you interested in learning about campus food truck and community market schedules, in-person and virtual fitness classes, informational webinars, R&W merch and other specials and offerings? The NIH Recreation and Welfare Association (R&W) provides programs and opportunities for employees, offering a variety of social, athletic, wellness, educational and special interest activities. Stay connected. Sign up for the R&W e-newsletter here: https://bit.ly/3IkSFX8.

A present day view of 15H and 15I on North Drive. The Bethesda campus residences, originally built in the 1940s, are undergoing renovation.

PHOTO: ERIC BOCK

Quarters

CONTINUED FROM PAGE 1

small-scale residences on campus.

Constructed around 1940, Bldgs. 15H and 15I and six nearby duplexes were originally reserved as living quarters for Public Health Service officers and HHS and NIH senior staff. When the structures first opened, PHS surgeons who worked off campus were allowed to live in the residences.

A housing shortage at the time led to stricter policy. In 1942, then-Surgeon General Dr. Thomas Parran Jr. wrote a memo stating, "quarters of the National Institute of Health should be used by personnel attached to the Institute and not by other Public Health Service officers on duty in Washington."

Previous occupants have included NIH directors Dr. Rolla E. Dyer, Dr. James

Previous occupants of the buildings have included several former NIH directors.

PHOTOS: COURTESY OFFICE OF NIH HISTORY AND STETTEN MUSEUM

Shannon, Dr. James Wyngaarden and Dr. Bernadine Healy, among others.

Today's policy says Bldgs. 15H and 15I are reserved for the NIH director and the assistant secretary for health and "if for any reason they choose not to occupy either residence, the surgeon general may be assigned to these quarters."

In recent times, senior officials and the surgeon general were not interested in residing in the houses, so the units were made available to graduate student fellows working in NIH laboratories. All occupants are required to pay market rental rates.

Buildings 15H and 15I were constructed in 1940 as living quarters for public health service officers.

PHOTO: COURTESY OFFICE OF NIH HISTORY AND STETTEN MUSEUM

Renovations began April 2022 because the rear porches started to crumble. It was unsafe for residents to exit the back of the building in case of an emergency. Since work had to be done anyway, the Office of Research Facilities took the opportunity to make additional repairs as well. Areas of work include the entry porches, the east enclosed porches, the rear terraces and retaining walls and the chimneys.

Renovations are scheduled to be completed next month.

PHOTO: ERIC BOCK

Renovations are expected to conclude in April 2023.

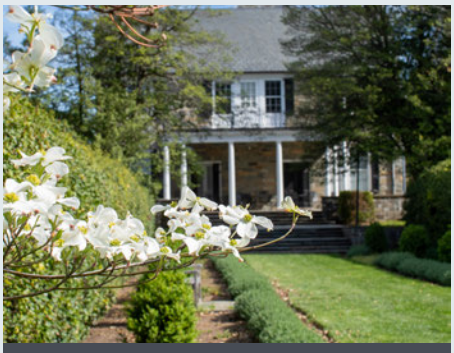
Renovations will preserve the building's historic character. Both buildings are eligible for listing in the National Register of Historic Places. The register is composed of districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. R

Share the First Signs of Spring

Have you seen any signs of spring where you work? The *NIH Record* is looking for images that the season is changing. Email your hi-resolution image with brief caption to nihrecord@nih.gov by Monday, Mar. 6 and you could see it in our Mar. 17 issue.

It's Good to See You!

Have you missed your colleagues? Doesn't it feel good to see, well, some of them in person again? The *NIH Record* wants to publish photos of you and co-worker friends happily back in the office—whether collaborating by your laptops, smiling over cups of coffee, or taking a walk on your break. Send your photo with a brief caption to nihrecord@nih.gov.



View from last spring, on the Bethesda campus near Stone House

PHOTO: DUSTIN HAYS/NEI

Shokat, Patapoutian To Deliver Upcoming WALS Talks

The Wednesday Afternoon Lecture Series (WALS) will feature two high-profile lectures in March.

First up is Dr. Kevan Shokat, professor and HHMI investigator at University of California, San Francisco, and University of California, Berkeley, who will deliver the NIH Director's Lecture on Mar. 8 at 2 p.m. ET, titled "Overcoming the Undruggable Nature of the Most Common Human Oncogene K-Ras."

Dr. Kevan Shokat

Shokat develops drugs against some of the most common drivers of human cancers. The target protein K-Ras is one such driver, long considered "undruggable" by most cancer researchers after 40 years of failed attempts to block its function. Shokat's discovery of a K-Ras blocker broke through this barrier and threw open the doors to a new class of cancer treatments.

Then, on Monday, Mar. 13, Dr. Ardem Patapoutian of Scripps Research Institute will deliver the annual Marshall W. Nirenberg Lecture, titled "How Do You Feel? The Molecules That Sense Touch."

Dr. Ardem Patapoutian

Patapoutian was awarded the Nobel Prize in Physiology or Medicine in 2021 with Dr. David Julius for discoveries of receptors for temperature and touch. His current research investigates ion channels that act as polymodal chemosensors and play an essential role in pain and inflammation. Small molecule antagonists of TRPA1, one of the ion channels identified in the Patapoutian lab, are in phase I clinical studies.

Both lectures will be held in Lipsett Amphitheater, Bldg. 10, and viewable online via NIH videocast.

Email WALSoffice@od.nih.gov for reasonable accommodation. More information about WALS is posted at https://oir.nih.gov/wals.

Single-Dose Antibiotic Prevents Maternal Sepsis, Death

A single oral dose of the antibiotic azithromycin can reduce the risk of postpartum sepsis and death among women who deliver vaginally by one-third, based on a large, NIH-funded multi-country clinical trial.

PHOTO: SOMNATH MAHATA/SHUTTERSTOCK

Only 1.6% of women in the study who received azithromycin during labor developed sepsis or died within six weeks after delivery, compared to 2.4% of those who received placebo. Azithromycin did not reduce the risk of stillbirth, newborn sepsis or newborn death.

Results from the study, which enrolled more than 29,000 women in seven low- and middle-income countries, were published in the *New England Journal of Medicine*.

"These findings have the potential to change clinical practice by providing a safe, effective and low-cost approach to reduce the global burden of maternal sepsis and death," said Dr. Diana Bianchi, director of NICHD, the primary funder of the trial. "We urgently need effective strategies to prevent pregnancy-related infections, which account for roughly 10% of maternal deaths worldwide."

The trial, called A-PLUS, was co-funded by the Bill & Melinda Gates Foundation through a grant to the Foundation for the National Institutes of Health, a non-profit organization that manages multinational research projects implemented through alliances with public and private institutions in support of the NIH mission. NICHD's Global Network for Women's and Children's Health Research conducted the study.

Sepsis—a life-threatening complication of bacterial and other infections—is a leading cause of maternal and newborn deaths worldwide, especially in low- and middle-income countries. Azithromycin, an inexpensive antibiotic effective against a broad range of bacteria, is known to reduce maternal infection when given intravenously during cesarean delivery.

Launched in 2020, A-PLUS enrolled women at NICHD Global Network sites in Bangladesh, the Democratic Republic of the Congo, Guatemala, India, Kenya, Pakistan and Zambia.

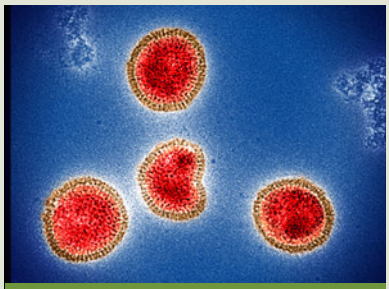
In addition to a reduced risk of maternal sepsis and death after delivery, women who received azithromycin were less likely to develop endometritis (infection of the lining of the womb) and other infections. They also had fewer hospital readmissions and unscheduled health care visits, compared to the placebo group.

Researchers Find Links Between Viruses, Neurodegenerative Diseases

Previous research has suggested that viruses may play a role in certain neurodegenerative diseases. One recent study found a link between Epstein-Barr virus infection and the risk of multiple sclerosis (MS).

In a new study, a research team led by Drs. Mike Nalls, Kristin Levine and Hampton Leonard of NIH's Center for Alzheimer's and Related Dementias examined links between viruses and neurodegenerative disease more generally. To do so, they analyzed data from the FinnGen project—a repository of biomedical data from more than 300,000 people in Finland.

The team searched the biobank for people who had been diagnosed with one of six different conditions: Alzheimer's Disease (AD), amyotrophic lateral sclerosis (ALS), generalized dementia, vascular dementia, Parkinson's Disease (PD) and MS. They then checked how many had been hospitalized for a viral illness before. To confirm their findings, they looked for the same associations in the UK Biobank, which contains data from almost 500,000 people in the United Kingdom. Results appeared in *Neuron*.



Inluenza B virus particles isolated from a patient sample

JOHN GALLAGHER AND AUDRAY HARRIS, NIAID LABORATORY OF INFECTIOUS DISEASES

The researchers found 45 associations between viruses and neurodegenerative diseases in FinnGen. Of these, 22 also appeared in the UK Biobank. The strongest association was between viral encephalitis—brain inflammation caused by a virus—and AD. A person with viral encephalitis in the FinnGen database was 30 times as likely to be diagnosed with AD as someone without encephalitis. Results were similar in the UK Biobank; people with viral encephalitis were 22 times as likely to develop AD as those without.

The team also found, in FinnGen, the association between Epstein-Barr virus and MS that was described earlier. The association wasn't seen in the UK Biobank, but this may reflect how the different biobanks use hospital diagnostic codes; Epstein-Barr viruses are common and often not noted.

Influenza with pneumonia was associated with all the neurodegenerative diseases except MS. The researchers only included cases of influenza severe enough to need hospitalization in the study. Thus, these associations only apply to the most severe cases of influenza.

FinnGen contains data on the same people over time. The team used this to examine how the associations depended on the time since infection. They found that some viral infections were associated with increased risk of neurodegenerative disease as much as 15 years later.

"The results of this study provide researchers with several new critical pieces of the neurodegenerative disorder puzzle," Nalls says. "In the future, we plan to use the latest data science tools to not only find more pieces but also help researchers understand how those pieces, including genes and other risk factors, fit together."—adapted from *NIH Research Matters*

Researchers Identify Compounds that Could Lead to Short-Term Contraceptive for Men

In a mouse study, NIH-funded researchers have identified a potential non-hormonal contraceptive that men could take shortly before sexual activity and have fertility restored the next day. Researchers gave male mice a compound that temporarily disables soluble adenylyl cyclase, the enzyme essential for activating a sperm cell's ability to swim and mature so it can travel through the female reproductive tract and fertilize an egg.

In several tests, the researchers showed that the compound TDI-11861 rendered mouse sperm cells immobile and prevented them from maturing. The compound did not interfere with the animals' sexual functioning. Although male mice mated with females, no pregnancies were observed. Sperm recovered from female mice remained incapacitated.

The authors did not observe any side effects in the male or female mice. The compound wore off three hours later; males recovered their fertility.

The study, funded by NICHD, NIA and NCI, was conducted by researchers at Weill Cornell Medical College. Findings appear in *Nature Communications*.

The researchers say their work provides proof of concept that soluble adenylyl cyclase inhibitors have the potential to provide a safe, on-demand, non-hormonal and reversible oral contraceptive for men.

New AAAS fellows include (from l) Dr. Karen Faith Berman, Dr. Linda Birnbaum, Dr. Cynthia Dunbar, Dr. Eric Engels and Dr. Elodie Ghedin.

10 NIHer's Among Newly Elected AAAS Fellows

The American Association for the Advancement of Science (AAAS) elected 505 scientists, engineers and innovators from around the world and across all disciplines to its 2022 class of fellows. Ten NIHer's are among the electees.

AAAS is the world's largest general scientific society and publisher of the *Science* family of journals. Newly elected fellows are recognized for scientific and socially notable achievements spanning their careers. Election is one of the most distinguished honors in the scientific community.

Section on Biological Sciences

- Dr. Linda S. Birnbaum, former NIEHS director
- Dr. Carmen Williams, principal investigator and deputy chief of the Reproductive and Developmental Biology Laboratory, NIEHS
- Dr. Howard Young, principal investigator and head of NCI's cellular and molecular immunology section

Section on Medical Sciences

- Dr. Cynthia Dunbar, senior investigator, chief of the Translational Stem Cell Biology Branch and head of the molecular hematopoiesis section, NHLBI
- Dr. Eric Engels, senior investigator and director of the Infections and Immunoepidemiology Branch, NCI
- Dr. Elodie Ghedin, chief of the systems genomics section in the Laboratory of Parasitic Diseases, NIAID
- Dr. Paul Liu, deputy scientific director at NHGRI and senior investigator in the Translational and Functional Genomics Branch, NHGRI
- Dr. Lee Scott Weinstein, chief of the Metabolic Diseases Branch, NIDDK

Section on Neuroscience

- Dr. Karen Faith Berman, senior investigator and chief of the Clinical and Translational Neuroscience Branch, the Section on Integrative Neuroimaging, and the Psychosis and Cognitive Studies Section, NIMH
- Dr. Christopher McBain, NICHD scientific director and chief of the institute's Laboratory of Cellular and Synaptic Neurophysiology

AAAS fellows are a distinguished cadre who have been recognized for their achievements across disciplines, from research, teaching and technology, to administration in academia, industry and government, to excellence in communicating and interpreting science to the public.

In a tradition stretching back to 1874, individuals are elected annually by the AAAS council. New fellows are recognized at a ceremonial forum during the AAAS annual meeting, where they are presented with a certificate and blue and gold rosette.

NIH'ers elected as AAAS fellows are (from l) Dr. Paul Liu, Dr. Christopher McBain, Dr. Lee Scott Weinstein, Dr. Carmen Williams and Dr. Howard Young.

Heart Goals. NHLBI's Dr. Richard Childs (r) and staff from the institute's Office of the Clinical Director showcase their heart-healthy goals. Each 'heart' has a pre-written goal: "To care for my heart, I..."

Above, Neyal Ammary-Risch, NHLBI program manager for The Heart Truth campaign, and NHLBI Director Dr. Gary Gibbons in front of treadmills to highlight Heart Month and the importance of exercise for improving heart health. Below, on National Wear Red Day (Feb. 3), Gibbons (r) and Dr. David Goff, director of NHLBI's Division of Cardiovascular Sciences (l), join NIH Fitness Instructor Linda Bessacque for a virtual aerobic exercise event called Get #OurHearts Pumping!

Celebrities 'Go Red for Women' at NHLBI-Founded Event in NYC

On Feb. 1, the first day of American Heart Month, stars took to a New York City runway for the American Heart Association's annual "Go Red for Women" Red Dress Collection concert held at Jazz at the Lincoln Center.

The Go Red event, which highlights music and fashion, aims to raise awareness about cardiovascular disease, the No. 1 cause of death in women.

Founded in 2004 by the National Heart, Lung, and Blood Institute's The Heart Truth campaign in partnership with AHA, the event reminds women of the need to protect their heart health and take action in the fight against heart disease and stroke.