

SKEPTICAL, CRITICAL, OBJECTIVE Bassett Considers ‘Beautiful, Rational Process of Science’

BY CARLA GARNETT

In a recent Wednesday Afternoon Lecture, Dr. Dani Bassett delivered a virtual love letter to science.

“I absolutely love science,” Bassett began. “I love science for a whole bunch of reasons. I love the ends of science. I love the process of science and I love the people of science. I love the intoxicating feeling of discovery.”

The J. Peter Skirkanich professor at the University of Pennsylvania, with appointments in the departments of bioengineering, physics & astronomy, electrical & systems engineering, neurology and psychiatry, then



Dr. Dani Bassett

invited fellow scientists to help improve the object of their affection.

Bassett’s lecture, “Thinking Critically About How We Do Science,” called on

those intimate with the field to examine it more objectively, instead of as one might a friend—so familiar with its traditional associations and customary norms that new, diverse points of view and relationships are overlooked or discarded out of hand.

“The field of science-of-science combines information from the process of science, statistics, machine learning and big data to answer such questions as ‘How does science happen?’ ‘How are scientific questions chosen to pursue?’ ‘How do we determine where the scientific frontiers are and then step beyond them?’” Bassett explained.

“One’s floored by Dani’s profound creativity, intellectual flexibility combined with a close attention to detail and really inspirational collegiality,” said Dr. Armin Raznahan, chief of NIMH’s section on developmental neurogenomics, introducing the guest speaker. “Dani’s had an

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What was cooking on Wear Red Day? See p. 12.

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SUPPORTING YOURSELF Kogan Offers Practical Tips for Challenging Times

BY DANA TALESNIK

Nataly Kogan appeared to be on top of the world. A successful businesswoman, she kept



Nataly Kogan

the illusion going for 20 years. But behind her smiling, confident exterior, Kogan was struggling. Overwhelmed and unfulfilled, she ultimately suffered a debilitating burnout.

“It was the darkest, most painful experience in my life as a mom, first and foremost, but also as a colleague and a leader,” said Kogan. “I was

SEE **KOGAN**, PAGE 6



Dr. Robin W. Scheffler

PHOTO: JONATHAN SACHS

National Cancer Act Legacy Still Debated, 50 Years Later

BY ERIC BOCK

When President Richard Nixon signed the National Cancer Act on Dec. 23, 1971, he declared war on cancer. A half-century later, debate over what constitutes victory continues, said Dr. Robin W. Scheffler during a recent NIH Biomedical History Lecture.

SEE **CANCER**, PAGE 4



Campus Express Shuttle Route Begins

As thousands of staff prepare to return to campus in the coming months, commuting concerns loom large, especially with multiple long-term construction projects underway on the northwest side of campus that will affect traffic and parking.

NIH has begun providing an Express Shuttle that services Lots 41 and 42 from the south lobby of Bldg. 10. The new shuttle is part of the NIH "Building for All" campaign, an ORS-ORF joint effort to implement mitigation strategies toward reducing traffic congestion and improving parking options associated with construction that began this year.

The "Lots 41/42 Express Shuttle" will run in the mornings from 6:30 to 9:30 a.m. and in the afternoons from 4:30 p.m. to 7:30 p.m., providing exclusive service between Bldg. 10 and the Lot 42 employee parking lot (directly adjacent to Lot 41) on the south side of campus. Shuttle service is open to all NIH staff. For a complete schedule, see: <https://go.usa.gov/xtFFu>.

Long-term, major construction projects near Bldg. 10 include a 5-story addition to the Vaccine Research Center, a 9-story surgery wing of the hospital and a new CC parking garage. Additional information and updates can be found on the NIH Traffic website: <https://traffic.nih.gov>.

Want to Learn to Sail?

The NIHSA Basic Sailing Course will be offered Tuesdays from 7 to 9 p.m. from Mar. 29 through May 17. Visit <http://www.nih sail.org/training> for details. In-class sessions are virtual via Zoom; onboard (on the water) sessions are held at Selby Bay on the South River near Edgewater, Md.

Participants must be able to provide or arrange for their own transportation to the onboard sessions.

For more course info, email nihsa.basic.training1@gmail.com.

NEI Holds 'Eye on the Future' Contest

Know any teens who are interested in science? The "Eye on the Future" contest allows them to express their love for science in a short video and compete for a chance to win up to \$2,000 plus a visit to NIH.

The National Eye Institute wants to know what makes high schoolers excited about science. To enter, record a video between 30 seconds and 3

HAPPY BIRTHDAY, ZILLY!

Inn Celebrates Valentine's Day with Party for Resident Favorite

The Children's Inn at NIH filled Valentine's Day with fun and love.

The day started with deliveries of candy grams, a cookie decorating kit and handwritten Valentine's Day cards to each resident.

Next up was a celebration of inn therapy dog Zilly's birthday. Residents gathered in the lobby to wish the Australian Labradoodle a happy birthday and enjoy cupcakes with her. Zilly joined the inn staff in 2015.

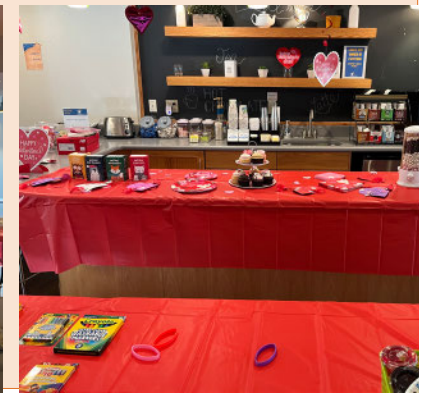
In the afternoon, a special gathering to mark the day was held in the Bistro, which was also the site of the monthly VisArts program activity.

In the red-, pink- and heart-festooned café, residents enjoyed more treats from the candy bar while designing glass hearts and creating other Valentine-themed artwork.

A candlelight dinner ended a day devoted to love (and love of sweets!).



Above, inn therapy dog Zilly and friend celebrate Valentine's Day, which is also the pooch's birthday. Cupcakes were on the menu. Below, the VisArts program provided hands-on crafts for the occasion.



minutes long. Potential topics include: my first or favorite experiment, the impact I'd like to make on the science world in 20 years, a live science demonstration and my favorite scientific discovery or invention that has changed the world. Videos do not have to be vision related.

The top 3 winners will receive cash prizes and the opportunity to visit NIH. Registration is open through Friday, Apr. 8. To enter, visit www.nei.nih.gov/EyeOnTheFuture.

NIHSA Membership Drive Underway

The NIH Sailing Association (NIHSA), a club of the Recreation and Welfare Association, is open to NIH (and NOAA) employees, patients, contractors and

their families. The club's main activity is sailing five Flying Scots, which are owned by the NIHSA and maintained in slips south of Annapolis on the South River. Club meetings are held each month and are open to all club members. Yearly membership dues vary according to participation levels. Members qualify to charter club boats by completing the NIHSA Introduction to Sailing course and/or demonstrating their competence in a comprehensive checkout sail. NIHSA provides many opportunities for club members to get together. Check the website for details at www.nih sail.org/membership. To register in 2022, go <http://www.nih sail.org/registration/>.



Dr. Kim Pelis is the new director of the Office of NIH History and Stetten Museum.

Pelis To Direct NIH History Office, Stetten Museum

Dr. Kim Pelis has been appointed as director of the Office of NIH History and Stetten Museum.

Currently serving as lead speechwriter on the NIH director's presentations team in the Office of Communications and Public Liaison, Pelis brings experience in both academic and public history to her new post. She earned a Ph.D. degree in the history of medicine from Johns Hopkins University School of Medicine, followed by a Wellcome Trust postdoctoral fellowship at the Wellcome Institute and the Science Museum, London.

Pelis served on the faculties of the medical history department at the Uniformed Services University of the Health Sciences and the department of the history and philosophy of science at the University of Notre Dame. Her publications include *Charles Nicolle, Pasteur's Imperial Missionary: Typhus & Tunisia* (2006).

She incorporated history into her work on the presentations team and as executive editor of the NIH Director's Blog (2013-2014). Pelis has won multiple NIH Director's Awards for this work.

New Spring Courses, Workshops Available in March

Foundation for Advanced Education in the Sciences (FAES) will launch new courses for its Spring Session B term, beginning Monday, Mar. 28 with 7-week, condensed curricula in biology, statistics, public health, immunology and bioinformatics.

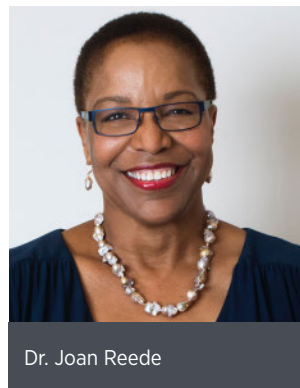
All FAES courses are taught online and delivered asynchronously to ensure maximum flexibility and the ability to learn anytime from anywhere. Learn about these and other FAES credit-bearing academic courses on Wednesday, Mar. 9 during a virtual information session from noon to 1 p.m. ET.

FAES is also accepting registrations for 3- and 5-day online workshops: Genome Editing in CRISPR, Next Generation Sequencing Data Analysis and Super Resolution Microscopy. All FAES academic programs are kept affordable and open to the public. Details available at faes.org/ap.

Latest NIMHD Seminar Archived

The NIMHD Director's Seminar Series on Feb. 16 featured Dr. Joan Reede, dean for diversity and community partnership at Harvard Medical School. She presented "Acknowledging the Past, Disrupting the Present, Creating a Different Future."

Reede has a lifelong passion for mentoring and supporting diversity in the biosciences. She is responsible for development and management of a comprehensive program that provides leadership, guidance and support to promote



Dr. Joan Reede

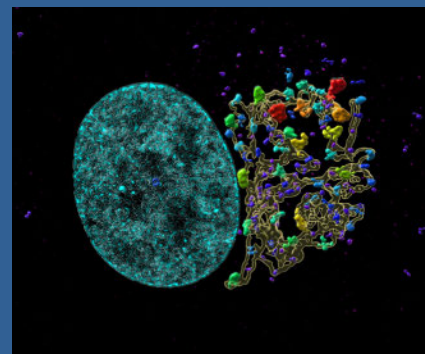
the increased recruitment, retention and advancement of underrepresented minority faculty.

Check out <https://nimhd.nih.gov/news-events/conferences-events/directors-seminar-series/> to learn more about Reede's talk and future NIMHD seminars.

The Reede lecture is available via NIH videocast at <https://videocast.nih.gov/watch=44673>.

Take Your Child to Work Day Returns Virtual in 2022

On Thursday, Apr. 28, NIH will celebrate its 28th Take Your Child to Work Day—once again virtually—for grades 1 through 12. To learn more about the day and registration details, visit <https://takeyourchildtowork.nih.gov>. In addition, NIH will conduct Earth Day activities online on the same day. Check the web page at <https://nems.nih.gov/Pages/earthday.aspx> for details.



ON THE COVER: Drug treatment prevents La Crosse virus (LACV) from exiting the Golgi apparatus of the cell and prevents virus spread to other cells. Shown are the nucleus (cyan), medial Golgi (yellow) and LACV (multi-colored).

IMAGE: DURBADAL OJHA, JACQUELINE M. LEUNG & KARIN E. PETERSON, NIAID ROCKY MOUNTAIN LABORATORIES

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MAKING A COMEBACK

Returning to Physical Workplace: The Record Wants to Know How You Feel

After teleworking for more than 2 years, the majority of NIH's workforce will begin returning in person later this month, in phases. There's excitement and loads of questions and potential anxieties to address about our reunion with colleagues—practical as well as emotional and psychological.

The *NIH Record* is planning a special series about all aspects of the Big Return and we're asking our readers to send a few sentences and/or a selfie of what excites/scares you about coming back to the physical workspace. Email nihreford@nih.gov or if you prefer to remain anonymous, use our feedback form at <https://nihreford.nih.gov/feedback>.

Cancer

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“The declaration ignited a broad-ranging explosion of research dedicated to understanding, curing and preventing cancer,” said Scheffler, assistant professor of science, technology and society at Massachusetts Institute of Technology.

The act was an investment in basic cancer research, not cancer care or prevention. In the 1950s, health activist and philanthropist Mary Lasker helped popularize the idea that basic research could defeat cancer. Around the same time, scientists thought they could cure diseases if they studied their molecular basis.

Lasker was inspired by previous medical breakthroughs in microbiology, such as the development of antibiotics and the polio vaccine. Scheffler said Lasker lobbied Congress to increase support for biomedical research “with the hope it would produce dividends against cancer and other diseases.”

As the budget for NIH and NCI increased in the 1960s, opponents of spending on biomedical research criticized how grants were administered. They wanted to make scientists more accountable to the public. Grants administrators adopted new methods developed by the RAND Corp. and the Department of Defense.

“These management methods were

designed to address the urgency of Cold War research and development in guiding competition with the Soviet Union and manage complex projects in which there were multiple elements,” Scheffler explained.

In the decades leading up to the NCA’s passage, some scientists thought cancer had a viral cause. Even though a cancer-causing virus had yet to be identified, NCI leadership began funding cancer vaccine research.

★ ★ ★

“A lot of the work that needs to be done isn’t high-tech scientific work, but large-scale collection and screening.”

—DR. ROBIN SCHEFFLER

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“The argument is that until you invest in infrastructure, you’re not going to find human cancer viruses,” Scheffler said. “A lot of the work that needs to be done isn’t high-tech scientific work, but large-scale collection and screening.”

After Nixon declared the war on cancer, the investment in cancer research exploded. Not all scientists were happy with the government’s management. Many saw themselves as “creative, curiosity-driven experimenters” who thought NCI’s funding approach threatened the scientific community they wanted.

by the fact that the rate of cancer incidence continued to climb.”

A former FDA director called the war on cancer a “medical Vietnam,” a reference to the unpopular war. He said environmental, women’s health and civil rights groups critiqued NCI’s approach. They wanted to redirect funds toward public health and prevention-oriented pathways. The budget for NCI fell in the 1980s.

While the war on cancer failed to develop vaccines against the disease, it led to the discovery of the molecular mechanism for the genetic basis of cancer.

In 1976, Drs. J. Michael Bishop and Harold Varmus found that normal genes can mutate into genes that have the potential to cause cancer. The discovery demonstrated the importance of focusing on the cellular origins of cancer and led to the pair winning the Nobel Prize in Physiology or Medicine in 1989.

Molecular biologists and researchers who previously criticized the institute began to defend NCI’s role in research. Making progress against cancer would take a lot longer than a few years.

Over the last 50 years, molecular medicine produced many stunning breakthroughs.

“Thinking about what it means to mark success and failure gets into a number of very interesting questions about what it means to do molecular medicine and the place that molecular medicine has in combating diseases, such as cancer, overall,” Scheffler said. **R**



Scheffler participates in a virtual Q&A with NLM history of medicine chief Dr. Jeffrey Reznick.

Climate Change Spurs Big New Plan for Health Research

BY JENNIFER HARKER

Building on its decades of work to advance scientific knowledge about how climate change affects human health, NIEHS is leading a new federal collaboration to significantly scale up research and action in this critical area.

Seven institutes and centers recently joined forces to establish the NIH Climate Change and Health (CCH) Initiative, which was discussed during a recent NIEHS webinar.

“Although NIEHS has been one of the lead ICs on climate change and health, it is clear that climate change greatly elevates threats to human health across a wide range of illnesses and injuries that are being studied throughout NIH,” said Dr. Rick Woychik, director of NIEHS and the National Toxicology Program. “This is bigger than what NIEHS or any single IC can do.”

Presidential Order Shapes Initiative

President Joe Biden created the Office of Climate Change and Health Equity in 2021 and issued Executive Order 14008 for a government-wide approach to the climate crisis based on an environmental justice framework.

“Since the inauguration, there has been an increasing focus on climate change across the federal government,” said Woychik.

Biden requested \$100 million for the new initiative, which awaits congressional approval.

The research plan is based on the following objectives.

- Identify risks and optimize benefits to the health of individuals, communities and populations from actions to mitigate or adapt to climate change.
- Develop the necessary research infrastructure and workforce to enable

generation of relevant knowledge, drawing from the full spectrum of biomedical disciplines.

- Leverage partnerships with other scientific and social disciplines and organizations to achieve the most impactful results.
- Innovate across the research translation continuum to ensure findings are credible, accessible and actionable.

Input from Across NIH

Woychik and IC directors from NICHD, NHLBI, NIMH, NIMHD, NINR and the Fogarty International Center serve on the initiative’s executive committee.

“Most notably, the executive committee has re-energized a longstanding working group with more than 120 members from 18 ICs and 4 offices across NIH,” said Woychik.

Exposures, Socioeconomic Issues and Mental Health

Dr. Claudia Thompson, chief of the NIEHS Population Health Branch, provided an overview of the new initiative at a special session of NIEHS’s advisory council late last year.

“Climate change is putting our planet and all its inhabitants at risk,” she said, noting that those most vulnerable are from under-resourced and marginalized populations. “The complexity of climate change impacts on health is enormous, and it is mediated by interrelated environmental exposures and social and behavioral factors.”

NIMH director Dr. Josh Gordon agreed, adding that climate change also affects mental health.

“We know about the mental health impacts of migrations, disasters and economic stresses,” he said, “but it is important that we do the research necessary to understand which communities are going to be most affected and develop interventions that can help mitigate these effects.”

Partnerships, Communication

Partnerships with institutions that serve minorities and are located in areas of particularly high climate risk should be prioritized in the initiative’s request for research proposals, suggested council member Dr. Lynn Goldman of George Washington University.

Communication also will be key, according to councilor Dr. Carmen Zorrilla of the University of Puerto Rico School of Medicine.



Dr. Rick Woychik

PHOTO: STEVE MCCAUN/NIHS

“We are living in a world that has a lot of communication and miscommunication,” Zorrilla said. “Messages regarding climate change have been positive and negative, true and false. This initiative needs to pay attention


to those messages to make sure that we have strategies to deal with misinformation.”

Initiative Moves Forward

“Implementation of the Climate Change and Health Initiative will require experts from a wide breadth of fields,” Thompson said. “The use of current infrastructure will enable us to create a sustainable research portfolio. This is just the beginning of a long-sustained climate change and health program for the NIH.”

The first step is to implement a research agenda by expanding funding across the NIH ecosystem and broadly advertising the initiative’s notices of special interest, called NOSIs.

“I think there’s probably no other issue that could be as global as climate change,” concluded FIC director Dr. Roger Glass. “It affects absolutely everyone, everywhere.”

Email questions or comments about the NIH-wide CCH Initiative to national.advisory.council@niehs.nih.gov. To learn about the initiative, see <https://www.nih.gov/sites/default/files/research-training/initiatives/climate-change/nih-climate-change-framework.pdf>. 

Kogan

CONTINUED FROM PAGE 1

running a company that I built and I couldn't function at work and I came close to losing everything that was meaningful to me."

Over time, Kogan learned a hard lesson: "Trying to force yourself to feel good when you don't or, worse, pretending to feel good... is draining," she said at the first Deputy Director for Management (DDM) seminar of the 2022 series.

Something had to change, she realized, beginning with her mindset. "If I wanted to continue to do work that was meaningful," she said, "I had to create a more supportive relationship with myself."

Kogan then began a journey to train her brain to rest, reset and refuel. Now, the founder of Happier, a tech learning platform designed to improve well-being, Kogan helps others embark on a path of emotional fitness.

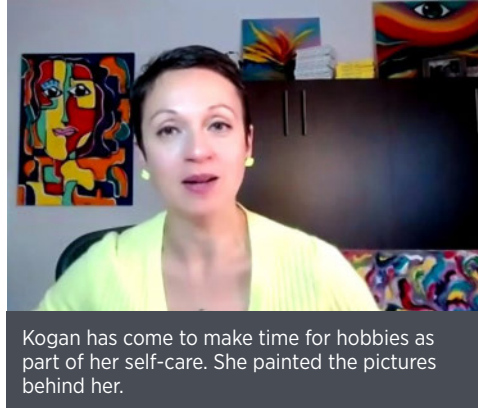
It takes practice and an open mind. "Emotional fitness is a skill of creating this supportive relationship with yourself, your thoughts, your emotions and other people so that when you have to go through change, challenge and uncertainty, you know how to support yourself through it," said Kogan. By expending less energy on stressing and ruminating, "research shows we perform better across every category that is meaningful. We're more productive, creative, collaborative."

Editing Your Thoughts

We're all biologically programmed to worry. The human brain is wired for survival—always scanning the environment, looking for danger, plotting what could go wrong.

Be aware of this, said Kogan, and practice deflecting these habitual negative thoughts. Question them. Is this thought true? Is it helpful toward moving forward?

"Be the editor of your thoughts," Kogan urged. Push away the worst-case scenarios and pessimistic narratives, she advised, and try to shift to more productive thinking.



Rethinking Self-Care

For a long time, Kogan dismissed the idea of self-care, and when she discussed it with others, she heard similar objections: It's an indulgence. Who has time?

"But when I completely neglected my self-care," said Kogan, "what I brought to people in my life was a heavy kind of energy."

She was impatient, irritable, overwhelmed.

Then she discovered the crux of it all: "You cannot give what you do not have," she said.

Think of an energy reservoir. Everyone begins each day with a limited supply of energy and each thought or task draws on the

"You cannot give what you do not have."

NATALY KOGAN

supply throughout the day. Self-care helps replenish it.

Take a break. Go for a walk. Have a cup of tea. Spend time on a hobby. Disconnect.

Kogan has come to view self-care as neither luxury nor reward but as a mental health necessity, and she makes time for it consistently.

"Recognize that self-care is not selfish," she said. "Self-care is the greatest act of love and service you can give to the people you interact with."

Reset and Refuel

While self-care fuels energy, one cannot fill a leaky bucket. To keep that reservoir stocked, do fewer things that unnecessarily drain your energy, said Kogan, who cited some familiar examples.

Mindlessly scrolling social media. Worrying. Making decisions—something we do all day but which need not be such a weighty chore. "Be aware of the energy you're investing in making decisions," said Kogan, "and, when possible...delegate."

Another common energy drain is multi-tasking, which really is a misnomer. People cannot do two things at once that require their attention, Kogan pointed out.

"What we call multi-tasking is actually switch-tasking," she said. "So for all of you trying to do your email while listening to me, you're not listening to me. You're switching rapidly." And that is both draining and less efficient.

Also, Kogan underscored, don't be so hard

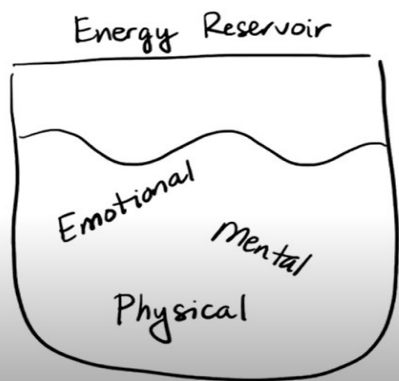


on yourself. Self-criticism is exhausting. “Talk to yourself as you would a friend,” she said. “Supporting yourself through challenging times fuels your energy and improves your motivation and focus.”

Rest and Reflect

Another way to refuel is simply to rest. Ever have a brilliant idea pop into your head in the shower? There’s science behind it. In that moment, your brain’s frontal cortex relaxed, allowing the areas in your brain responsible for creativity to engage.

“Only when we disconnect from the thinking and doing does our default modal network come fully online,” said Kogan. “When you take a break, you’re not doing nothing. Your brain is organizing, processing, making connections.”




“Self-care is a skill of fueling your mental, emotional and physical energy,” said Kogan.

So take a few moments to check in with yourself every day.

“One of the best investments I made in my emotional fitness when I was starting to recover,” she said, “was starting with 5 minutes of time every day just to be and reflect.”

Looking back, Kogan said she spent years on autopilot, powering through while ignoring the warning signs—the daily burnouts that left her constantly drained, the concerns of people close to her—and eventually hit the breaking point.

“If someone asks if you’re doing okay, pause. Be aware,” Kogan advised. Edit your thoughts. Take time for self-care. Regularly refuel. “Practice these skills before you get to [the breaking] point.” 

OMS Resumes Normal Covid Reporting Procedures

NIH still seeks to understand how the virus affects our workforce. The Occupational Medical Service is resuming normal reporting procedures for positive Covid-19 test results; this includes results obtained through community or at-home testing, and for teleworkers and remote workers.

All staff, regardless of their return to physical workplace category, are encouraged to report a new diagnosis of Covid-19 infection, including diagnoses received in the community or from rapid testing (antigen-based, including at-home tests). Report the test result using the Coronavirus Surveillance Questionnaire: <https://ors.od.nih.gov/Pages/oms-covid-screening.aspx>.




All staff are encouraged to report a new Covid-19 diagnosis to OMS.

PHOTO: SHUTTERSTOCK/JARUN ONTAKRAI

Do not send test results obtained prior to Feb. 2, 2022, unless you are currently symptomatic. Only recent positive test results or cases that require return to work guidance are requested.

OMS has instituted a streamlined process for providing advice to staff diagnosed with Covid or reporting symptoms or exposures. In most cases, staff are only emailed instructions for self-care, quarantine, isolation and return-to-work guidance. If staff pose a risk of workplace transmission, OMS will follow up by phone with additional advice.

For more guidance on what to do if you test positive, if you have been exposed or are experiencing symptoms, visit: <https://employees.nih.gov/pages/coronavirus/your-health.aspx>.

If you have any questions, contact the Covid-19 Call Center at (301) 480-8990 or email OMS at OMSMonitoringProgram@mail.nih.gov. 

COVID-19 AT-HOME TEST FACTS

FACT:

If you’ve had a known exposure to COVID-19, **take an at-home test 2 to 3 days after your exposure.** Research shows that this timing has better sensitivity to detect infection.



NIH Launches #NIHCOVIDFacts Social Media Campaign

NIH is launching a Covid-19 facts campaign on social media to dispel common Covid-19 myths and highlight NIH’s role in the Covid-19 pandemic.

Posts such as the one pictured above will appear across multiple platforms, including Twitter, Facebook, Instagram

and LinkedIn. The first series will focus on at-home testing with additional content and topics to follow.

Each post will link to related CDC guidance. Follow the campaign, and share, at #NIHCOVIDFacts.

Science

CONTINUED FROM PAGE 1

immeasurable impact on the way I do science and the way I think about being a scientist.”

Take, for example, the significance of citing other scientists’ work. Using a term coined by British Australian scholar Dr. Sara Ahmed, Bassett described journal citations as the “academic bricks” that virtually function as the “building blocks of careers” and often can also determine the direction, scope and nature of whole fields of inquiry.

Bassett shared research conducted by their group as well as other colleagues and labs. They studied hundreds of thousands of journal articles in the top journals in several



fields—neuroscience, astronomy, cognitive neuroscience, medicine, physics—and found distinctive evidence of under-citation of work by women and people of color. Papers authored by white men were overcited, according to data Bassett’s team and several other teams collected from previous studies.

“Think about how we can respond as scientists, taking that wonderful scientific brain that I love in all of us and turning it toward these data,” Bassett urged.

“Let’s be skeptical, critical and objective about us...Let’s look at the fact that this is coming up in many, many different fields and it’s happening both in gender and in race and ethnicity, and let’s think hard about what that might mean.”

Citations in scientific literature aside, Bassett also raised the vast literature in gender and racial/ethnic disparities in compensation, grant funding, credit for collaborative work, teaching evaluations, hiring and promotion, productivity and authorship.

“We should look at these data and



Bassett offered suggestions for reducing inequality in scientific journal citation.

recognize that we are not some special breed of human immune to racism, sexism, classism, etc.”

One of the drivers of the imbalance, Bassett said, is simply tradition, or a “citation practice that has remained the same since 1995.” While the scientific workforce has slowly grown more diverse and inclusive in the last few decades, many scientific practices have not evolved alongside the demographics of scientific communities.

Scientists still draw frequently from mainly familiar pools of colleagues and associates when citing work.

“This is called homophily,” Bassett explained. “We end up citing people who are a lot like us. We cite people of our own gender and we cite people of our own ethnicity and race. Homophily is very prevalent in the fields I canvassed [in this lecture]...This presents a challenge to us to think differently about how we cite outside our coauthorship networks, but also to think of expanding our coauthorship networks, to be more diverse and more inclusive.”

So how can scientists help mitigate some of the drivers of inequality? Bassett offered several suggestions.

- Check and fix individual reference lists. Use readily available software and other IT tools to give papers a once-over before submitting for publication.
- Add a “citation diversity statement” to articles, reporting efforts to address citation inequality in the work, thereby raising awareness in future readers.
- Bring more inequity to light and develop additional tools to mitigate it. Only by engaging in a self-critique can the scientific enterprise also self-correct.

“If our waves of inquiry are guided

into narrow branches defined by a famous thinker, a privileged gender, an advantaged race, a single ethnicity or given prestige, then what tremendous swaths of discovery are we leaving unconsidered, unexamined and unknown?” Bassett concluded. “We have an opportunity to use the beautiful rational process of science to learn more about how we structure our inquiry.”

Watch the full lecture at <https://videocast.nih.gov/watch=44188>.

NIH Updates Policy Manual on Harassment, Discrimination

NIH updated its Policy Manual Chapter on Preventing and Addressing Harassment and Inappropriate Conduct in November 2021, as part of continuing efforts to create a work environment where staff feel welcome, respected and valued.

The revised policy defines what groups are protected from harassment-based employment discrimination. Protected classes include race, color, religion, sex (including pregnancy, gender identity, transgender status and sexual orientation), national origin, age (40 years or older), disability and genetic information.

The update also explains the steps contractors must take if they want to report harassment or inappropriate conduct. Finally, the revised policy explains the differences between two processes—the Civil process and Equal Employment Opportunity (EEO) complaints through the Office of Equity, Diversity and Inclusion.

Civil receives allegations of inappropriate conduct, including all forms of harassment, and oversees the appropriate administrative review or inquiry in an objective and consistent manner across NIH. Civil’s goal is to stop any inappropriate or harassing behaviors immediately and to ensure that appropriate corrective action is taken in a timely manner.

This is separate and distinct from the EEO complaint process. An EEO complaint may be filed by a current or former employee or an applicant for employment who alleges discrimination based on [being a member of] a legally protected class. EDI’s complaint processing provides for informal counseling, investigation, adjudication and potential resolution of EEO complaints.

The complete list of revisions can be found at <https://hr.nih.gov/working-nih/civil/nih-manual-chapter-1311-summary-2021-updates>. The policy manual chapter can be found at <https://policymanual.nih.gov/1311>.

Researchers Document Third Case of HIV Remission Involving Stem Cell Transplant

A woman with HIV who received a cord blood stem cell transplant to treat acute myeloid leukemia has had no detectable levels of HIV for 14 months despite cessation of antiretroviral therapy (ART). The woman is the third known case of HIV remission following a stem cell transplant.

The NIH-funded research was conducted by the International Maternal Pediatric Adolescent AIDS Clinical Trial Network (IMPAACT) P1107 study. Begun in 2015, the observational study was designed to describe the outcomes of up to 25 participants living with HIV who underwent a transplant with CCR5 Δ 32/ Δ 32 cord blood stem cells for treatment of cancer or other underlying disease.

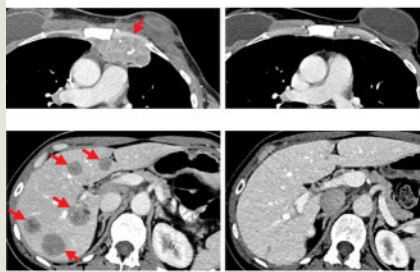
As a result of the genetic mutation CCR5 Δ 32/ Δ 32, missing cells lack CCR5 co-receptors, which is what HIV uses to infect cells. By killing off the cancerous immune cells via chemotherapy and then transplanting stem cells with the CCR5 genetic mutation, scientists theorize that people with HIV then develop an HIV-resistant immune system.

In this latest case, the woman of mixed-race ancestry had been on ART for HIV infection for 4 years at the time of her cancer diagnosis. She achieved leukemia remission after chemotherapy. Prior to the transplant, the participant's HIV was well-controlled but detectable. At 37 months post-transplant, the patient ceased ART and, 14 months later, no HIV has been detected in the participant.

HIV remission resulting from a stem cell transplant had been previously observed in two cases. The first, the "Berlin patient" (a Caucasian male), experienced HIV remission for 12 years and was deemed cured of HIV; he died of leukemia in September 2020. The "London patient" (a Latino male) has been in HIV remission for more than 30 months. This third case suggests that CCR5 Δ 32 cord stem cell transplantation should be considered for people living with HIV who require such a transplant for other diseases.

Advances in Personalized Immunotherapy Hold Promise for Multiple Cancers

NIH researchers have found unique expression profiles in 50 genes that help identify rare anti-tumor lymphocytes that can infiltrate and help defeat metastatic solid epithelial tumors. To develop these profiles, a highly sensitive assay was designed that identified tumor-infiltrating lymphocytes



A woman with breast cancer had metastatic lesions in her chest wall (top, l) and liver (bottom, l). After TIL therapy, her tumors shrank completely. Recent scans (right) show she remains cancer free more than 5 years later.

NATIONAL CANCER INSTITUTE

these lymphocytes could help advance the development and effectiveness of personalized cancer immunotherapies for patients whose cancers do not respond to standard treatments.

(TIL) with cell surface receptors that can recognize the products of the very mutations that caused the cancer.

The research, led by Dr. Steven Rosenberg, chief of the Surgery Branch at NCI's Center for Cancer Research, appeared in *Science*.

This finding in TILs is especially important because it is agnostic to the type of tumor a patient has; it seems to have promise in stomach, esophageal, ovarian and breast cancers, among other types of tumors. The identification of

Until now, to maximize the potential of TIL therapy, Rosenberg's team had to look at every potential mutation in a tumor that could be a target. But after years of effort, the team developed this new assay that identifies the gene expression profiles of a few rare lymphocytes that recognize mutated cell surface proteins of cancerous cells, thereby negating the need for a mutation-by-mutation search.

Rosenberg pioneered the development of cell-based immunotherapy, a highly personalized form of cancer treatment that uses a person's own immune system to fight tumor cells. His studies of the adoptive transfer of genetically modified immune cells have resulted in tumor shrinkage in patients with metastatic cancer.

Researchers Identify Brain Regions Involved in Conversation

Having a conversation takes high-level coordination: listening, processing, formulating responses, often rapidly amid a back-and-forth dialogue. It's all happening so fast that people are often planning their responses while listening.

A recent NIDCD study mapped the brain during speech planning. The findings may lead to a better understanding of speech disorders such as stuttering. Results appeared in *Nature*.

Earlier studies identified several brain regions likely involved in the speech planning process, but the exact neural circuits responsible for planning replies weren't well understood.

A research team, led by Dr. Michael Long of the NYU Grossman School of Medicine, measured brain activity in eight volunteers undergoing brain surgery to remove tumors or treat epilepsy. Brain surgery patients are initially kept conscious to avoid damaging speech centers in the brain.

To precisely monitor brain activity, the team used electrocorticography (ECoG), a technology in which electrodes are placed directly on the brain's surface. Hundreds of electrodes were placed on each patient's left-brain hemisphere, which is involved in speech and language.

While using ECoG, the researchers posed a series of structured questions to the volunteers, changing the word order of the same question to help researchers determine when speech planning began. Researchers found that brain activity during speech planning was distinct from perception and speech production. The patterns suggested the brain networks for each function are largely separate.

The team then mapped the location of the circuits involved. Most of the electrodes that responded during planning were in two regions: the caudal inferior frontal gyrus (cIFG) and the caudal middle frontal gyrus (cMFG). The cIFG, or "Broca's region," has long been known as an important language processing center. But the involvement of cMFG in speech planning was unexpected.

Further tests showed that the planning networks identified during the task were also active during natural conversations. These results shed light on the brain circuitry that enables quick verbal exchanges.

"Our study pinpoints brain networks behind the planning that makes this back and forth possible which have been elusive until now," said Long.— adapted from *NIH Research Matters*



Scientists are learning more about the neural circuits involved in conversation.

WAVEBREAKMEDIA / SHUTTERSTOCK

NIH Police Chief Retires from 2nd Career

BY AMBER SNYDER

After 60 years total of government service—22 of those at NIH—NIH Police Chief Alvin Hinton has retired. He previously served in the United States Park Police (USPP) for 31 years and 7 months. He started his law enforcement career in the Washington, D.C., metropolitan area. He rose through the ranks to become a deputy chief of police for the Field Offices Division (commanded all outside of the environs of the Washington metropolitan area), and later the Operations Division (commanded all areas within metropolitan D.C.).

During his tenure with USPP, Hinton also commanded the New York Field Office, Training Branch and Major Crimes Unit. He served as a law enforcement specialist and special investigator for the National Park Service regional director of the National Capital Region.

Additionally, Hinton managed myriad high profile events, including leading law enforcement efforts for the Cuban Refugee Relocation Program at Fort Chaffee, Ark.; the Million Man March in Washington; the Y2K celebration on the National Mall; the 50th anniversary of the North American Treaty Organization; and national Independence Day celebrations on the National Mall.

He provided support, protection and collaboration with partner law enforcement organizations to protect the President of the United States, heads of state and other dignitaries.

However, when the time came for him to retire from the Park Police, Hinton knew he had more to offer. In January 2000, he started his second law enforcement career at NIH on the first workday following his USPP retirement.

The NIH that Hinton came to is different from the NIH today in one significant way: security. In 2000, the campus was “wide-open,” he recalled. There was no perimeter fence, and the



NIH Police Chief Alvin Hinton has retired.

PHOTO: CHIA-CHI CHARLIE CHANG

public could come and go freely. Hinton admitted that he felt “uneasy” about the lack of security presence then, but the impetus for change did not come until after 9/11.

Hinton directed creation and establishment of NIH Police field units at the Rocky Mountain Laboratories, the National Cancer Institute campus at Fort Detrick, and the Bay View campus in Baltimore, and helped develop the NIH Perimeter Security System (PSS) on the main campus, which includes

the perimeter fencing, employee entrances and entrances for patients, visitors and commercial vehicles, and organized a viable guard force to staff the PSS and operate the NIH Visitor Management System.

One benefit that came from ramping up security was the opportunity to forge strong relationships with the FBI, CIA and local police departments, Hinton added. “You can’t do it all yourself.”

These collaborations were important post-9/11 for protecting NIH leadership such as then-director Dr. Elias Zerhouni and are now necessary again in the pandemic era for high-profile NIH’ers like NIAID director Dr. Anthony Fauci.

In addition to his role in reinforcing security, Hinton also strove to create a “bank account of good will” between the police force and the rest of the NIH community. The force is unique because it mostly polices and provides protection to thousands of coworkers, Hinton said.

“The Division of Police walk a fine line between treating coworkers fairly and policing with integrity,” he explained. However, he is proud of their relationship with the NIH community. He wishes for everyone to remember that “the police are coworkers, even if they’re not scientists.”

Hinton also served in the Air Force, the U.S. Postal Service and the Department of Labor. He earned associate’s and bachelor of science degrees in the administration

of justice from the American University and a master of science in management degree from Johns Hopkins University. He is also a graduate of the Federal Bureau of Investigation National Academy.

Over the course of his career, Hinton received multiple awards, including two Department of Health and Human Services Secretary’s Awards for Distinguished Service, an NIH Certificate of Recognition, an NIH Director’s Award and an NIH Office of Research Services Management Council Certificate of Appreciation.

“NIH is a great place, both philosophically and in reality,”



Shown here with preschoolers (and their chaperones) visiting NIH during a 2017 national Police Awareness Day event, Hinton strove to create a “bank account of good will” between the police force and the rest of the NIH community.

PHOTO: CHIA-CHI CHARLIE CHANG

he said. Both Hinton and his grandmother received treatment at the Clinical Center he described as “incredible...care you wouldn’t believe.”

He expressed gratitude for his 22 years at NIH: “Things happened for me that I never would have thought possible.” He concluded, “You can do anything if you apply yourself.”

Chief Hinton remains a life member of the International Association of Chiefs of Police.

Deputy Chief of the NIH Police, Leslie Campbell, will serve as acting chief until a new selection is made.

Senior Nutrition Scientist Ershow Retires After 39 Years at NIH

BY ANN JAMISON

Dr. Abby Ershow, senior nutrition scientist in the Office of Dietary Supplements (ODS), retired in December after 39 years at NIH. She led the ODS iodine initiative from 2014 to 2021 to strengthen research on and develop data resources for studies of iodine nutrition.

Ershow was particularly involved with interagency collaborations with the Department of Agriculture and the Food and Drug Administration to develop databases of the iodine content of foods and dietary supplements. She also participated in an analysis of National Health and Nutrition Examination Survey program data to determine the proportion of U.S. pregnant women advised by their physicians to take supplements containing iodine, which underscored concerns about whether iodine intake is adequate in this population.

ODS acting director Dr. Joseph Betz said, “Dr. Ershow is a peerless nutritionist and an expert health science administrator. She has been a mentor to me in both areas during my time as acting ODS director. Abby has been a great colleague and a better friend to ODS.”

Before joining ODS, Ershow managed an extramural portfolio in lipid metabolism, atherogenesis and cardiovascular nutrition at the National Heart, Lung, and Blood Institute from 1989 to 2014, where she helped investigators understand the NIH grants system.

At NHLBI, Ershow set up the Dietary Effects on Lipoproteins and Thrombogenic Activity (DELTA) multicenter diet intervention trial and developed the plan for the National Food and Nutrient Analysis Program, an interagency food composition project involving USDA, NHLBI and other NIH institutes along with many other federal partners.

Prior to working at NHLBI, Ershow was a staff fellow in the Epidemiology and Biostatistics Program of the National Cancer Institute from 1982 to 1989, where she worked on projects in China and Japan.

She is the author or coauthor of 9 book chapters and more than 75 peer-reviewed articles and monographs. She also was a coordinating editor for *Well-Controlled Diet Studies in Humans: A Practical Guide to Design and Management*, the only full-length text on conducting controlled diet studies in humans.

Ershow received certificates in strategic planning (2011) and performance measure development (2013) from the Balanced Scorecard Institute in Cary, N.C. In 2007 she was elected a fellow of the American Heart Association and also completed a detail assignment as a visiting analyst at the Government Accountability Office. In 2006 she earned a certificate in public leadership from the Brookings Institution in Washington, DC.

Ershow earned a Sc.D. degree in nutrition, physiology and biostatistics from Harvard School of Public Health in 1979. She received a B.A. degree in biological sciences (physiology) from Cornell University in 1973. She also is a registered dietitian.

Ershow will continue to contribute to ODS projects as a consultant. She will also serve as a volunteer Maryland master naturalist docent at several local nature centers and wildlife refuges, compete for blue ribbons in county and state fair jam and jelly contests, sing with a local choral group and travel with her husband. **R**



Dr. Abby Ershow

Study on Dopamine, Body Weight Recruits

NIDDK researchers are looking for healthy volunteers (ages 18 to 45) with BMI (body mass index) greater than or equal to 18.5 to participate in a study investigating how dopamine affects body weight and eating behavior. Participants must be able to visit the Clinical Center for up to 5 consecutive days to pick up food (or up to 5-day admission for meals) and then stay up to 6 days for inpatient testing. For more information, contact the Clinical Center Office of Patient Recruitment at (866) 444-2214 (TTY users dial 711) or ccopr@nih.gov. Visit online: <https://go.usa.gov/xPTBn>. Refer to study 18-DK-0132.

Experiencing Kneecap Pain?

Clinical Center researchers seek 18- to 55-year-olds with kneecap pain (patellofemoral or anterior knee pain) for a two-visit outpatient research study. Investigators are studying how muscle weakness around the knee may lead to changes in kneecap motion and pain. Compensation provided. Learn how to participate by contacting the Office of Patient Recruitment at (866) 444-2214 (TTY users dial 711) or ccopr@nih.gov. Refer to study 13-CC-0099. Online: <https://go.usa.gov/xP5mr>.

Tick Bite Study Recruits

NIAID is looking for healthy volunteers 18 years and older to learn more about how the human immune system responds to tick bites. Participants must be fully vaccinated against Covid-19 and have no known history of Lyme disease, other tick-borne diseases or a known tick bite. To learn more, contact the NIH Clinical Center Office of Patient Recruitment at 866-444-2214 (TTY users dial 711) or ccopr@nih.gov. Refer to study #000331-I Online: <https://go.usa.gov/xtunU>.

Volunteers Needed for Taste/Smell Study

Investigators at NIH are seeking volunteers between ages 18 and 65 to participate in a study to better understand taste and smell alterations and how they differ in obese versus non-obese individuals. All study-related tests provided at no cost and compensation is provided. Contact the Clinical Center Office of Patient Recruitment at (866) 444-2214 (TTY users dial 711) or ccopr@nih.gov. Refer to study 000261-AA. <https://go.usa.gov/xeuse>.



NIH fitness instructor Shannon Oussoren (l) led a series of virtual yoga stretches and breathing exercises. Dr. David Goff, director of NHLBI's Division of Cardiovascular Sciences, participated in the demo.



In a healthy cooking demo, Tom Fiammetta, Eurest regional executive chef, prepared tomato bruschetta, red snapper and asparagus with lemon sauce.



SELF-CARE IN ACTION Yoga, Heart-Healthy Cooking Demos Highlight Heart Month

BY MARK SAMPSON

It's the second American Heart Month occurring during the pandemic, but NIH employees found a way to celebrate National Wear Red Day on Feb. 4 and launch the month-long observance. Even though most were kept apart physically, they joined together virtually to help promote a heart-healthy lifestyle.

This year's theme was self-care, which focuses on activities you can do to improve your heart health. That includes things like healthy eating, getting physical activity, getting enough sleep, and reducing stress.

The celebration kicked off with a virtual yoga demonstration featuring NIH fitness instructor Shannon Oussoren, who led participants in a series of stretches and breathing exercises. The host of the event was Dr. David Goff, director of NHLBI's Division of Cardiovascular Sciences, who also participated in the yoga demo.

"It's been a stressful time and during stressful times, it's incredibly important to make time for

your heart," Goff said. "When you take time every day, even if it's just 10-minute chunks, to move a bit more, breathe or stretch, it makes a lot of difference...And if you ever feel like you're not doing enough, well, give yourself a little bit of a break. Research shows that self-compassion is good for the heart."

The month's celebration also included a heart-healthy cooking demonstration on Feb. 11.

Sponsored by Eurest and The Heart Truth, the demonstration featured Tom Fiammetta, Eurest regional executive chef, and Michelle Sadlowski, Eurest eastern division wellness director. They prepared tomato bruschetta, red snapper and asparagus with lemon sauce. All the items were DASH-friendly, meaning they followed a dietary pattern designed to prevent high blood pressure, a risk factor for heart disease.

If you missed the yoga and cooking events, you can still watch them in the past events section on The Heart Truth Facebook page at https://www.facebook.com/hearttruth/past_hosted_events. You can also visit www.nhlbi.nih.gov/HeartMonth for resources that can help you make heart-healthy lifestyle changes in the future.

