HHS Secretary Becerra Visits

HHS Secretary Xavier Becerra visited NIH on Nov. 4 for the first time as head of the department. Accompanied by Deputy Secretary Andrea Palm and other HHS staff, he spent more than 2 hours touring a lab in the Clinical Center, meeting with top leadership including NIH director Dr. Francis Collins, principal deputy director Dr. Lawrence Tabak and several institute and center directors, and getting briefings and a lab demonstration at the Vaccine Research Center (VRC).

“Welcome, HHS colleagues, to the NIH Clinical Research Center,” said Collins, greeting Becerra and Palm at CRC’s north entrance and describing the world’s largest hospital devoted to medical research. At the 3-D model of Bldg. 10, Collins pointed out the close relationship of hospital beds to laboratories, and gave an overview of the scientific enterprise.

Animal Care Workers Appreciated on Director’s ‘Gratitude Tour’ Call

Animal care workers make the NIH mission possible,” NIH director Dr. Francis Collins told attendees at a recent “Gratitude Tour” stop.

The director continued making his rounds to thank groups and individuals for their dedicated work over the last nearly 2 years under pandemic conditions. He recently visited virtually with animal care workers in a call introduced by Dr. Stephen Denny, director of the NIH Office of Animal Care and Use.

Animal-based research has a long history of providing fundamental insights that lead to significant medical advances—the most recent being Covid-19 vaccines and treatments. The Oct. 14 tour stop was originally

A MATTER OF PLACE, SPACE
Winn Urges Tackling Disparities

It’s time to address the elephant in the room: science and technology alone will not eradicate cancer.

“As we’re now entering into an era of precision medicine and immunotherapy, let’s be more deliberate in our delivery and more equitable with the distribution of this wonderful science to our communities,” said Dr. Robert Winn, director and Lipman chair in oncology, VCU Massey

Hire Health Care Workers with Disabilities, Says Mason

A lot of people with disabilities are health care workers. And many more are waiting for a chance, said Ryann Mason during the NIH’s National Disability Employment Awareness Month keynote address.

“Most individuals with disabilities are much more independent than people realize,” said Mason, a registered nurse and disability advocate. “There’s really nothing holding these individuals back.”

To her knowledge, she is the only nurse
Register for NCATS 10th Anniversary Event

Did you know only about five percent of diseases have a safe, effective treatment? The high failure rate of drug development led to the creation of the National Center for Advancing Translational Sciences nearly 10 years ago. Learn about how NIH’s newest center is using translational science and state-of-the-art technologies to bring more treatments to all people more quickly during a special virtual event on Tuesday, Dec. 7 from 12:30 to 5 p.m. ET.

Featured topics will spotlight the transformational power of data, novel approaches for de-risking a drug’s journey along the preclinical pathway, crosscutting solutions for addressing many diseases at a time and high-impact innovations in clinical research.

The event opens with remarks by NIH director Dr. Francis Collins and NCATS acting director Dr. Joni Rutter. Speakers will discuss remaining roadblocks and new opportunities through conversations and lightning-round talks.

The event is free and open to the public. Learn more about the event and register: https://ncats.nih.gov/events/NCATS-10th-Anniversary.

Federal Benefits Open Season Underway, Ends Dec. 13

The Benefits Open Season runs through Dec. 13. If you plan to make an election, now is the time. Unless you experience a Qualifying Life Event during the year, Open Season is your only opportunity to enroll, cancel or make a change to enrollment for the participating programs.

For details, view https://hr.nih.gov/benefits/change-open-season/benefits-open-season.

The three participating programs are:

1) Federal Employees Health Benefits (FEHB) Program—To enroll, cancel or change FEHB enrollment, you must use myPay at https://mypay.dfas.mil/mypay.aspx. Elections will be effective on Jan. 2, 2022. Current enrollment will automatically continue into next year, if you do not take any action.

2) Federal Employees Dental and Vision Insurance Program (FEDVIP)—To enroll, cancel or change FEDVIP enrollment, you must use the BENEFEDS Portal at www.benefeds.com or call 1-877-889-3337 (TTY: 1-877-889-5680). Open Season elections become effective on Jan. 1, 2022. Current enrollment will automatically continue into next year, if you do not take any action.


Direct questions to AskBenefits@nih.gov or your benefits contact. Find your contact at https://hr.nih.gov/contacts/benefits.

New ORWH Video Series Complements e-Learning Course

ORWH recently released a series of supplemental videos that complement the Sex as a Biological Variable (SABV): A Primer e-Learning course. The SABV course gives users a thorough and up-to-date understanding of NIH requirements for factoring SABV into research designs. Users will be able to apply this knowledge when designing studies, conducting research and interpreting evidence. The videos introduce SABV and the NIH policy, summarize the e-learning course and its four modules and share insights on SABV and sex differences research from principal investigators in the Specialized Centers of Research Excellence on Sex Differences program.

ORWH has also developed two other e-learning courses: Bench to Bedside: Integrating Sex and Gender to Improve Human Health, and Introduction: Sex- and Gender-Related Differences in Health. All of the courses and videos are available at no cost to the public.

For details, visit https://orwh.od.nih.gov/career-development-education/e-learning/sabv-primer-supplement.

FAES To Offer January Intersession

Foundation for Advanced Education in the Sciences (FAES) will offer four 3-week credit-bearing courses in the January 2022 intersession. Courses in bioinformatics, statistics, virology and national security begin Monday, Jan. 10 and are conducted asynchronously online through Friday, Jan. 28.

Certiﬁcate courses may satisfy requirements to earn a digital badge. Register at education.faes.org through Jan. 7, 2022.

FAES is the nonprofit education partner to NIH, providing affordable continuing education in the evolving sciences since 1959. FAES launched intersession courses in 2020 to provide new learning opportunities outside of fall, spring and summer terms.

In addition to academic courses, FAES offers workshops, educational webinars, online lectures, and faculty networking for professionals at NIH and in other federal service and the public.
For the second year in a row, NIH has been home of the Federal Employee(s) of the Year as selected by the nonprofit, nonpartisan Partnership for Public Service, which operates the 2021 Samuel J. Heyman Service to America Medals (“Sammies”) competition. In addition, NIH’ers were honored in a new category of Sammies.

Dr. Barney Graham, who recently retired as deputy director of the Vaccine Research Center and chief of the NIAID Viral Pathogenesis Laboratory, and former VRC research fellow Dr. Kizzmekia Corbett, now Shutzer assistant professor at Harvard Radcliff Institute, received top honors as 2021 Federal Employees of the Year. They were cited for conducting “groundbreaking research that led to the development of highly effective vaccines in record time that are protecting hundreds of millions of people from contracting the deadly coronavirus that swept across the globe in 2020 and 2021.”

Dr. Eliseo Pérez-Stable, director of the National Institute on Minority Health and Health Disparities, and Dr. Gary Gibbons, director of the National Heart, Lung, and Blood Institute, won the inaugural Covid-19 Response medal. They spearhead two major federal programs—RADx-UP and the Community Engagement Alliance (CEAL) Against Covid-19 Disparities to reduce Covid-19-associated morbidity and mortality disparities experienced by underserved and vulnerable communities. This new medal was added to the Sammies to recognize the extraordinary efforts led by federal workers in response to the pandemic.

An hour-long virtual ceremony saluted all public servants and Sammies honorees. Watch it on youtube: https://www.youtube.com/watch?v=T7-CHjaz5C4. In addition, an in-person celebration was held at the Kennedy Center. Vaccination was required and guests wore masks at all times except for photos and when drinking/eating.

Last year, the partnership named NIAID director Dr. Anthony Fauci as Federal Employee of the Year and NCI’s Dr. Ira Pastan won the group’s Paul Volcker Career Achievement Award.

The Sammies, renamed in 2010 for entrepreneur and partnership founder Heyman, began in 2002 to recognize and celebrate outstanding achievement in the public sector. Since then, the competition called the “Oscars of federal service,” has honored more than 660 federal employees.
in a wheelchair in Virginia, where she lives. She was born with Ehlers-Danlos syndrome, a connective tissue disorder caused by abnormalities in the structure, production and/or processing of collagen. Symptoms include increased range of motion, loose, unstable joints that dislocate easily, and skin that bruises easily.

Growing up, she was in and out of the hospital with orthopedic injuries. Her mother thought she was just clumsy. When she was diagnosed at 16, her doctor told her she would soon be in a wheelchair.

She went to college to become a registered nurse. While she was a student, her injuries started to wear on her. For the first time in her life, she began using a cane.

After she graduated, Mason took a nursing position in an emergency room. She worked her way up through the ranks and thought about becoming a flight nurse. Unfortunately, although her career progressed, her symptoms got worse.

“Ehlers-Danlos syndrome is a degenerative disease,” she said. “All of those dislocations cause wear and tear on your joints over time.”

Her hips began to dislocate every time she took a step and she fell more often. Mason worried she would fall on a patient, so she became an acute care case manager. She was fitted for a wheelchair. Adapting to a new way of life was a big transition. Before she began using a wheelchair, she could hide her diagnosis if she wanted to.

“I was absolutely terrified,” she said. “I thought, ‘well, there goes my nursing career. I guess I’ll be in case management forever or something else away from the bedside.’”

When the Covid-19 pandemic began, she was frustrated. She couldn’t help her coworkers care for patients. One day, she went into a room and discovered that a nurse was using a virtual assistant in a room with a laptop and a mouse, but she couldn’t see the screen. She began to wonder if she was more comfortable with this approach than others.

“...”

Mason on the job

Mason

CONTINUED FROM PAGE 1

“...”

OM SAY, CAN YOU SEE?

NIH’er with Low-Vision Offers Perspectives on Accessibility

BY DAVID A. KOSUB

Scientists like me who traded their pipettes in for pens still attempt to understand the world around us through experiments, so join me for a virtual one. First, close your eyes.

Were you able to continue reading? If so, then you have mutant powers, cheating with your eyes open, or someone made it accessible.

Here’s another. What’s on the left? If you do not see anything, then you can understand how some folks feel when websites do not convey an important message in writing.

Here, I want to convey that actively considering accessibility throughout your professional duties means more people will understand your intended message. Spoiler...I’m visually impaired.

Doing so means you should remember Section 508 of the Rehabilitation Act of 1973—your friend and mine. It requires “federal agencies make their electronic and information technology accessible to people with disabilities...comparable to the access available to others.”

Section 508 allows those with vision and other impairments to create, interact with, review, access and comprehend the vast stores of NIH information available to us all.

Here are ideas to see what I am talking about. You may also find these training (https://www.section508.gov/training/) and federal accessibility standards (www.access-board.gov/) helpful.

The spirit of Section 508 should be embraced, not viewed as another checkbox to complete. When it’s integrated seamlessly into your workflow, then the paradigm shifts from an afterthought to appreciating how others consume information. Though there may be growing pains, I usually observed that folks have fewer headaches at the end when trying to make things accessible along the way.

You may also find that exploring the existing capabilities on your current software and testing screen readers are eye-opening. These experiences allow you to feel how a visually impaired person interacts with content, quickly revealing unintended quirks and reinforcing the importance of creating simple, user-friendly materials.

I encourage sitting with a colleague and watching them navigate your materials to feel what a low-vision user experiences. Though I am open to it, recognize some people may be more comfortable with this approach than others.

Now let’s talk about alt text. Remember that mysterious image? If it simply said, “picture of a lazy kitty,” then people like me with screen readers would get that warm and fuzzy feeling too.

Alt text is simply brief helpful text. When coming across a graph clearly stating the axes, legends and general trends, then I’m more involved in the NIH data club. When navigating training, clearly labeled images make me a happy student. Presentations with tagged descriptions go a long way (and presenters who fully verbalize their slides, even further). Complex infographics can be broken down to simple messages. My point? Take some extra time to embed alt text, but don’t overthink.

We are all in this together. NIH Section 508 coordinators (https://ocio.nih.gov/ITGovPolicy/NIH508/Pages/Section508Coordinators.aspx) and communication staff can help. Also consult the 3 Blind Mice (https://www.youtube.com/watch?app=desktop&v=Dw5M9pKx2t8), a group formed to understand the concerns facing low-vision staff and find solutions to enhance work experiences.

When we all consider accessibility, then more in the communities we serve can better comprehend our resources and staff can more successfully support NIH’s mission.

To read more about Section 508, go to www.gsa.gov/resources-for/citizens-consumers/accessibility/section-508.
HHS Announces Return-to-Workplace Planning Efforts

HHS has released the outline for its Return to Physical Workspace plan for all operating divisions, including NIH.

The four-phased HHS plan has replaced the NIH Framework for Returning to Physical Workplace that had been in place since June 2020.

The new plan is contingent upon a reasonable trajectory of the Covid-19 pandemic over the coming weeks. Should there be another significant surge, it is possible these plans might need to be delayed.

“Our number one priority remains the health and safety of our workforce,” said NIH director Dr. Francis Collins in a Nov. 4 all-staff email. “We will not be returning to a pre-Covid-19 workplace. The past 20 months have demonstrated that large segments of our workforce have been able to successfully telework and use other workplace flexibilities. We expect these flexibilities to continue for most staff as we begin to return.”

At NIH, the first phase has already started. Since early September, federal employees, fellows and trainees who perform laboratory and clinical activities that must be done on site have been eligible to apply for voluntary return on site.

Recently, the voluntary return process expanded to include all federal employees, fellows and trainees, regardless of the type of work they're performing. Contractors are not eligible to apply to voluntarily return on site.

Those interested in applying to voluntarily return to NIH facilities must complete an application form found on the Return to the Physical Workplace intranet web page.

Beginning Dec. 5, senior NIH leadership—including the NIH director and deputy director and IC directors—and their support staff will start to return.

On Jan. 2, 2022, budget/finance, grants, acquisition, human resources, equal employment opportunity and information technology employees will begin their return.

All remaining employees will start returning on Jan. 16. Federal employees will be provided at least 30 days of notice before returning. They will receive further details about their phase assignment and workplace schedule.

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“The second I got my wheelchair, I thought I was unemployable and soon to be without my dream job as a nurse,” she concluded. “But that’s just not the case.”

Mason's keynote address was hosted by the NIH Office of Equity, Diversity and Inclusion, in partnership with the National Institute of Nursing Research and the Clinical Center nursing department. 

Mason continues to work in her dream job as a nurse.

The patient had no pulse. She jumped out of her chair and gave the patient CPR. The experience spurred her on.

“I’m not done nor washed up,” Mason explained. “My nursing knowledge was not stored in my legs. It didn’t hit me until I had a patient who lost their pulse.”

Mason began volunteering as a nursing assistant in her hospital to prove she was still capable of doing the job. Once she knew she could, she found other nurses with disabilities.

“I became a board member for the National Organization of Nurses with Disabilities. I met other nurses in wheelchairs and found out that I’m not alone, and that this is something that I can accomplish,” she said.

She took a position as a staff registered nurse on a postpartum floor. When she was hired, her employer told her, “We’ve never done this before. We’ve never had a nurse on wheels but you seem very confident you have the skills.”

Before she was hired at her current hospital, she applied for 20 nursing jobs. She later found out hiring managers declined to interview her when they saw photos of her in a wheelchair on the internet.

In reality, Mason’s employer did not need to change much to accommodate her. The fire doors, for example were too heavy, so they had to be changed and she needed a desk chair to raise her high enough to see over a baby’s bassinet.

Many times, however, the people who are making the accommodations don’t realize they aren’t as accommodating as they could be. She recommends they must speak with the people receiving the accommodations to see if they are actually helpful.

“Until you put yourself in someone else’s shoes, you don’t realize how accessible a space is,” she said. “I did not have the slightest inkling to look for things like curb cuts on sidewalks, wider doorways to accommodate wheelchairs, the way doors [swing] open and closed or how heavy hospital bathroom doors are.”

There’s really nothing holding individuals with disabilities back from health care jobs—it just hasn’t been done before.

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HEALTH, SAFETY TAKE PRIORITY
Gratitude

CONTINUED FROM PAGE 1

intended to be in-person, but Covid-19 prevented that. However, there was a silver lining: the virtual format allowed animal care workers (ACWs) from across the country to join the call. Staff from Bethesda, Rockville, Frederick, Poolesville and Baltimore, Md.; Research Triangle Park, N.C.; Hamilton, Mont.; and Holloman Air Force Base, N. Mex., were able to attend.

Twenty-five NIH institutes use animals in their intramural science programs, and there are currently more than 2.3 million animals advancing NIH intramural research annually, according to Denny and OACU. “We hold approximately 1.5 million animals daily in our research colonies,” he noted. Their care is diligently managed by more than 1,000 veterinarians, cage washers, technicians, administrators and others, and these employees have upheld a high standard of care throughout the pandemic.

Many examples of exceptional dedication of animal care workers were cited. The NIH Division of Veterinary Resources implemented a lab animal adoption program in February 2019 and has re-homed more than 40 animals (including rabbits, guinea pigs, minipigs, sheep and dogs). In June 2021, the Bethesda animal research sites also successfully underwent the intensive triennial AAALAC International accreditation site visit. AAALAC is a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs.

Deputy director for intramural research Dr. Michael Gottesman shared during the Zoom that he had just received the email confirming NIH’s continued, full accreditation status for the next 3 years, documenting the agency’s commitment to responsible animal research practices.

Collins gave a shout-out to the animal technician in his own NIH GRI lab, Urraca Tavarez, who rises early every morning to take care of the mice that are vital to research on Hutchinson-Guilford progeria syndrome. “Urraca is a really critical part of our team,” Collins said.

Because of the nature of their jobs, many ACWs could not telework. They had to contend with distancing requirements, isolation from coworkers, difficulties in using public transit and many other complications. There were also upsides, though, as revealed by representatives from across the country.

Liz McCart, an NIA program specialist in Baltimore, spoke about the challenges of being a new employee at the start of the pandemic.

“I had only been at my job for 4 months when we switched to maximum telework,” she said. “It was challenging to figure out a new animal care facility while many employees were teleworking.” She was not the only new NIA employee at this time: they also onboarded a new animal program director.

“As you can imagine, it was the blind leading the blind for several months when it came to remembering names, room numbers and locations of things,” McCart said via email. All soon found their way, though. McCart settled into her position and became the go-to person for coordinating lab access for investigators.

Johnny R. Green, a training specialist contractor working at NIEHS, described Covid-19 as “a rugged mountain we’ve been navigating,” but “we’re all in this together.” He said he and coworkers have learned to tap into “our versatility to adapt to the unpredictable nature of Covid-19” in response to pandemic-related staff shortages. Green and colleagues pulled together to take care of the animals, investigators and each other.

Valdez Bosse, an animal care specialist who has worked at NIH for 17 years works for the Division of Veterinary Resources. Since the start of the pandemic, he has learned how to care for an entirely new species of rodents (shrews) and has become the shrew expert among his coworkers. He has also taken on supervisory responsibilities and dealt with the challenges of working split shifts with fewer employees.

“It was tough not seeing some of the coworkers that I’ve been used to working with for the past 17 years,” he admitted, but he was also grateful for his new supervisory role and the new experiences caring for a different kind of rodent.

“The tamer of the shrews!” Collins joked. Lydia Crawford, a biosafety level 4 husbandry technician at NIAID’s Rocky Mountain Laboratories, spoke about the spirit of community that arose from what could have been a disruptive lab shutdown. Procedures occur yearly for equipment and system repairs, she said, but pandemic restrictions added a new layer of complexity.

Several of the busiest entrances to a BSL-4 lab were shut down, but rather than...
“Unlocking Life’s Code’ Returns to D.C. After Tour

BY RACHAEL ZISK

After a 7-year tour across North America, the widely popular Genome: Unlocking Life’s Code exhibition has returned to the Smithsonian’s National Museum of Natural History (NMNH). A collaboration between NMNH and the National Human Genome Research Institute, the high-tech, interactive exhibition allows visitors to explore the complexities of the human genome and the history of genomics research.

“The field of genomics is incredibly exciting and the exhibition was designed to convey the breadth and depth of the science to visitors in a fun and interactive way,” said Dr. Lawrence Brody, director of the NHGRI Division of Genomics and Society, who worked with the Smithsonian to help develop the exhibition.

The installation first opened at NMNH in 2013 to commemorate the 60th anniversary of the discovery of the double-helical structure of DNA and the 10th anniversary of the completion of the Human Genome Project. Roughly 3 million visitors viewed the exhibition at the Smithsonian during its original stay. The presentation then left NMNH in September 2014 to go on tour, visiting history museums and science centers throughout North America for several years.

Now, it’s making a grand return to NMNH, where museum visitors will once again be able to explore the history, science and impact of genomics.

Unlocking Life’s Code incorporates video, 3-D models and interactive quizzes to create a high-tech, immersive experience for its visitors. It was originally designed with the dynamic nature of genomics in mind, using modular panels that can be updated to add new information as the field advances. Updates to the returning exhibition include sections on CRISPR genome editing and the use of data science in genomics.

The exhibition opened at NMNH on Oct. 21 and is scheduled to remain open until summer 2022.
“I’m fascinated to be here and to be able to see all of this,” said Becerra to Collins, in the atrium of the Clinical Research Center. “Whenever someone finds themselves or their relatives [facing a health crisis] they always say, ‘I want to be at NIH.’ And now I can see why…”

The Clinical Center is the best place to bring lawmakers, policymakers and decision-makers because it captivates them immediately and shows them why it’s important to invest in biomedical research and to commit more funding to its expansion, noted Becerra, himself a former 12-term U.S. congressman.

Collins then led the small HHS delegation to a lab in NCI’s Pediatric Oncology Branch, where the group was shown around by its chief, Dr. Brigitte Widemann, and Lasker clinical scholar Dr. Jack Shern.

In the 4th floor medical board room, Becerra and Palm next met with a young man participating in an NIH clinical protocol and his mother.

Afterwards, six IC directors assembled with the secretary and deputy secretary for a briefing. Seated around the conference table, along with Collins and Tabak, were NLM director Dr. Patricia Flatley Brennan, NIAID director Dr. Anthony Fauci, NHLBI director Dr. Gary Gibbons, NIMHD director Dr. Eliseo Pérez-Stable, NCI director Dr. Ned Sharpless and NIDA director Dr. Nora Volkow.

The Dale and Betty Bumpers VRC (Bldg. 40) was the final stop on the tour, with Fauci presenting a slideshow history of the facility and an overview of Covid-19 vaccinology to the HHS visitors, gathered in a first-floor conference room.

Joining HHS leaders around the table were VRC director Dr. John Mascola; VRC deputy director Dr. Richard Koup; Dr. Nancy Sullivan, chief of the biodefense research section in the VRC’s Viral Pathogenesis Laboratory; Dr. Robert Seder, chief of the cellular immunology section in NIAID’s Immunology Laboratory; and Dr. Jennifer Anderson, VRC associate director for management and operations.

Fauci described the development of a stabilized version of the spike protein on the coronavirus—SARS-CoV-2—that causes Covid-19. “This protein, which was established right here in this building, now is in 5 out of the 6 [Covid-19] vaccines that are being utilized throughout most of the world,” said Fauci, explaining how the VRC’s cadre of talented researchers and unique scientific environment contribute to the success of its mission. “So, we are really talking about how you can have fundamental basic science that emanates from a couple of investigators who collaborate with people throughout the country… you [develop] a life-saving vaccine. That to me is really an enormously important story.”

His point was reiterated later in an upstairs lab by Sullivan, whose career at the VRC began in 1999, before construction of Bldg. 40. Recalling the many years of foundational research at Bldg. 40 that led to the establishment of vaccine platform prototypes, she explained how this enabled the development of Ebola vaccines and treatments.

“This is a cycle that allows us to accelerate the pace with which we discover these vaccines and respond very quickly,” Sullivan explained, “and what makes that happen is the VRC organization—the fact that we all work so closely together here lets us do this.”

Concluding the visit, Fauci pointed out that he was going to close with one of Collins’s favorite themes: “The fact is, Mr. Secretary, that the fundamental basic research that comes out of NIH and that the HHS funds really has its fingerprints on everything that goes on everywhere [around the world] with a biomedical science basis.”

“Absolutely,” Collins confirmed, smiling, “all of it is part of our ecosystem, along with all of our sister agencies in the HHS.”
Study Links Sleep Habits, Weight Gain in Babies

Research suggests that newborns can reap some of the same health benefits that others get from consistent, quality shut-eye. The study, published in SLEEP, found that infants who sleep longer through the night and with fewer interruptions may be less likely to become overweight during their first 6 months of life.

“What is particularly interesting about this research is that the sleep-obesity association we see across the lifespan appears in infancy and may be predictive of future health outcomes,” said Dr. Marisha Brown, director of NHLBI’s National Center on Sleep Disorders Research. Brown noted that, for children, the benefits of better sleep include a reduced risk of developing obesity and diabetes, while supporting development, learning and behavior.

The new research emerged from the Rise and SHINE (Sleep Health in Infancy & Early Childhood) study, supported by NHLBI, NIDDK and the Health Resources Services Administration.

Researchers observed 298 newborns. For every hourly increase in nighttime sleep, measured between 7 p.m. and 8 a.m., the infants were 26 percent less likely to become overweight. Likewise, for each reduction in nighttime awakening, they were 16 percent less likely to become overweight.

To conduct the study, researchers partnered with mothers who delivered a baby at Massachusetts General Hospital between 2016-2018. The researchers used ankle actigraphy watches to objectively track nighttime movement.

Parents also kept infant sleep diaries and shared insights about activities that could have affected each infant’s sleep pattern or weight. The researchers also took maternal health and sociodemographic considerations into account.

After the first month, researchers found 30 of the infants (10.3 percent of the sample) were overweight. Most reached a normal weight at 6 months. At 6 months, 26 infants were overweight, including 15 who were not previously overweight.

While more data is needed to observe these potential links and additional impacting factors, the evidence so far suggests that sufficient, consolidated sleep could be a powerful tool in reducing obesity risks early in life.

Targeted Antibiotic Shows Promise Against Lyme

Researchers found that a neglected antibiotic called hygromycin A selectively kills Borelliella burgdorferi, the bacteria that cause Lyme disease. The antibiotic was able to treat Lyme disease in mice without disrupting the microbiome. Results of the NIAID-supported study appeared in Cell.

Treatment of Lyme disease entails the use of broad-spectrum antibiotics. These drugs kill the Lyme-causing bacteria but also kill many other bacteria types as well. As a result, they can damage the patient’s gut microbiome and select for resistance in non-target bacteria.

A team of researchers wanted to find an antibiotic that would kill B. burgdorferi while leaving other bacterial species alone. They suspected compounds that selectively kill B. burgdorferi might already exist in nature. To find out, they screened extracts from more than 450 soil bacteria.

The researchers purified and identified a compound from this extract that acted against B. burgdorferi. It turned out to be hygromycin A, an antibiotic discovered in 1953. The team confirmed that hygromycin A did not kill most bacteria, including many beneficial gut microbes. But it did kill B. burgdorferi and other bacteria in the same class very effectively. Further investigation showed that B. burgdorferi took up the drug much more easily than other bacteria.

Hygromycin A had no toxic effects on human cells. In a mouse model of Lyme disease, 5 days of hygromycin A treatment cleared the infection as well as broad-spectrum antibiotics did but without disrupting the gut microbiome.

Hygromycin A baits could be used to clear the disease from wild mice. Since mice are the principal hosts of B. burgdorferi, this strategy might help to eradicate the disease at its source. More study will be needed before the compound can enter clinical trials.—Brian Doctrow, NIH Research Matters

Therapy Improves Survival for Younger People With Cancer

New evidence suggests that adding the targeted therapy ibrutinib (Imbruvica) to a standard chemotherapy regimen can improve how long some younger people with a specific form of diffuse large B-cell lymphoma (DLBCL) live. The findings, published in Cancer Cell, come from a new analysis by NCI researchers of a previously conducted phase 3 clinical trial.

Initial results from that study, known as the PHOENIX trial, showed that combining ibrutinib with the standard chemotherapy regimen did not help patients with a form of DLBCL called non-GCB DLBCL to live longer overall. However, by analyzing tumor biopsy samples from patients in the trial, NCI researchers have now shown that younger patients with specific genetic subtypes of non-GCB DLBCL, called MCD and N1, had an exceptional response to the treatment combination, with all such patients alive without disease 3 years after diagnosis.

“People thought the trial didn’t work,” said Dr. Louis Staudt of NCI. “But there was something interesting going on. If you just considered younger patients under the age of 60, they had a real benefit from ibrutinib, and we now understand why.”

DLBCL is the most common type of lymphoma, accounting for 40 percent of lymphoma cases worldwide. This fast-growing cancer affects B cells, a type of white blood cell, and usually starts in the lymph nodes. People with DLBCL are typically treated with a chemotherapy regimen known as R-CHOP, but it’s not effective for all people with DLBCL.

In the 2000s, to better understand individual variation in treatment response, researchers analyzed the patterns of gene activity in DLBCL tumors. They discovered three molecular subgroups of DLBCL that each respond differently to chemotherapy.

In a previous phase 2 clinical trial involving patients with relapsed DLBCL, researchers found that treatment with ibrutinib alone resulted in tumor shrinkage in 37 percent of patients with the ABC subtype but only 5 percent of those with the GCB type. Subsequently, researchers launched the PHOENIX trial to evaluate the impact of adding ibrutinib to R-CHOP in patients with newly diagnosed non-GCB DLBCL.

“For years we have only had chemotherapy and rituximab to offer these patients,” Staudt said. “Now, we hope that adding ibrutinib to current therapy may give younger patients a better chance of surviving this aggressive cancer.”
Cancer Center, at a recent NCI CURE Distinguished Scholars seminar.

This year marks the 50th anniversary of the National Cancer Act, ambitious legislation that launched the war on cancer and established the first National Cancer Institute-Designated Cancer Centers. Winn, the second-ever African-American director of one of these centers, proposed a challenge going forward.

“We are at a crossroads now,” he said. “We need to reimagine and challenge ourselves about what the next 50 years is going to look like.”

For Winn, that means basic and translational science must go hand-in-hand with population science and health care delivery. “I will no longer accept [the excuse] that it’s hard to address health disparities issues. Those days should be in the rearview mirror,” Winn declared.

“I recognize that even with my love of science, if we’re not paying attention to the implementation, integration and communication of that science while we’re doing some good, we may not be doing as much good as we should.”

Winn used the example of two sisters. As adults, one moves to an affluent neighborhood, the other to an impoverished area. Both sisters develop breast cancer. Will their treatments be the same? Maybe they should; perhaps they should not.

“While biology is important to our outcomes,” he said, “I think we are missing the whole impact that place and space have on that DNA.”

If one’s surroundings lack access to fresh food and quality medical care and are riddled with environmental pollutants, place and space create more risk for disease.

Recent studies show an overall reduction in cancer deaths among Black Americans since the 1990s. “But take a better look under the hood,” cautioned Winn. “Disparities are still there.”

Breast cancer mortality continues to decrease across the country overall, but some places have much better track records than others. Improved screening is saving lives, but some parts of town lack access to this technology.

“Your zip code, your neighborhood of association—that is your ‘ZNA’—certainly intersects with and impacts your DNA,” said Winn. “And it’s that level of science I’m most intrigued by for the 21st century.”

Winn started his career as a cell biologist, studying how a dysregulated cell disrupts other cells to cause cancer. But he changed his trajectory upon learning of the stroma, the connective, supportive tissue that contributes to that spiral.

Winn made the connection that, much like the individual cell and its stroma, each person can be affected by the social determinants of health within their community.

In downtown Chicago, life is good and long. But go 4 miles west and life expectancy drops by 16 years. Go 8 miles south and it drops 30 years. Is crime to blame? Studies show violence is a negligible indicator. Other social determinants of health are at play here, created by decades of systemic inequity.

Take Richmond, home to VCU Massey Cancer Center. Back in the 1930s, despite sanctioned segregation, African-American communities such as Jackson Ward became self-sufficient and robust. But then came the urban renewal of the ’50s and ’60s that deemed these thriving areas slums and decimated them to build highways.

“Don’t tell me that structure from the past is not impacting what we live today,” Winn said. “Don’t play with me that it’s just that African Americans are indigenously more predisposed to hypertension and diabetes and cancer. Yes, biology is at play. Yes, we know with triple-negative breast cancers that ancestry is at play. But we also know the ZNA is impacting the DNA.”

One structural improvement that would yield significant benefit is investing in transportation, he suggested. Millions of Americans delay or neglect medical care because they can’t get to the doctor.

“More than half of our people are not getting to us,” said Winn. “The bench-to-bedside model [doesn’t work] if you can’t get to the bedside. Miracles can’t work if we can’t get people through the door.”

And the latest medical treatments can’t work without public trust, which is an uphill battle in communities of color. “Health
science delivery sometimes gets caught up in Ivory Towers and is not getting out into the ‘hoods,” said Winn. “We have to get into a habit of not [only] being in a community as long as the grant lasts, but well after the grant has finished.”

Gaining trust also requires paying close attention to how the science is communicated. “We really all need a little grace and humility as scientists,” he said. “Science must take a pause. It must listen; it must learn; and it must change.”

The CURE (Continuing Umbrella of Research Experiences) program supports individuals from underrepresented groups across the academic continuum, from middle school students through independent cancer researchers. CURE Distinguished Scholars seminars highlight innovative cancer health disparities research.

### 2021 Federal Employee Viewpoint Survey Open Through Dec. 10

The 2021 Federal Employee Viewpoint Survey (FEVS) is currently open until Friday, Dec. 10. The highly anticipated government-wide survey gives eligible federal employees an opportunity annually to provide confidential feedback about work satisfaction, leadership and work/life balance.

Last year, 10,976 employees (68 percent of eligible NIH staff) completed the survey to voice their opinions. NIH participation has grown more than 28 percent in the past 6 years as leaders across the agency began to prioritize FEVS and its data transparency, making pivotal changes based on employee feedback.

This year, instead of the U.S. Office of Personnel Management’s normal approach to provide a census survey to all federal NIH employees, OPM will conduct a stratified sample. OPM will send a personalized invitation to a sample of 7,956 NIH employees, representing 43 percent of the usual eligible workforce.

Eligible federal employees who will be included in the sample are full- and part-time permanent and non-permanent employees, on board on or before Apr. 25, 2021.

Employees selected by OPM to participate will receive an email:

From: Federal Employee Viewpoint Survey-HE
Subject: 2021 OPM Federal Employee Viewpoint Survey

It is anticipated that in May 2022, FEVS will return to a survey of all eligible federal NIH employees.

For more information on FEVS, visit https://hr.nih.gov/workforce/fevs or email NIHFEVS@nih.gov.

### After 35 Years, NIH’er Retires with Gratitude

**BY NEERAJA SATHYAMOORTHY**

I plan to retire end of 2021 and while it is something that I dearly look forward to, it is a bittersweet feeling. It is difficult to leave the NIH family behind, mine for close to 35 years. I joined in June 1987 as a CRADA fellow with a pharmaceutical company. However, the legalities took forever to be ironed out and I went through a period of not being paid. The senior leadership at NCI decided to step in and give me a visiting associate position.

It has been wonderful working in this organization. NCI has allowed me to grow both professionally as well as personally. I have worked with wonderful mentors—too many to mention by name. I started as a 32-year-old scientist with a 3-year-old son, after a 6-year postdoc stint at the University of Wisconsin. Within 2 years, our family grew with a baby girl. Both my husband, Sathy, and I, worked on the main campus. That allowed us to meet sometimes for lunch in the cafeteria or go for walks in the afternoon. While those were busy days, they were lovely days as well. We enjoyed taking courses at the Foundation for Advanced Education in the Sciences as well.

I started working with Dr. Andrew Muchmore, a clinician-scientist in the Metabolism Branch in Bldg. 10 and enjoyed my foray into immunology. I was a pure biochemist up to that point. Attending immunology courses offered by FAES helped me immensely and allowed me to get up to speed in the field.

After 4 years on the main campus, I was offered a position as a senior staff fellow at the Laboratory of Nutritional & Molecular Regulation at Frederick and moved on to become a tenure-track investigator.

It was an exciting time: I was nervous about the competitive nature of being a tenure-track principal investigator and not sure what my chance was of getting tenured. Realizing my limitations being a mother of two young children, however, I decided to do the best I possibly could.

With my husband and I both being involved in laboratory research, life was hectic. Saturdays were working days for us. Tissue cultures had to be taken care of and thankfully, my children got accustomed to accompanying me to the lab. They thought most kids spent weekends with their moms in the lab.

Despite being an immigrant and a woman, I am happy to acknowledge that I have lived in a relatively safe “bubble” as a scientist. Discrimination did happen, but it was negligible. By and large, I found encouraging and supportive mentors.

Colleagues became good friends. When you spend long hours in the lab and share experiences in which your “beautiful hypothesis gets slayed by ugly facts” time and again, you learn to commiserate with your coworkers. You depend on each other to remain motivated... We learned the best way to comfort ourselves after a “failed experiment” was to get Italian ice at Rita’s!

Sometime in the 1990s, NCI-Frederick initiated the Werner K. Kirsten fellowship for rising Frederick High School seniors to entice them into careers in the biological sciences. They would get paid summer internships and then, during the school year, commit to spending a few hours a week in the lab. I enthusiastically signed up to be a mentor and over the course of 4 years, trained 4 bright young people. I enjoyed teaching them and was naive enough to think that I was “inspiring” them with my research.

It turned out that these motivated, high-achieving individuals who worked with me over the course of a year would decide that this was not for them. Their reasons? The long hours I spent in the lab, my inability to spend weekends with my kids and being paid what they referred to as “not enough money!”

Dr. Yande Woude, one of my mentors in Frederick, introduced me to the NCI Extramural Program. I went on a detail for about 15 hours a week at the Center for Scientific Review and learned about grants review, study sections and program administration. It was a remarkable experience and changed the course of my scientific career. It enabled me to find a position as a program director in the Division of Cancer Biology, where I have worked since November of 1999. It has been a wonderful experience!

Rather than working on my own research, I have been a facilitator of science. While it was initially difficult for me to accept not having my own area of research, I came to appreciate the vicarious pleasure of mentoring fellow scientists getting their first grant and helping them navigate the challenges of being a researcher in cancer biology.

I retire with a certain amount of satisfaction, having made a difference in several scientists’ lives and am grateful for all I have learned.
NIH’ers Show Creativity in CFC Virtual Halloween Charity Fair, Mask Contest

BY MARIAH FELIPE

NIH’ers displayed their artistic talents and dramatic flair during the recent CFC Halloween Charity Fair and mask contest, which was held virtually for the second year in a row due to the pandemic. Eight courageous teams entered the competition, which had a superheroes theme.

The CC’s Francine Hiltbrand emerged victorious, winning first place for her bejeweled mask representing CC staff and all medical professionals fighting the Covid-19 pandemic. FIC’s Leo Garzon-Velez and his dog Sparky came in second with their Star Trek-inspired masks intended to represent that the sky is the limit for the CFC. Third place went to Lauren Gibson of CSR for her mask depicting the dog and cat that keep her company while tele-working, representing all of the CFC animal welfare charities that federal employees can support.

Additional entries to the contest included Syreeta Evans of NIMH and her family with masks that signified the emotions of disgust, sadness and happiness to express their feeling throughout the different phases of the pandemic.

Next was the duo, Dora Deegbe and Aziz Karawa ‘Z’ of NLM, whose unique masks were a nod to data scientists at NIH.

Matt Houle of NIDA wore a “supergirl” mask to represent his daughter and emphasize the importance of teaching the concept of giving from a young age. Steve Peterson of ORS wore an inventive costume representing the different tools that the Covid-19 car-line testing group uses to highlight the importance of their work fighting the pandemic at NIH. Lastly, Barbara Mulach of NIAID wore a colorful mask to represent the essential workers who have kept the world running throughout the pandemic.

FIC—the lead for this year’s CFC campaign—supplied the contest judges including Dexter Collins as “Captain CFC,” Alisha Sutton as “Sylvie” and Jonathan Deane as “Loki.” The event was hosted by Debra Gale, NIH CFC program manager, and Monica Hanson, CFC team and charity lead.

The proceedings also highlighted four CFC charities, including Medstreet, a local nonprofit that brings medical care to those without housing, and the Becky Love Foundation, which provides grief counseling and support for families who have lost a loved one to suicide.

The United Way National Capital Area Chapter joined the group along with D.C. Central Kitchen, a well-known charity that provides living-wage jobs, serves healthy meals in D.C. schools and provides produce to stores in neighborhoods where fresh fruits and vegetables are not accessible.

Representatives from each organization shared their missions and expressed gratitude for donations made through the CFC.

To view the archived webcast or make a donation, visit cfc.nih.gov.