



PANDEMIC ANNIVERSARY

Collins Reflects on Past Year, Looks Ahead with Optimism

On Mar. 11, 2020, the World Health Organization declared Covid-19 a pandemic. Shortly after, all telework-eligible employees across the NIH began teleworking to the extent possible, schools transitioned to distance learning and large gatherings were discouraged. After the initial weeks of sheltering in place, the social isolation continued. Many have endured illness and loss. Today, more than 30 million people in the U.S. have contracted Covid-19, and the national Covid-19 death toll exceeds 540,000.

“We can all agree that it has been a long and difficult year,” noted NIH director Dr. Francis Collins, in an all-staff email Mar.

12 observing the pandemic anniversary. “But there is encouraging news to report: Nationally, Covid-19 case numbers are gradually dropping, and with three highly effective Covid-19 vaccines in distribution, more people are being vaccinated every day.”

On Mar. 17, Collins marked the 1-year anniversary of NIH’s car-line Covid-19 testing operation by visiting the site and thanking employees on the frontlines there (see story, p. 4).

In his email message, Collins also acknowledged the many stressors and difficulties people continue to face and the importance of self-care. He ended with a note of gratitude and a nod to the air of resilience in the atmosphere.

“Most of all, NIH family, I want you to know how much your dedication matters,” Collins concluded. “You are one of the main reasons that I feel hopeful. We are going to get through this!”

This issue of the *NIH Record* focuses on the past year of working through a pandemic.



NIH director Dr. Francis Collins (l) visits staff at the car-line testing site, which marked its first anniversary recently. See story, p. 4.

PHOTO: CHIA-CHI CHARLIE CHANG

NIMH Investigators Discuss How to Power Through Pandemic, Move Beyond

BY ERIC BOCK AND DANA TALESNIK

As we mark a year since the pandemic began, we look back on a year filled with long bouts of social isolation, seemingly endless Zoom meetings and virtual chats with people we miss seeing in person, and the persistent stress of navigating through not-normal times.



Dr. Maryland Pao

‘People Are Resilient’

The Covid-19 pandemic anniversary is

SEE NIMH, PAGE 6

‘CORONA COASTER’ OF EMOTIONS Employee Needs, Support Systems Evolve

BY CARLA GARNETT

Looking back over the past year of work life amid a historic worldwide health crisis, professionals who help people navigate “Employee World” can now describe the textbook shifts in terrain we’ve experienced.

“We’ve definitely seen a predictable evolution,” said Anna Verschoore, Employee Assistance Program (EAP) manager and 30-year mental health clinician. “The primary issues a year ago were the logistics and emotions of



Anna Verschoore



A rainbow and other signs of light in nature, p. 12.

ALSO THIS ISSUE

ORWH Publishes Special Journal Issue on Maternal Health	3
Collins Marks Anniversary of Car-Line.	4
Mahoney Lecture Reset	9
RePORT Site Revamped.	10
Digest.	11

SEE EAP, PAGE 8

NIMHD Seminar Hosts UCLA's Mangione, Apr. 8

Dr. Carol M. Mangione of the University of California, Los Angeles, will present "Best Practices for the Development, Recruitment and Retention of a Diverse Faculty," the next lecture in the NIMHD Director's Seminar Series on Thursday, Apr. 8 at 3 p.m.



Dr. Carol M. Mangione

Mangione is the associate director of the UCLA Clinical and Translational Science Institute and a practicing primary care physician. Her expertise includes diabetes, health disparities, aging and public health policy.

For reasonable accommodation, call (301) 402-1366 or the Federal Relay, 1-800-877-8339. The talk will be videocast at <https://videocast.nih.gov/watch=41816>. To learn about the seminar series, visit www.nimhd.nih.gov/news-events/conferences-events/directors-seminar-series/.

CFC Reopens to Help with Winter Storm Recovery

The U.S. Office of Personnel Management announced that the Combined Federal Campaign (CFC) will conduct a special solicitation to support charities serving and affected by Winter Storm Shirley.

From now through Apr. 9, the CFC Online Giving Portal (<https://cfcgiving.opm.gov/welcome>) is

reopened and accepting new donations that will be considered supplemental to 2020 pledges. Donors can contribute via payroll deduction if they didn't select payroll for the 2020 CFC or contribute a lump sum payment to one or multiple charities via a credit or debit card. Electronic gifts made through the online system will be distributed to charities as early as Apr. 1.

The nationwide special solicitation will allow federal employees to voluntarily support not only the local non-profits in the state of Texas, but also non-profits nationwide that are responding to the devastation caused by the severe winter storm. All non-profits included in this solicitation have been vetted and approved to participate in the 2020 CFC.

By temporarily reactivating CFC, OPM is able to encourage federal, military and postal employees along with retirees to provide emergency assistance that will contribute toward the health and stability of charities and the people who rely upon them for critical help at this time.

For more information, go to <https://cfcna.givecfc.org/2021-special-solicitation-winter-storm-shirley>.

Nominations Open for Champions of EDI

NIH'S Office of Equity, Diversity and Inclusion (EDI) is accepting nominations for the annual Harvey J. Bullock Jr. Award for Equity, Diversity and Inclusion; Yvonne Thompson Maddox Award for Equity, Diversity and Inclusion; and EDI Award of the Year.

These awards recognize NIH employees who champion the ideals of EDI. Awardees will be recognized at the 2021 NIH Director's Awards Ceremony.

Nominations must be submitted to EDI no later than Friday, Apr. 9. Send nominations to ljeoma Ofoha at edi.outreach@nih.gov.

The Bullock Award honors a non-supervisory

employee or group of employees in grades 1-12 or equivalent.

The Maddox Award honors a non-supervisory employee or group of employees in grades 13-15 or equivalent.

EDI's Award of the Year honors an executive, manager or supervisor.

For more information, visit www.edi.nih.gov/consulting/outreach/edi-awards.

Child Care Board Recruits Members

The NIH Child Care Board seeks interested NIH federal employees to fill multiple board vacancies for 2021-2024. Individuals will begin serving in September 2021.

The NIH Child Care Board serves two primary functions:

- Advises on child and family programs and policies.
- Advocates for affordable, accessible and quality child care for the NIH community.

You need not be a child development expert to join—just an NIH federal employee interested in child care, resources for parents/grandparents/caregivers or work-life issues who is willing to participate in the work.

Members serve for 3 years, are required to attend 7 board meetings per calendar year, and are expected to serve on at least 1 board committee. Participation is an official duty, requires supervisor approval and may be included as a non-critical element on an employee's performance plan.

For a description of requirements and an online application, visit https://www.ors.od.nih.gov/pes/dats/childcare/ccb/Pages/board_membership.aspx. Application deadline is Friday, Apr. 9.

For details, contact Linda.Owen@nih.gov or (301) 827-3250, or visit www.childfamilycare.ors.nih.gov.

NHLBI Hosts Event on Disease Management Tools for Underserved Populations

The National Heart, Lung, and Blood Institute will host a virtual research and implementation workshop Apr. 14-15 to discuss barriers to—and opportunities for—improving heart, lung, blood and sleep health outcomes in underserved, low-resource and remote communities. The workshop aims to identify practical and affordable technology solutions for disease diagnosis and

management in these groups, prioritize the ones that could have the greatest impact and determine the ones best suited for further research. The event is available via NIH videocast and is free and open to the public. Learn more and register in advance, <https://go.usa.gov/xsyer>.

Diagnosics and Disease Management Tools for Use in Underserved Populations:

An NHLBI Research & Implementation Workshop

Virtual Event
April 14–15, 2021



IMPROVING MATERNAL HEALTH ORWH Publishes Special Issue of JWH

Staff and researchers from the Office of Research on Women's Health have collaborated on a special edition of the *Journal of Women's Health* (JWH). The new issue characterizes the increasing problem of maternal morbidity and mortality (MMM) in the United States, suggesting solutions and proposing a research agenda for understanding, treating and preventing maternal health complications.

U.S. women—particularly those from under-represented racial and ethnic populations and those who reside in rural areas—are more likely to die from complications related to pregnancy or childbirth than women in peer nations. Each year, about 700 U.S. women die as a result of pregnancy or delivery complications, and approximately

50 percent of maternal deaths are preventable.

For every pregnancy-related death in the U.S., 70 women experience a “near miss.” Cases of severe maternal morbidity (SMM)—unexpected outcomes of pregnancy, labor or

delivery resulting in serious short- or long-term consequences to a woman's health—have almost doubled over the past decade. SMM affected more than 50,000 U.S. women in 2014.

ORWH associate director Dr. Samia Noursi served as guest editor and, along with NIH colleagues, contributed the introduction. The issue delves into “epidemiological patterns and trends, biological and physiological risk factors, external risk factors, social determinants of health and proven and potential interventions that are poised to be delivered to a broader audience,” stated the authors.

Maternal Health Disparities

Many U.S. subpopulations—including underrepresented racial and ethnic groups, transgender individuals and women of advanced maternal age—have higher rates of MMM due to socioeconomic disadvantages, comorbidities, implicit bias and other factors.

One article discusses how influences on the health

Now Available!

JOURNAL OF
Women's Health

Special Issue on
Maternal Morbidity and Mortality



National Institutes of Health
Office of Research on Women's Health

nih.gov/Women/MaternalHealth

care system—including clinical, behavioral, social, structural and political determinants—and their intersection with race, class and gender contribute to MMM. Another article delves into MMM in American Indian and Alaska Native women, identifying hemorrhage, cardiomyopathies and hypertensive disorders of pregnancy as leading causes of maternal mortality in this population.

Other articles explore implicit bias and its contribution to racial disparities in MMM. One article specifically looks at persistent MMM health disparities among Black women, associated comorbidities and relevant structural inequities within and outside the health care system.

Comorbidities, Additional Considerations

Women with medical conditions predating conception or conditions that emerge during pregnancy experience higher rates of MMM. Several articles discuss how the risk increases as the result of co-occurring conditions such as dysglycemia, physical and cognitive disability, cardiovascular disease, perinatal depression, sleep-disordered breathing and infection.

Other contributing factors to MMM range from environmental factors and dietary supplements during pregnancy to such societal issues as homicide, suicide, drug overdose and intimate partner violence. Also explored are pain management during pregnancy and the problem of MMM around the world.

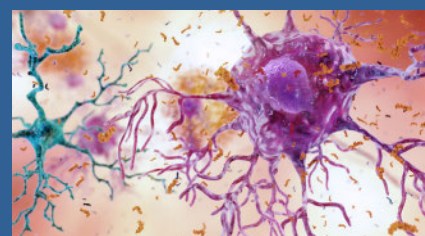
Addressing MMM

To mitigate MMM in the U.S., there are new clinical tools and protocols (or “care bundles”) designed to improve obstetric safety. Another article discusses how existing health information technologies could be leveraged to address health disparities in MMM stemming

from racial, ethnic, socioeconomic and geographic factors.

Noursi and Dr. Michael Lu conclude by proposing a new MMM research agenda for the biomedical community. Lu and Noursi identify four key areas that require further research: factors causing higher risk for MMM in some populations; the long-term effects of pregnancy complications; better safety and quality of maternal care; and the social, structural and environmental determinants of maternal health.

These areas suggest an agenda for the next stages of research and provide a guide to biomedical investigators, policymakers and funding organizations toward addressing MMM. **R**



ON THE COVER: Illustration of brain inflammation from Alzheimer's disease. Research suggests that chronic inflammation may be caused by the buildup of glial cells normally meant to help keep the brain free of debris. Microglia (purple), a type of glial cell, engulfs and destroys waste and toxins in a healthy brain. In Alzheimer's, microglia fail to clear away waste, debris and protein collections, including beta-amyloid plaques. Astrocytes (blue), another type of glial cell, are signaled to help clear the buildup of plaques and other cellular debris left behind. These microglia and astrocytes collect around the neurons but fail to perform their debris-clearing function. In addition, they release chemicals that cause chronic inflammation and further damage the neurons they are meant to protect.

IMAGE: NIA

The NIH Record

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

Associate Editor: Carla Garnett
Carla.Garnett@nih.gov

Staff Writers:

Eric Bock • Eric.Bock@nih.gov
Dana Talesnik • Dana.Talesnik@nih.gov

Subscribe via email:
listserv@list.nih.gov

Follow:
<http://nihrecord.nih.gov/>



The *NIH Record*
is recyclable as
mixed paper.



National Institutes of Health
Turning Discovery Into Health

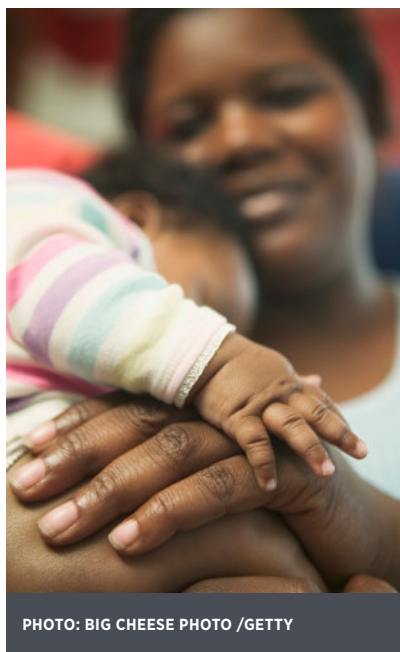


PHOTO: BIG CHEESE PHOTO /GETTY



More than 40 employees of the campus Covid-19 testing car line marked the operation's 1-year anniversary with a ceremony featuring NIH director Dr. Francis Collins (front, c). PHOTOS: CHIA-CHI CHARLIE CHANG

DIRECTOR THANKS CAR-LINE EMPLOYEES ORS's Taylor Lauded for Work Ethic

By Carla Garnett

In a normal year, Rodney Taylor works a regular daily schedule. Like most folks, he takes a vacation here and there and has the occasional day off. Of course, once the novel coronavirus outbreak morphed into a historic worldwide pandemic, 2020 wasn't a normal year for anyone. Taylor, though, took the past year to next-level extraordinary: Staffing the on-campus car line for Covid-19 testing, he has missed only 2 work days since Mar. 18, 2020.

"June 30 and July 6—before you ask, let me tell you about those 2 days," he says, laughing.

On Mar. 17, 2021, NIH director Dr. Francis Collins marked the 1-year

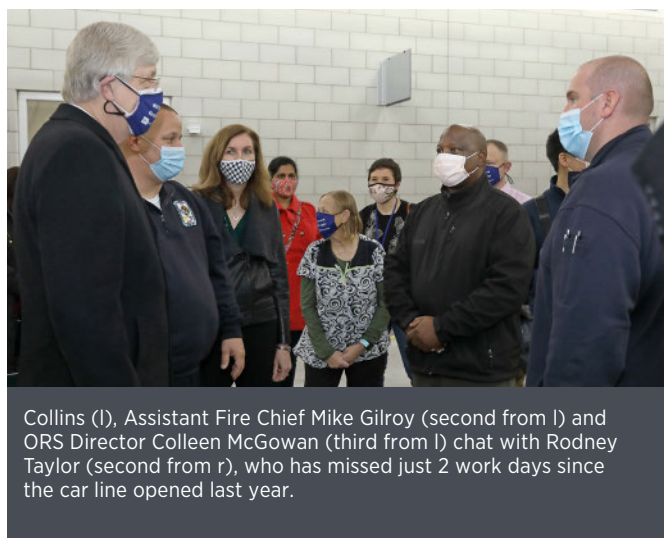
anniversary of the testing operation with an appreciation ceremony at the site.

"What we did, we made contact with everybody who had something to do with it throughout the whole year," Taylor explained. "It was kind of like a reunion."

Some 40 employees converged on the NIH Gateway Center, where the testing operation recently relocated from its original site at the driveway leading to the Lister Hill Center, Bldg. 38A. Workers were praised for their

efficiency, professionalism, dedication and commitment to the goals of the facility, amid unprecedented circumstances.

"Dr. Collins said he just wanted to come and see what the workers do," Taylor recalled. "He actually walked over to each person individually and talked to them and thanked them."

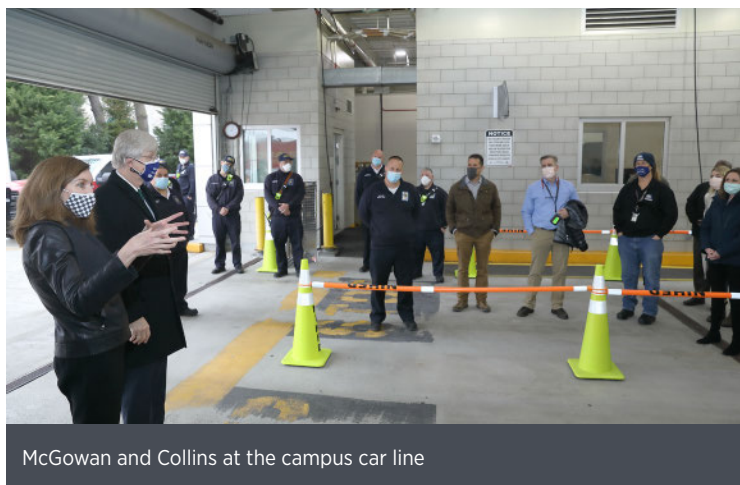


Collins (l), Assistant Fire Chief Mike Gilroy (second from l) and ORS Director Colleen McGowan (third from l) chat with Rodney Taylor (second from r), who has missed just 2 work days since the car line opened last year.

Collins had visited the site previously—but as a client, in his car, to be swabbed for Covid-19. For the anniversary event, he was led on a guided tour of the operation with ORS Director Colleen McGowan and Assistant Fire Chief Mike Gilroy.

Drive-up testing at NIH has run continuously since it was established; from March until Memorial Day weekend 2020, it operated 7 days a week. And Taylor was there for all of it.

"It was like going on a deployment for a whole year," said Taylor, an Armed Forces veteran. "I enjoyed working and I want to say thank you to the health information management team, the [Division of Occupational Health and Safety], the Fire Department and Emergency Management, because those



McGowan and Collins at the campus car line



On the tour with Collins, Gilroy describes aspects of the Covid-19 testing facility and process.

were the four teams put together to make all this happen.”

The testing operation has five general areas: safety, greeters, swabbers, communications and labelers. Taylor’s job doesn’t fit easily into any of those categories.

“I’m the runner,” he explained. Every morning, Taylor checks in at health information management headquarters on the B-1 level of Bldg. 10. There he collects the roster of people signed up to be tested and the swabs, solution vials and other test kit equipment. Then, he heads to the Children’s Inn, where he drops off a portion of the kits designated for inn needs, and finally sets off for the Gateway Center site.

Throughout the day, variations of this route may be repeated several times until, at day’s end, he collects the completed kits for final drop-off at a Clinical Center lab for evaluation.

“Rodney has been so dedicated to anything he does and it really showed up when we asked him if he would help with the symptomatic testing site,” said Tim Tosten, associate director of program and employee services. “His willingness to do anything has been remarkable, and he shows up every day with a smile—no matter what he has to do.”

Before the pandemic, Taylor worked as



Taylor treated the rigorous car-line schedule like a military deployment.

ago in February 2016, he worked for the Department of Defense after retiring from military service in 2006. So, he’s accustomed to complex logistical operations that move at a fast pace.

As for the only 2 work days in the past year that he was not at work? He still came on site.

On June 30, he and several other front-line staff were asked to report for testing themselves; he was swabbed that morning and given the required rest of the day off.

He was back at work the next morning.

By that evening, however, he was told to quarantine for 21 days as his initial test results came up positive for Covid. Testing was halted anyway, for the Independence Day weekend, and Taylor stayed home until Sunday afternoon. That’s when he was called with news that the first results had been contaminated. Would he come in for a new test? After arriving on site for the test July 6 and getting the results that cleared him

for work, he was back on duty July 7. He has not missed another day.

“And I will be there until it’s over,” Taylor declared. “I enjoy the work and it’s all for a good cause. What I was told from day one was, ‘You’ll be on it until this is over with’ and I don’t have a problem with that.” **B**

a program specialist for food and retail in the ORS Division of Amenities and Transportation Services. His group was responsible for monitoring edibles and other items provided in all the cafeterias, snack bars, concession stands and vending machines for the main campus, Rockledge and Fishers Lane buildings in Bethesda as well as NIH’s Bayview facilities in Baltimore.

Before coming to NIH 5 years

NIH DRAIN DISCHARGE GUIDE



CONSIDER BEFORE YOU POUR Consult Guide About Drain Disposal

NIH policy requires that all waste be reduced to the greatest extent feasible to limit potential negative environmental impact. The objective is to dispose of chemicals via waste management services and to prevent hazardous chemical discharges to the sanitary sewer.

With advances in wastewater treatment technology, some people have become overly confident in publicly owned treatment works capabilities to clean the waste released into the sanitary sewers. Despite tech advances, there remain chemicals that may interfere with the treatment process or that pass through the system entirely untreated. This is an ever-growing concern as newly discovered chemicals in the environment (and/or water supply) defy treatment standards. (Read details at <https://www.safewater.org/fact-sheets-1/2017/1/23/emerging-contaminants>.)

The Division of Environmental Protection in NIH’s Office of Research Facilities, in coordination with scientific directors and NIEHS leadership, has developed a *Drain Discharge Guide* to inform staff which chemicals can be disposed of through the sanitary sewer.

Laboratory workers should consult the guide, online at https://nems.nih.gov/Documents/NIH_Drain_Discharge_Guide.pdf, before disposing of any lab chemicals down the drain. Only chemicals approved by DEP may be disposed of down the drain. Surplus solid chemicals must be disposed of through NIH chemical waste services and not discharged down the sanitary sewer.

If you are unsure about a chemical, call DEP, (301) 496-7990 for further guidance. Chemicals not on the approved drain disposal list may be considered via application, <https://spapps.od.nih.gov/sites/DEPAuthorizations/SitePages/Home.aspx>. Direct questions about the guide to DEP.

a good time to pause and take stock of the year's challenges and silver linings, said Deborah Snyder, NIMH's special advisor to the clinical director.

"I don't know many people who have gone untouched by Covid-19," she said. "Pay attention to your mood, thoughts, actions. Figure out what you can, for now, and work on letting go what you can't. Make time for paying attention and expanding your own coping strategies."

She advised employees to acknowledge the professional and personal difficulties of the past year but also reflect upon what got them through.

"Our brains are hard-wired to scan for the negative," she explained. "But, it's just as important to focus on the positive, such as the grit and ingenuity that allowed us to power through."

For Snyder, that means getting back to the basics, connecting to experiential



"We'll remember how we like to connect with each other in person. That joy will come back."

-DR. MARYLAND PAO



sources of meaning, "love, beauty, nature, humor and gratitude."

"It's normal to experience ups and downs—especially during such a challenging year," said Dr. Maryland Pao, NIMH's clinical and deputy scientific director. "People are resilient and find a way to get through," said Pao. "Just look at all the things we accomplished during this time."

NIH was part of the historic and unprecedented effort to develop effective testing and Covid-19 vaccines within a year.

Over the summer, NIH confronted another significant challenge to health: systemic and structural racism. Following the activism after George Floyd's death while in police custody, NIH launched efforts to end structural racism and racial inequities in biomedical research.

"We are reexamining how we behaved

in the past and how we want to be going forward. We are taking a closer look at how we truly make our organization more diverse at all levels, including leadership," said Pao. "We are also reexamining what hospital care looks like."

The pandemic has illustrated the importance of relying on others, when needed. Snyder said social support is a "key ingredient" to psychological and physical health.

Many NIH employees have been working non-stop for months to help fight the pandemic. While these efforts are necessary, they are unsustainable long-term.

"While some NIH'ers have had to, we can't live at a heightened state of readiness all the time," she noted. "You need to take time for yourself, otherwise you're not going to be good to anyone around you. It's important for our physical and mental health."

'A Bit of a Roller Coaster'

There will be permanent changes resulting from the pandemic. "It's hard to imagine that we're

going to go back to what work life looked like in say, February 2020," she said. It's impossible, however, to predict what will become the new normal. A lot of those questions will remain unanswered for a while.

"We're making it up as we go along because no one's ever lived through a pandemic in recent memory before, except for a few in their 100s," said Pao. "People are scared of being around a lot of people, but they're also excited by it. It's going to be a bit of a roller coaster."

Employees who have been teleworking, for example, will have to work with their

supervisors to devise personalized alternative work schedules. Maximum telework has also highlighted the importance of face-to-face communication—especially in a discipline as collaborative as science.

"We have to be ready to experiment within our own offices and be open to doing our own little clinical trials on how our physical spaces and workstations affect our productivity and morale," Snyder said. "We have to be patient with each other, but that is the nature of good collaborative science."

The ground has been quivering underneath us for the last year and it will continue to quiver for a bit more time. "We've got

this. We just have to figure out how to get through the challenging moments, soak up the moments we should be grateful for and focus on doing what we can together," Snyder assured.

Over the next few months, Pao thinks most people will be surprised at how well they handled the past year. "We'll remember how we like to connect with each other in person. That joy will come back."

Preparing to Reenter the World

While months of continued vigilance remain, along with the hope of normal times ahead, we may feel stressed as we psychologically prepare to reconnect and interact more in person—to rejoin the world.

"The social isolation and significant reduction in time spent around other people has significantly impacted children, adolescents and adults," said Dr. Krystal Lewis,

a clinical psychologist at NIMH. So it's only natural that many people will have difficulties adjusting to being back in public—returning to workplaces and schools, going to crowded stores, driving with more traffic, being in close quarters with strangers and just seeing more people out and about.



"We have to be patient with each other, but that is the nature of good collaborative science," says NIMH's Deborah Snyder.



"NIH employees were part of the historic and unprecedented effort to develop effective testing and Covid-19 vaccines within a year," said Pao, shown here with her husband, NIAID's Dr. Steven Holland.

“I would recommend a slow integration back into daily life,” said Lewis. “Gradually increase trips outside the home while

wearing a mask and staying socially distanced to increase comfort around others.” And bring the kids, added Lewis, who specializes in pediatric anxiety. Children also will need practice readjusting to all kinds of public places.

Once vaccinated and comfortable, start getting together with friends and family who are also vaccinated, reacclimating to those in-person gatherings. As the weather gets warmer, we can organize outdoor activities again while waiting for a time when it’s safe to gather indoors around larger crowds.

Recently, Lewis appeared in a brief NIMH video offering additional coping strategies for the months ahead. She recommended

taking mini breaks throughout the day and making time for self-care prior to feeling overwhelmed.

“Keeping a routine is a key piece to maintaining some sense of normalcy,” she said. When feeling anxious, try to focus on what’s in your control. Create schedules and deadlines, but “change your expectations of daily productivity and accept that this is your norm right now...

Pay attention to your physical and mental fatigue...Practice self-compassion.”

Think of the acronym GREAT: find small things each day about which you feel

Grateful; integrate Relaxation into your day; Exercise; Acknowledge your feelings and accept them; Track your thinking.

During challenging times, it’s normal to experience a wide range of emotions—fear, anger, even grief, she said. To help restore a sense of calm, Lewis recommended what she calls disrupting anxiety.

“Once you’re aware of the anxiety, you can do certain things to disrupt the worrying and anxious feelings,” she said. “Challenge anxious or irrational thoughts by reframing your worries...Once you catch yourself experiencing unhelpful thoughts, you can say [to yourself], ‘I’m doing the best I can.’”

And, remember to ask for help. If you’re overwhelmed with anxiety or worry about the prospect of reentering the world, a therapist can offer strategies to better manage the fear.

“Often, when we feel stressed and anxious, it’s because we don’t believe we can handle things,” said Lewis. “However, this is a reminder that we are stronger than we believe, and we can get through this.” **R**



Clinical psychologist Dr. Krystal Lewis speaks about pandemic anxiety for a January 2021 NIMH video, available on YouTube.

NIH Offers Mental Health Resources to Help Employees

While public actions such as physical distancing and mask wearing are critical to slowing the spread of Covid-19, they have caused major disruptions in our day-to-day lives. It can be difficult to cope with fear and anxiety, changing daily routines and the sense of uncertainty.

“Taking care of yourself is really important, particularly this year,” NIMH’s Deborah Snyder said. “Covid was the tip of the iceberg—which highlighted so many other things swirling around including cracks in the health care system, disparities, natural disasters, polarized political discourse. It’s important to be mindful of the impact on one oneself: take your distress temperature.”

If you need support coping with the events of the past year, help is available in several places:

- The NIH Employee Assistance Program (see story, p. 1) offers free, confidential short-term counseling to help employees cope with stress and anxiety related to the pandemic. To make an EAP appointment, call (301) 496-3164.
- The NIH Here to Listen Staff Support Line provides resources for Clinical Center employees seeking emotional support and is staffed by NIMH clinical volunteers trained in Covid-19 disaster response. Call (301) 451-1151. The line will be staffed live through May 31, 2021. Thereafter, callers will be directed to EAP.
- The NIH Office of Intramural Training and Education regularly hosts virtual discussion groups that focus on wellness. For more

information, see www.training.nih.gov/events/upcoming. Trainees and their supervisors can call (301) 496-2427 for counseling and advice.

• ORS’ Division of Amenities and Transportation Services has many tools and programs to assist employees during the Covid-19 pandemic and beyond. These resources include the NIH Child and Family Programs: www.childfamilycare.ors.nih.gov. For more information, see: <https://www.ors.od.nih.gov/pes/dats/wellness/Pages/index.aspx>. To receive regular updates on health and wellness events, subscribe to wellnessnih@list.nih.gov.

• The NIH Coronavirus Intranet page features information and resources to support your mental and physical health: <https://employees.nih.gov/pages/coronavirus/how-to-cope.aspx>.

Snyder and NIMH clinical director Dr. Maryland Pao also present a

virtual “Roadshow on Managing Stress During Covid.” In it, they share strategies and tips and provide information about EAP’s role in enhancing employee productivity and well-being. So far, they have given more than 32 presentations to 5,500 attendees. They’ve recently adapted their presentation to include new material.

“If you’re struggling, reach out to get help, just like you would for any physical symptom,” said Snyder. “Covid has taught all of us that our brain, our mood, our mental health deserve parity.”—**Eric Bock**

transitioning to a telework environment. Most people had their children with them while they were working, so there were obvious parental and family stressors associated with making that transition... EAP also received a lot of calls from employees who live alone and experienced the pandemic challenges all on their own. Many folks have truly missed their colleagues and the meaningful work that brings purpose to our lives."

Those early concerns evolved into a more prolonged grief related to not being able to spend time with loved ones outside of home, she noted. "The loss of connection with their coworkers—that's a profound issue for a lot of folks, that shallowing of relationships that occurs when all you're doing is meeting over the computer or phone. A human-connection breakdown occurred on the professional level as well as the personal level."

The longer maximum telework endured, the more it began to really affect people, said Verschoore, who joined NIH at the beginning of the pandemic. "A depression kind of started setting in after maybe 4 or 5 months... As winter came, we saw a lag in people getting outdoors, fewer getting exercise or doing some of those restorative activities... Then you introduce the vaccine into the picture. We've had a lot of calls from people distressed about 'when am I going to get it?' 'Why did my coworker get it before me?' There's a kind of vaccine envy, vaccine anxiety. 'Am I going to be safe around my family even though I've only had my first immunization?' These kinds of questions became the next phase."

Unfortunately too, "a lot of predictable depressive symptoms have evolved into more severe mental illness states—and some folks have needed hospitalization for significant symptoms—and we've had to work with them [through those issues]," she said. "The reality is that we've had no choice as a culture but to tolerate, to survive what we can't control. It has demanded that we call upon all of our resilience skills. And that's something new,

because a lot of folks are pretty depleted."

Fortunately for NIH, Verschoore also has observed a fairly textbook response to these unprecedented challenges.

"The messages from leadership have been critically important," she said. "'Take care of yourself.' 'Here are services to support you and we're going to give you maximum flexibility so that you can take care of your family and your personal needs while you're still working.' These actions have been critical in supporting the workforce and keeping people on the job."

In the field for 43 years and counting, Linda M. Owen, manager of ORS child and family programs, acknowledged that having to conduct business remotely—during a pandemic—has been extraordinarily challenging.

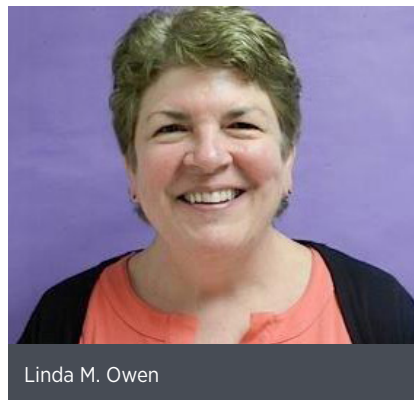
"It's always a full-time job, but it certainly has felt like more of a full-time job over the last year," she said. "Because we've had so many new hurdles to face and also new things to learn. There's been a lot of learning that's been going on, in terms of our operations."

Her team helps people work through a wide variety of practical problems the Covid crisis brought: The need for emergency back-up child-, adult- or self-care; tuition subsidies for lower-income federal employees to help pay for child-care costs; and referrals to the multitude of resources involved in supporting families.

"We've seen a huge spike for one service called the 'parenting coach,'" she noted.

"There was a 77 percent increase [over the last 12 months]... We've heard more from women particularly—scientists as well as administrators—feeling stressed. Winter was tough. We've heard the term '[riding the] corona coaster'?...but, people are reaching out, trying to find answers. I'm sorry they're feeling in such need, because I suspect they're coming from a place of uncertainty, being tired and fatigued and worried."

At the start of this, Owen saw in the workforce a sense of adventure and curiosity that has since become resignation balanced with an abundance of creativity. "Back a year ago, [the lockdowns] felt short-term," she said. "People anticipated that they would all be back to work [in person] by summer."



Linda M. Owen

Management analyst Tonya S. Lee, work-life coordinator of ORS Program and Employee Services, agreed.

"In the beginning, it was how do we adjust to this new work environment, to the needs of our families and our needs. Then midway through, it was mental health. And now we're seeing a shift

to resiliency, and how to deal with burn out, which a lot of us are experiencing."

Lee, who has spent about 30 years in the work-life arena—the last 13 at NIH—has watched work attitudes and atmosphere evolve.

"Through this pandemic what we've had is a significant shift in thinking that these are actually programs that need to be part of the way NIH works," she said. "Even though our services are in very high demand, it's really rewarding to know that our efforts are looked upon as being something that people need... We're able to relate to what the community needs, because we're going through it with them. It's been a great opportunity for NIH to highlight all the programs and services available to its workforce and to have the ability to create new resources."

Recognizing that circumstances and conditions change is vital, Lee pointed out. "Supervisors, check in with your employees on a regular basis. You probably have employees who in the beginning might have had a bag of tricks and were able to adjust. Make sure they're still doing well. It's important to have meaningful interactions with each individual employee, to know what their needs are."

Likewise, she noted, employees can be proactive. "Communicate with your supervisor what your needs are, what you're going through. Resources are available. And, if there's not a program available, or it's not meeting the need, then please reach out to the program managers and let us know."



Tonya S. Lee

COVID 19 PROTECT YOUR MENTAL HEALTH
NATIONAL INSTITUTES OF HEALTH

DURING THE COVID-19 OUTBREAK

*Care for yourself
as you care for others*



You may be feeling anxious, distressed, fearful, angry, depressed, grief, isolated, or unsettled right now. To find relief, try these options:

- Reach out to your support system
- Connect with others socially while physically isolating
- Make time to unwind and take a break from news
- Use practical ways to cope and relax, like deep breathing, finding gratitudes in times of distress, finding grounding in traditions
- Take care of your body! Remember to exercise
- Reach out to a mental health professional

ENGAGE a friend, family member or co-worker
CARE for yourself so you can care for others
REST to refresh your mind and spirit
FOCUS on the positive things and set small, simple goals

ENGAGE/CARE/REST/FOCUS

For free, confidential, and voluntary assistance, please contact the Employee Assistance Program at 301-496-3164



Finally, keep in mind that those in place to offer assistance often may need assistance themselves.

“I think sometimes we lose track of the fact that the helpers are also human beings who have their own needs for recovery,” Verschoore stressed. Helpers are those who provide care and support to others, such as direct care providers, supervisors, mentors or parents, for example. “We are really careful as an EAP team to talk about our own self-care. Peer support is a critical part of staying healthy and strong and available emotionally, physically, spiritually, for the workforce. We encourage each other to practice what we preach.”

Sharing the most difficult problems is crucial among those providing support, she pointed out. Divvying up the burden or simply getting another perspective eases the load.

“We talk about hard cases,” Verschoore concluded. “We’ve had a lot of really hard mental health cases in the last year. Some of them were tragic, actually. And it really affects the helpers. Globally, any helper can have compassion fatigue. So we openly talk about how hard it is—the tragedy of loss and grief and the pain that our employees report to us. That helps us a lot.” 

‘UNDERSTANDING, MODELING AGING’

Stanford’s Brunet Will Present Next Mahoney Lecture, Apr. 7

Dr. Anne Brunet, renowned researcher for transformative discoveries in the field of aging and longevity, will present “Understanding and Modeling Aging” on Wednesday, Apr. 7 at 3 p.m. via NIH videocast. She was originally scheduled to present last year, but the 2020 Florence Mahoney Lecture on Aging was postponed due to the pandemic.

An NIH grantee, Brunet is the Michele and Timothy Barakett professor of genetics and co-director of the Paul F. Glenn Laboratories for the Biology of Aging at Stanford University. She is interested in the molecular mechanisms of aging and longevity, with a particular emphasis on the nervous system.

Focused on understanding aging and rejuvenation, the Brunet lab uses model organisms with diverse lifespans—worms, killifish and mice. Researchers are interested in identifying pathways involved in regulating aging in response to external stimuli, including availability of nutrients.

Scientists also want to understand the mechanisms of brain aging and rejuvenation, focusing on the role of regenerative neural stem cell niches during aging. Brunet will present work on the role of the immune system in brain aging and discuss how her lab pioneered the naturally short-lived African killifish as a new model to identify principles underlying vertebrate aging.

Brunet earned her B.S. degree with honors in biology from Ecole Normale Supérieure (France) and her Ph.D. in biology from the University of Nice (France). In 1997, she moved to the United States to pursue a postdoctoral fellowship at Harvard Medical School and moved to Stanford in 2004. She has received numerous awards including the NIH Director’s Pioneer Award, Bennett J. Cohen Award for Research in Aging and the NIH Director’s Transformative Research Award.

Mahoney lectures are sponsored by the National Institute on Aging and named in honor of Florence Stephenson Mahoney (1899–2002), who devoted much of her life to successfully advocating for the creation of NIA and increased support for NIH.



Dr. Anne Brunet will present the Florence Mahoney Lecture on Aging on Wednesday, Apr. 7. The talk was rescheduled from last year, due to the pandemic.

Virtual Postbac Poster Day Scheduled

NIH Virtual Postbaccalaureate Poster Day 2021 will take place Tuesday, Apr. 27–Thursday, Apr. 29 and will be held on WebEx. There will be more than 120 poster sessions each with 5–7 poster presenters. Sessions will take place over 3 days and are organized into 4 timeslots: 9–10:30 a.m., 11 a.m.–12:30 p.m., 1–2:30 p.m. and 3–4:30 p.m. The event program book and presentation schedule will be available on the event web page by Apr. 9.

Poster Day provides an opportunity for postbacs to share the research they have been conducting at NIH and at the same time develop their scientific communication and networking skills. Posters will be reviewed by teams composed of graduate students, postdocs and staff scientists/clinicians. Authors of the top 20 percent will receive a letter acknowledging their accomplishments. Investigators, staff scientists and scientific administrators can make a particularly important contribution by visiting posters and engaging authors in discussion. For more information, visit www.training.nih.gov/virtual_postbac_poster_day.

Revamped RePORT Simplifies Data Searches

Searching for grants data just got easier. NIH's Office of Extramural Research recently launched a redesigned RePORT (Research Portfolio Online Reporting Tools) that's packed with easy-to-find lists, colorful charts and other handy tools.

Anyone interested in getting a glimpse of NIH expenditures and the results of NIH-supported research will find a wealth of information on the new and improved <https://RePORT.nih.gov>. Whether you're just browsing to get a quick overview or conducting a more specialized search, RePORT is your one-stop shop for reports, data and analyses of NIH research activities.

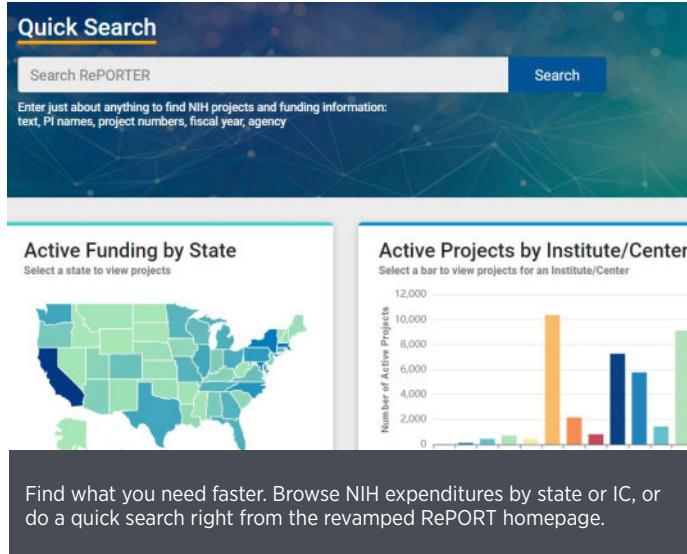
Right on the homepage, you'll find interactive graphs and charts including state map visualizations, funding trends and histograms displaying projects from multiple institutes and centers.

User feedback over the years showed that most searches tended to be for a single investigator, institution or grant number. OER responded by adding a quick search. Now, instead of a cluttered, cumbersome search page, you can do a quick search by keyword, or click on the RePORTER tab at the top to access more search fields. To refine a search, explore the search filters on the left menu.

Other features include:

- **NIH Data Book**, which summarizes answers to frequently asked budget questions. You'll find summary statistics on extramural grants and contract awards, grant applications, the NIH-funded workforce and NIH-supported fellows and trainees. Search and view data subsets such as application success and funding rates and grant awards by institute or center. The data is updated annually; the charts and graphs are exportable.

- **Matchmaker**. Enter abstracts of scientific text to find program officials, ICs, review panels or activity codes to help you connect to NIH staff in your research area.



- **Categorical Spending**. It's now easier to search funding over time for conditions, diseases and other research areas.

- **And the newest feature**, released in February, is a modernized MyRePORTER, allowing users to save searches, configure, update or delete saved searches from a dashboard, and receive alerts for new projects, patents and publications. [R](#)



NIH to Host Panel Discussion on Women in Science, Apr. 8

The Office of Equity, Diversity and Inclusion and NHLBI will co-host a virtual panel discussion about issues facing women scientists on Thursday, Apr. 8. Staff can join the conversation at <https://videocast.nih.gov/watch=41809>.

Panelists will discuss a variety of topics facing women scientists, such as diversity and inclusion, harassment, allyship, bias and stereotyping, mentorship, pay gaps and balancing work and life. The discussion will be tailored to foster meaningful dialogue about cultivating an inclusive and equitable workplace for all.

The panel will follow a week-long NIH-wide virtual screening of the documentary *Picture a Scientist*, which chronicles the experiences of three women who are reshaping the culture of science. To learn more, visit <https://edi.nih.gov/pictureascientist>.

Discovery Channel Airs *The Vaccine: Conquering Covid*

The Discovery Channel recently aired the documentary *The Vaccine: Conquering Covid*, which chronicles the development of Covid-19 vaccines over the past year.

The documentary featured interviews with several members of NIH, including NIH director Dr. Francis Collins, NIAID director Dr. Anthony Fauci, Vaccine Research Center director Dr. John Mascola and VRC coronavirus vaccine lead Dr. Kizzmekia Corbett. Several clinical trial volunteers also share their experiences.

The Vaccine is streaming on discovery+. Visit the website at go.discovery.com/tv-shows/the-vaccine-conquering-covid/full-episodes/the-vaccine-conquering-covid.

FAES Bookstore Reopens

The FAES Bookstore in Bldg. 10 (just down the hall from Masur Auditorium) is now open. FAES welcomes customers back and has worked with ORS's Division of Occupational Health and Safety to implement proper protocols to protect everyone's health while shopping. Safety measures include limiting the total number of shoppers at one time, so be patient as customers are served safely. The store is open weekdays from 10 a.m. to 4 p.m. Customers can also shop online anytime at www.shopfaes.com and choose in-store pickup as an option.



To celebrate reopening, and the incredible work of the NIH community, the store is running several promotions until June.

FAES was founded by NIH scientists in 1959 to provide educational programming and a collegial environment for the biomedical community. If you have questions about FAES retail stores, email faesbookstore@nih.gov or contact retail program manager J.T. Knight-Inglesby. FAES loves customer feedback and suggestions about potential new items, so share your ideas.

Study of Mosquito Protein May Lead to Virus Treatments

The mosquito protein AEG12 strongly inhibits the family of viruses that cause yellow fever, dengue, West Nile and Zika and weakly inhibits coronaviruses. NIH researchers found that AEG12 works by destabilizing the viral envelope, breaking its protective covering. The findings, published online in *PNAS*, could lead



The *Aedes* mosquito can transmit diseases such as chikungunya, dengue and Zika.

PHOTO: NIAID

to therapeutics against life-threatening viruses that afflict millions of people around the world.

NIEHS scientists used x-ray crystallography to solve the structure of AEG12. Senior study author

Dr. Geoffrey Mueller, who heads the NIEHS Nuclear Magnetic Resonance Group, said at the molecular level, AEG12 rips out the lipids, or the fat-like portions of the membrane that hold the virus together.

“It is as if AEG12 is hungry for the lipids that are in the virus membrane, so it gets rid of some of the lipids it has and exchanges them for the ones it really prefers,” Mueller said. “The protein has high affinity for viral lipids and steals them from the virus.”

As a result, Mueller says the AEG12 protein has great killing power over some viruses. While the researchers demonstrated that AEG12 was most effective against flaviviruses—the family of viruses to which Zika, West Nile and others belong—it is possible AEG12 could be effective against SARS-CoV-2, the coronavirus that causes Covid-19. However, it would take years of bioengineering to make AEG12 a viable Covid therapy.

Dr. Alexander Foo, an NIEHS visiting fellow and lead author of the paper, explained that mosquitoes produce AEG12 when they take a blood meal or become infected with flaviviruses. Like humans, mosquitoes mount a vigorous immune response against these viruses, with AEG12 bursting their viral covering.

But early on, Foo and his colleagues knew little about the function of AEG12. “Thankfully,” he said, “we had enough clues and access to a wide range of expertise at NIEHS to piece it together.”

Scientists Use Human Cerebral Organoid to Test Drug for CJD

Two years after establishing a human cerebral organoid system to study Creutzfeldt-Jakob disease (CJD), NIH researchers have further developed the model to screen drugs for potential CJD treatment. The NIAID scientists describe their work in *Scientific Reports*.

Human cerebral organoids are small balls of human brain cells ranging in size from a poppy seed to a pea; scientists use human skin cells to create them. CJD, a fatal neurodegenerative brain disease caused by infectious prion proteins, affects about 1 in 1 million people each year. It can arise spontaneously, result from a hereditary mutation within the prion gene, or arise due to infection, for example, from eating contaminated meat products. There are no preventive or therapeutic treatments for CJD.

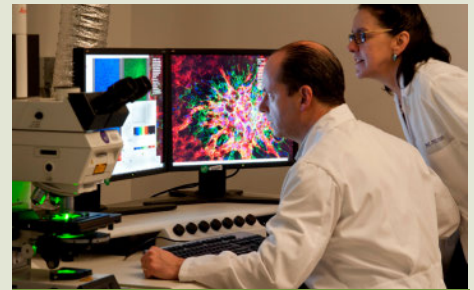
Cerebral organoids are ideal for studying nervous system diseases over long periods of time because they can survive in a controlled environment for months to years. They have been used as models to study Zika virus infection, Alzheimer’s disease and Down syndrome.

The CJD study was conducted at NIAID’s Rocky Mountain Laboratories. Scientists tested pentosan polysulfate (PPS) to determine its potential preventive and therapeutic benefits. In the experiments, PPS treatment reduced the disease indicators by 10-fold or more without causing tissue death. PPS is a benchmark anti-prion compound in laboratory experiments, but it is rarely used clinically because it requires direct administration into the brain.

While it may extend a patient’s life, PPS has not been shown to improve quality of life. However, using the anti-prion properties of PPS with the new human organoid CJD model allowed researchers to assess the value of this model system for drug discovery. The human organoid model can be used to screen compounds that may be useful for preventive treatment as well as screening drugs against established CJD. With this fully human model of disease, scientists are optimistic about identifying compounds that would benefit patients with CJD.

NEI Sets Sights on Better Retinal Imaging

NEI scientists have noninvasively visualized the light-sensing cells in the back of the eye, known as photoreceptors, in greater detail than ever before. The researchers improved imaging resolution by 33 percent by eliminating extraneous light. The results were published in *Optica*.



Two scientists observe ocular tissue samples under a laser scanning microscope.

PHOTO: NEI

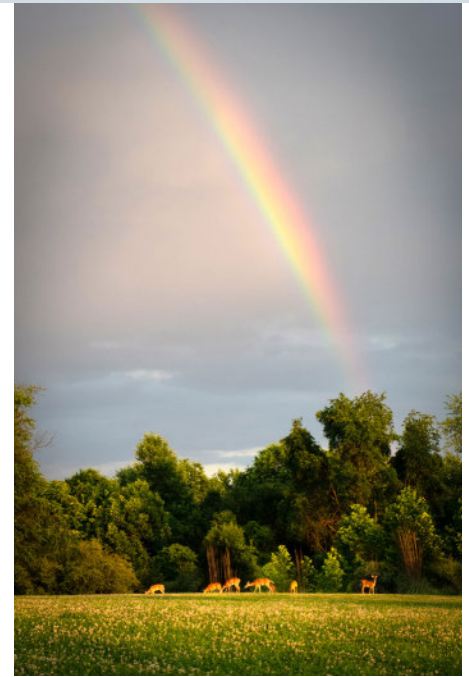
“Better imaging resolution will enable better tracking of degenerative changes that occur in retinal tissue,” said Dr. Johnny Tam, Stadtman Investigator in NEI’s clinical and translational imaging unit. “The goal of our research is to discern disease-related changes at the cellular level over time, possibly enabling much earlier detection of disease.”

Earlier detection would make it possible to treat patients sooner, well before they’ve lost vision. And by detecting cellular changes, clinicians could more quickly determine whether a new therapy is working.

The two types of photoreceptors—cones (color vision) and rods (low-light vision)—vary in size and density across the retina. Cone photoreceptors, while larger than rods, are trickier to visualize when they’re more tightly packed together as they are in the fovea, the region of the retina responsible for the highest level of visual acuity and color discrimination.

Tam’s team at NEI, with help from researchers at Stanford University, sought to push the resolution of adaptive optics retinal imaging. By blocking the light that illuminates the eye in the middle of the beam, to create a ring of light (rather than a disk), the NEI-led team improved the transverse resolution (across the photoreceptor mosaic). But that came at the expense of axial resolution (mosaic depth). To compensate, Tam’s team blocked the light coming back from the eye using a pinhole called a sub-Airy disk, which recovers the axial resolution that would have been lost.

Combining the ring illumination with the sub-Airy disk imaging results makes it much easier to see rods, as well as subcellular details within cones. The achievement is the latest in an evolving strategy to monitor cell changes in retinal tissue that, in turn, will help identify new ways to treat and prevent vision loss from diseases such as age-related macular degeneration, a leading cause of blindness in people age 65 and older.



Past Year, a Time of Learning

Janice Solomon, a lead IT specialist in the NIH Office of the Director, took these photographs in her Maryland neighborhood during spring and early summer 2020, just as we were all coming to grips with the pandemic.

“Pre-Covid, I was involved in many social and photography groups,” she noted for the Office of NIH History’s Behind the Mask project. “During Covid, I’ve still been able to attend many webinars, photo critiques and club meetings, all online. I’ve finally learned how to use Lightroom to edit photos and how to adjust aperture, timing and other settings on my camera rather than using the Auto setting. I’ve had a lot more time at home since I’m not commuting to work or to club get-togethers, so I go walking and taking nature photos several times a week now. I’m much more



aware of the wildlife and nature in my neighborhood, and how the changing of the seasons affects the foliage.”

A little more than 1 year after the worst pandemic in a century, the images seem to reflect resilience.

