National Institutes of Health

SCIENCE STAYS CENTER STAGE

After 50-Plus Years, Gallin Steps into Next Phase

BY CARLA GARNETT

From an early age, John Gallin gravitated toward a career in science. He was five years old when he spied a garnet stone, about the size of a half dollar, on the ground. He's been fascinated with the structure of crystals ever since. Instead of mineralogy and the study of gems, however, it's been medicine and clinical research that captured both his heart and mind. He pursued research in microbiology and clinical research as a medical student at Cornell Medical College (now Weill-Cornell).

On Mar. 25, his 80th birthday, Gallin stepped into a new phase of the career into

which he invested more than a half century: He retired as NIH associate director for clinical research and chief scientific officer of the Clinical Center (CC) in route to designation as a scientist emeritus.

"The bottom line is that for me, it's the patients," he said. "Ask me what's most special about NIH? It's the ability to work with the patients and then have the luxury of doing the science as it relates to trying to make things better for them."

After an internship and residency in internal medicine at NYU-Bellevue Hospital, Gallin first arrived at NIH in 1971 as a clinical associate, to get training in infectious diseases and research in the NIAID laboratory of physician-scientist icon Dr. Sheldon "Shelly" Wolff.

"I fell in love with the clinical research," explained Gallin. "I came to an environment with tremendous mentors and colleagues, who exchanged scientific information and developed lasting friendships. We didn't have



Dr. John Gallin, in a familiar CC locale, steps into a new phase after more than 50 years at NIH.

PHOTO: CHIA-CHI CHARLIE CHANG

to worry about how we were going to get our next dollar to support our research or patient care. We could bring in patients as scientific opportunities arose. We had the Clinical Center where we could provide outstanding core while conducting our clinical research."

care while conducting our clinical research."
In early days at NIH, Gallin encountered

SEE GALLIN. PAGE 6

QUAMMEN VISITS RML

Author Imparts Writing Wisdom

BY AMBER SNYDER

"This could be it," David Quammen warned

readers in a New York Times op-ed in early January 2020. The "it" in question was a new viral coronavirus (thought to have been transmitted from bats) that was spreading rapidly in China. Quammen had predicted this chain of events in his 2012



David Quammen

book *Spillover*, which chronicled his travels interviewing researchers and learning about pathogens that could be transmitted between animals and humans (called zoonotic diseases).



NEI's Dr. Kapil Bharti (second from I) shows Congressman Pete Sessions (second from r) his lab's technique for bioprinting tissues from patient-derived stem cells.

Congressman Sessions Visits

U.S. Rep. Pete Sessions (R-TX) visited NIH Mar. 27 to meet with NEI Director Dr. Michael Chiang and to tour NEI's section on ocular and stem cell translational research, led by Dr. Kapil Bharti. Bharti's lab is pioneering applications for patient-derived stem cells.

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An NIH delegation recently visited Bowie State, the oldest HBCU in Maryland. See p. 3.
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DEIA Prize Competition Announced

NIH has announced the launch of the NIH Institutional Excellence in Diversity, Equity, Inclusion and Accessibility (DEIA) in Biomedical and Behavioral Research Prize Competition, administered by the chief officer for scientific workforce diversity and co-sponsored by UNITE and 24 institutes and centers across NIH.

The prize will recognize and reward biomedical and behavioral science institutions that have identified gaps in DEIA and designed, implemented and evaluated interventions to address them. The competition also aims to identify effective practices for enhancing DEIA among faculty, postdoctoral scholars and student bodies that can be feasibly disseminated for adoption by other institutions.



Visit the website at www.nihdeiaprize.org/ to review eligibility and participation rules and to submit an entry. Deadline to apply is Tuesday, Sept. 26.

Prospective applicants are strongly encouraged to attend the pre-submission webinar on Wednesday, May 17. The webinar will provide an overview of the initiative and address questions about the competition. Submit questions beforehand to: questions@NIHdeiaprize.org.

Research Festival Returns

The NIH Research Festival will take place Sept. 18-20 in the Clinical Center. This will be the first in-person festival since September 2019.

The Festival highlights the diversity of scientific disciplines within the Intramural Research Program. The event's activities give scientists opportunities to build networks with each other and come up with new ideas.

This year's format includes lectures, poster sessions and vendor exhibitions. Details for the festival's return will depend on Covid-19 safety requirements. Plans will be released at https://researchfestival.nih.gov/.

16th Annual NIH Career Symposium

The Office of Intramural Training & Education invites all NIH graduate students and postdoctoral trainees, both basic scientists and clinicians, to participate in the 16th annual NIH Career Symposium, being held virtually on May 8-10.

The symposium provides an opportunity for fellows



Shown (from I) are panel moderator Dr. Donna Shalala, former HHS secretary; Dr. Noubar Afeyan, founder and CEO of Flagship Pioneering; Dr. Pamela B. Davis, of the Center for Community Health Integration at Case Western Reserve University School of Medicine; Dr. Michael Friedlander, vice president of health sciences and technology at Virginia Tech; Heywood Fralin, chair of Retirement Unlimited, Inc.; Dr. Lawrence Tabak, performing the duties of NIH director; Lori Rose Benson, executive director and CEO of Hip Hop Public Health; and Dr. Olajide Williams, founder of Hip Hop Public Health.

PHOTOS: RESEARCH!AMERICA

Tabak Honored at Research! America Event

Dr. Lawrence Tabak, performing the duties of NIH director, recently participated in Research!America's 2023 Advocacy Awards event at the National Academy of Sciences in Washington, D.C. Each year, Research!America honors individuals and organizations whose leadership has advanced the nation's commitment to medical, health and scientific research

Tabak received the 2023 John Edward Porter Legacy Award, which honors the late U.S. congressman from Illinois who was a strong advocate for biomedical research. The award is presented annually to a person who shows an outstanding commitment to sustain the nation's world-class leadership in medical and health research. Tabak is the award's fifth recipient.



At the Mar. 15. event are (from I) Research!America CEO Mary Woolley; Dr. Lawrence Tabak, performing the duties of NIH director; and Ann Lurie, who underwrites the award.

The event featured honorees and moderators in a panel discussion titled "Trust in Science." The session explored the public's perception of research and efforts to bolster confidence in science.

and graduate students to learn about scientific career options and to explore factors that lead to career success.

The multi-day virtual program will include networking sessions highlighting career opportunities available to biomedical scientists. Panel sessions cover academic, government, industry and non-profit career paths. Speakers will provide insights into their careers, their current job and how they got there.

For more information and registration visit: https://bit.lv/41w3QE3

Learn to Sail

Interested in learning how to sail? The NIH Sailing Association basic training sailing course will be offered Tuesday evenings from 7 to 9 through May 23. In-class sessions will be held in person (location to be determined); onboard (on the water) sessions will be held at Selby Bay Sailing Center, on the South River near Edgewater, Md. Participants must be able to provide or arrange for their own transportation to the onboard sessions. Visit http://www.nihsail.org/training for details. If you are interested and would like more info, email: nihsa. basic.training1@gmail.com.



NIH Acting Deputy Director Dr. Tara Schwetz (fifth from I) is accompanied by Associate Deputy Director Dr. Courtney Aklin (eighth from r); Dr. Eddie Billingslea (fifth from r), the small business strategy coordinator at the office of the NIGMS director; Office of Acquisition and Logistics Management Director Diane Frasier (ninth from r), head of NIH contracting activity; and Annette Owens-Scarboro (ninth from I), SBPO program manager and HBCU coordinator.

Schwetz, NIH Delegation Visit Bowie State University

NIH Acting Deputy Director Dr. Tara Schwetz visited Bowie State University earlier this year to get a firsthand look at the nursing and natural life science departments. Several other NIH leaders joined her on the campus tour.

The trip enabled Schwetz and colleagues to assess the school's biomedical capabilities and capacity to pursue federal procurements and grants. NIH has a goal of awarding 2% of all contracts to historically Black colleges and universities (HBCUs).

Bowie State is the oldest HBCU in Maryland and has been developing a relationship with NIH through the Path to Excellence and Innovation (PEI) Initiative, which is administered by the Small Business Program Office.

The PEI initiative provides HBCUs with resources for developing an infrastructure to support and sustain contracting by specifically targeting NIH acquisition opportunities with a focus on biomedical research and other activities central to the NIH mission. The program started as a pilot with six participating HBCUs. Currently, there are 19 institutions in the PEI 2.0 cohort, including Bowie State.

Last year, Bowie State was awarded an IDIQ contract with Leidos Biomedical Research, Inc., which operates the Frederick National Laboratory for Cancer Research. The university also was among five recipients of an NINDS Scientific Research Preparatory Program contract to train and mentor undergraduate students from underrepresented backgrounds and prepare them for biomedical careers.

This was NIH's second visit to Bowie State. In May 2022 NIH Deputy Director for Management Dr. Alfred Johnson took a delegation that included the NIH UNITE committee for extramural research for an introduction to Bowie State's Entrepreneurship Academy. B

Public Service Recognition Week

During the week of May 7-13, NIH leaders are encouraged to set aside time to recognize public servants. It's also a time for everyone to celebrate each other's contributions to NIH's mission.

To show your pride in public service, consider participating in the NIH social media campaign:

 Visit https://hr.nih.gov/about/events/psrw to download and complete the "I love public service because..." template.



• Take a picture and share it to Facebook and/ or Twitter using the hashtags #NIH, #PSRW and #Proud2ServeUSA.

Questions? Email NIHPSRW@nih.gov.



ON THE COVER: Monkeypox Virus. Colorized scanning electron micrograph of mpox virus (red) on the surface of infected VERO E6 cells (green). Image captured at the NIAID Integrated Research Facility in Fort Detrick, Md.

IMAGE: NIAID

The NIH Record

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

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The NIH Record



Quammen

CONTINUED FROM PAGE 1

In 2020, Quammen began work on a new book solely about Covid. The resulting work, *Breathless*, was released in late 2022. Quammen recently stopped by NIAID's Rocky Mountain Laboratories campus to talk about researching this latest book, and to impart some of his best advice about science writing.

Quammen began his writing career as a journalist. He studied the author William Faulkner in graduate school and wrote several novels early on, but Quammen found himself drawn to scientific topics such as ecology and evolutionary biology for his journalistic "beat."

His interest in zoonotic diseases began when he was reporting on Ebola virus for *National Geographic*. The story of that virus, plus other zoonoses around the world, became *Spillover*. The book was well-received by readers and reviewers, Quammen said, but many people were skeptical that a zoonotic disease could pose as large a threat as he was warning.

Then, Covid-19 came along. His agent quickly asked him to write a book on the pandemic and Quammen agreed "after about 5 seconds [of deliberation]." To him, it almost felt like a "duty" because of his experience writing about zoonoses.

He was faced with two significant hurdles: one, his philosophy of "go there" to research and interview scientists in-person would not work with travel restrictions, and, two, he wasn't sure how to tackle a subject that many other people were already writing about. He didn't have answers to those two questions

until December 2020, at which point he began work on the book.

Zoom solved his first problem; he conducted 95 interviews, including talks with big players like NIH's Dr. Anthony Fauci and Dr. Barney Graham as well as "unknowns" (graduate students) in research labs.

To tackle the originality problem, Quammen decided to write about the Covid virus itself, SARS-CoV-2, and the scientists researching it, rather than the public health and political issues it caused. The scientists he interviewed became his "Greek chorus." He spoke to each one for about an hour and a half, often getting up at around 4:30 or 5 a.m. to meet with researchers around the world. When he finished interviewing in June 2021, he had six months to write his book.

"I drink coffee until I go into a trance and then I write," he joked. But, over the course of his career, he has accumulated a list of principles he uses to turn science into page-turning stories:

- The "grab." An author needs to command a reader's attention from the beginning. Whether it is with humor, suspense or some other device, Quammen said, he must convey to readers that his writing is worthy of their time and attention.
- Voice. "People want to hear a human voice [when they read a book]." Voice can be the way the narrator's personality comes across on the page. "[Readers] can tell very quickly if the voice is one they want to spend hours with."
- Story and characters. "People want to read about people," so write about the people who do science and make sure they are fleshed-out, three-dimensional characters

with a narrative arc.

- Suspense and discovery. "Science is full of mysteries—especially zoonotic diseases"—that writers can capitalize on.
- Emotion. Even in science writing there is room for emotion, typically by employing characters. Through characters and the things that happen to them, readers can experience anything from humor and joy to sadness and anger.
 - Structure.



Quammen looks out over Mozambique from the cockpit of a helicopter.

PHOTO: CHARLIE HAMILTON JAMES

Quammen's graduate work on the structure of Faulkner novels paid off in teaching him how to structure his own books. The events shouldn't be too easy to predict, but all of the pieces of the story should "form a whole by the end that makes sense."

- Ending. Quammen prefers to leave some things unresolved at the endings of his books. It might surprise the reader at first, he said, but you should be asking them to keep thinking about what they've learned.
- Figurative language. Readers love devices such as simile and metaphor, Quammen has found, and writers can use figurative language to help readers understand scientific concepts. One common example is the "key in a lock" comparison, in which the spike protein of SARS-CoV-2 acts like a key in the "lock" of receptors on the membranes of human cells.
- Accuracy over precision. When communicating to lay audiences writers may not be able to deliver as much precision as scientists do in journal papers, but accuracy should still be conveyed in a way that is understandable.

Quammen used all of these techniques in his latest work. He wanted *Breathless* to deliver an important message about science itself: "That science is a human process of incremental progress...and sometimes we make mistakes."

Low scientific literacy among the general public allows misinformation to spread more easily and decreases public confidence in the scientific process. Clear scientific communication is essential to restoring public confidence.

As a lay author who has published several acclaimed scientific titles, Quammen hinted at how he has attained a high level of scientific literacy.

"I'm not a scientist," he said. "Just someone who listens." **B**





UW's Walters Selected to Lead Tribal **Health Research Office**

Dr. Karina Walters, an enrolled member of the Choctaw Nation of Oklahoma, has been named director of NIH's Tribal Health Research

Office (THRO). She succeeds Dr. David Wilson, who is on assignment to the White House Council on Native American Affairs. Walters began her new role as THRO director on Apr. 24.

A social epidemiology and health prevention scholar, she currently is a tenured full professor and the Katherine Hall Chambers scholar at the University of Washington (UW) School of Social Work. She also serves as an adjunct professor in the department of global health and the School of Public Health and is the founding director of the UW Indigenous Wellness Research Institute.



Dr. Karina Walters

Prior to her current positions,

Walters served from 2012 to 2019 as associate dean for research at UW School of Social Work, overseeing and assisting faculty in generating \$20 million to \$30 million in grants annually.

Walters will work to advance initiatives to ensure tribally informed biomedical and behavioral research, enhance NIH's tribal consultation and tribal engagement efforts and coordinate American Indian/ Alaska Native (AI/AN) research and research-related activities across NIH and with other federal entities.

She has more than 28 years of AI/AN health research experience, encompassing foundational science, disease prevention, health promotion and intervention research. She has conducted social epidemiological research on the environmental, historical, social and cultural determinants of health and health equity in AI/AN communities as well as designed and empirically tested, tribally derived chronic disease prevention interventions.

"[Dr. Walters's] wealth of experience and deep commitment to engaging tribal leadership in health research efforts makes her ideally suited for the position," noted Dr. Lawrence Tabak, performing the duties of NIH director, announcing the appointment, "Her commitment to community-based participatory research is evident in her demonstrated ability to sustain collaborations with diverse Native communities and conduct successful randomized clinical trials in tribal communities."

Much of Walters's early social epidemiological research involved LGBT. Two Spirit and urban AI/AN populations across the United States. Additionally, she has conducted tribal-based intervention research in the areas of substance use disorders, obesity prevention and physical activity promotion, diabetes and depression, and HIV prevention.

Walters has served as principal investigator or co-investigator on 35 awards from multiple NIH institutes.

She is the first American Indian fellow inducted into the American Academy of Social Welfare and Social Work.

Walters earned a bachelor's degree in sociology and an M.S.W. and a Ph.D. in social welfare, all from the University of California, Los Angeles.

EARLY-STAGE INVESTIGATOR LECTURES

ODP Recognizes Three Promising Researchers

The Office of Disease Prevention (ODP) will host three 2023 Early-Stage Investigator Lectures (ESILs) with Drs. Lilah Besser, Justin Echouffo Tcheugui and Rodrigo Carrillo-Larco. Their presentations will take place via Zoom at 11 a.m. ET on May 3, May 10 and June 7.

The lectures recognize early-career prevention scientists who are poised to become future leaders in prevention research. For more information, visit prevention.nih.gov/ESIL.

Besser will speak on May 3. Her presentation, "Structural and Social Determinants of Brain Health and Alzheimer's Disease and Related Dementias." will discuss the connection between structural and social determinants of health (a multitude of factors in the environments in which we live, learn, work, play and worship) and brain health.

Besser is a research assistant professor in the department of neurology, Comprehensive Center for Brain Health at University of Miami Miller School of Medicine. Her work has been funded by the National Institute on Aging (NIA).



Dr. Lilah Besser

On May 10, Echouffo Tcheugui will discuss "Type

2 Diabetes and Cardiovascular Disease: A Focus on Heart Failure." He will use the example of heart failure to illustrate the critical importance of cardiovascular disease prevention in the setting of type 2

diabetes.

Echouffo Tcheugui is an associate director for student and resident education in the division of endocrinology, diabetes and metabolism, and an associate professor of medicine at Johns Hopkins University School of Medicine. His work has been funded by the National Heart, Lung and Blood Institute (NHLBI).

The final lecture will take place on June 7. Carrillo-Larco will give his presentation, "Cardiometabolic Health and Cardiovascular Prevention in Latino Population." He will describe

Dr. Justin Echouffo Tcheugui

selected features of cardiometa-

bolic epidemiology for Hispanics, global and international comparisons, as well as recent advances and opportunities for risk-based prevention of noncommunicable diseases.

Carrillo-Larco is an associate academic research scientist in the Hubert department of global health at Emory University's Rollins School of Public Health. His work has been supported by NIA and NHLBI.

Registration is required for each lecture. Use this link: https://bit.ly/3MNuvIH. Lectures will be recorded and available on ODP's website approximately two weeks after each session.



Dr. Rodrigo Carrillo-Larco





In 2005, then-Clinical Center director Gallin (r) greets Marcos Arrieta of El Paso, Tex., the first pediatric patient to move into the Hatfield Center. At right, President Bill Clinton pays the CC a call in 1995; Gallin (r) along with best friend then-NIAID Director Dr. Anthony Fauci led the president's tour of the hospital.

Gallin

CONTINUED FROM PAGE 1

the fellow physician-scientist who would become one of his closest associates—retired NIAID director and President Biden's former chief medical advisor Dr. Anthony S. Fauci. They first met outside their respective labs in the Clinical Center and became not only scientific colleagues and confidantes, but also best friends away from NIH.

"There are so many happy moments that I associate with my 51-year friendship with John Gallin," said Fauci. "One is that for as long as I can remember, every year my wife Christine and I shared a quiet New Year's Eve dinner with John and Elaine where we would reflect on the accomplishments and challenges of the prior year and our hopes for the coming year. Another is when John and I go fishing together—too infrequently. He almost invariably catches more fish than I do...One time, I hooked what was probably a rather large fish and I yanked the pole so hard that I tipped over our canoe and we both found ourselves swimming in the Potomac River."

After three years of training, Gallin left NIH in 1974. He'd been named senior chief medical resident at Bellevue Hospital at New York University. In 1975, he promptly returned to NIH for good. Over the course of

NIAID scientists (from I) Dr. Harry Malech, Gallin and Dr. Steven Holland in an NIH laboratory in 1996

er the course of five decades here, he's seen remarkable breakthroughs in clinical research, particularly in his own field of study.

"Advances in immunology and understanding how the immune system works to defend us against infections have been dramatic, resulting in the vaccines that you've heard about—most recently, the Covid vaccine, but before that, the Ebola vaccine, and improvements in other vaccines," he observed. "Another big advance—the ability to modulate the immune response against diseases that cause inflammation, like auto-

immune diseases, has been nothing short of dramatic over 50 years, enabling patients to live better lives...helping us to understand new diseases."

Science itself and the biomedical research enterprise have evolved in that time as well.

"When I started my clinical research at NIH, Shelly Wolff suggested I focus on patients with disorders of phagocytic cells—neutrophils and monocytes," Gallin pointed out. "We defined the clinical phenotype and molecular abnormalities in these patients. Our group described new

molecular deficiencies in chronic granulomatous disease of childhood (CGD), but also discovered IRAK deficiency, neutrophil-specific granule deficiency, the molecular basis for the lazy leukocyte syndrome—an actin dysfunction disease—and Job's syndrome of hyper IgE and recurrent infections. Being able to understand the genetics of diseases, which came later, is just a huge advance...the biochemistry of the diseases and understanding exactly what molecules are abnormal. Then, designing interventions based on the scientific knowledge, including bone marrow transplantation and gene therapy, has resulted in clinical cure of some patients.

"In science today," he continued, "when somebody comes in the lab as a young person, they can get a very clean, specific answer to a question at a very precise level, much more finely

tuned than we could before. And that's wonderful, because then you can think about interventions."

Dr. Maureen Gormley, former NINDS deputy director for management, met Gallin in the early 1990s when she was a CC assistant hospital administrator and he was NIAID scientific director. She became his special assistant when he was appointed CC

director.

"He helped my career flourish," she recalled. "Dr. Gallin is a highly disciplined, hard-working and visionary physicianscientist. His leadership inspired me and our whole team to fully commit ourselves and always look for ways to improve the hospital for patients and investigators. [He] also is a caring mentor who invests significant effort in developing the careers of all members of his team."

In a 50-plus year NIH career, Gallin has served as NIAID lab chief and scientific

director for nine years; CC director for 22 years and for the last six years CC chief scientific officer; and for 28 years NIH associate director for clinical research.

At 22 years, his directorship of the Clinical Center is the longest in NIH history. Of course, there were challenges as well as triumphs. Funding, staffing and oversight were all examined thoroughly by insiders and outsiders, with Gallin steering



With Gallin at the "Minerals in Medicine" exhibit in 2016 are Smithsonian geologist Dr. Michael A. Wise (above) and Smithsonian mineralogist Dr. Jeff Post.

PHOTOS: ERNIE BRANSON (TOP), ANDREW PROPP







At left, Gallin (second from I) gathers in 2008 with the other Undiagnosed Diseases Program honchos Dr. William Gahl (I) and Dr. Stephen Groft, and Amanda Young, who benefited from the program. At right in 2023, Young's husband William Sigley (I) joins her at Gallin's retirement event.

the largest research hospital in the world through storms and calm waters.

Some of his proudest achievements include creating the Patient Advisory Group; helping to construct the first Clinical Research Information System and Biomedical Translational Research Information System that combine patient information into a common database that

students a year and over 160 countries throughout the world," he said. "To watch that grow and to see some of its impact has been very satisfying."

Gormley noted, "Over the 22 years we worked together, Dr. Gallin led the Clinical Center through countless remarkable events

including the planning and activation of the new Clinical Research Center, the creation and opening of the Safra Family Lodge, construction of a dedicated campus entrance for patients and installation of modern electronic medical record and integrated patient scheduling systems. He ran command centers in response to furloughs, floods, fires and blizzards. He hosted presidents, politiwill be long remembered." Clinical Center CEO Dr. James Gilman, who succeeded Gallin at the CC helm, agreed, "As one might expect from someone

blend of humility and humanity. His legacy

with my military background, I am very much unaccustomed to seeing organizations thrive under the same leader for 22 years as the CC did under Dr. Gallin's leadership. I felt that way when I arrived on the scene in 2017. If anything, I am more amazed at his achievements now than I was then."



In the last few years in his post in Bldg. 1, Gallin was able to take a bird's-eye view of NIH's clinical research enterprise. He helped build the scientific review process for all clinical protocols and expanded data sharing through clinicaltrials.gov. He made data sharing plans a requirement in the clinical protocol scientific review process he developed.

In essence, the enchantment with crvstallography that started Gallin's scientific pursuits never faded. In fact, he managed to combine his love of minerals with his day job. In 2016, he orchestrated a collaboration with the Smithsonian Institution that installed a "Minerals in Medicine" exhibit in a corridor. of the Clinical Research Center. The installment is now permanent.

As he began life as a retiree, Gallin recommended that his successor focus on inspiring and nurturing would-be investigators of the next age. And he's ready to help, because he fondly recalls that 5-year-old who picked up a shiny rock and followed a path of discovery ever after.

"We need to be very sensitive to young people," he concluded. "We have to make sure we have an environment that cultivates the next generation of scientists and clinical investigators, so that it's optimal for them to succeed." B

"...What's most special about NIH? It's the ability to work with the patients..."

~DR. JOHN GALLIN

scientists can access; and building the first bioethics department, which Gallin said "has really flourished."

He and his CC team were also instrumental in opening the doors of the Clinical Center to the extramural community. They created "Bench to Bedside and Back Awards" and other mechanisms to usher projects between basic science and clinical activity.

In addition, he focused on education and training in his tenure as CC leader.

"We built a curriculum in clinical research that started as a seminar with 15 students and today is reaching 25,000 cians, world leaders and entertainers. In 2011 he accepted the Lasker Bloomberg Public Service Award on behalf of the generations of clinical researchers who contributed to the legacy of accomplishments at the Clinical Center.

"One of the most significant memories I have of his leadership was his steadfast focus on the patients, their care, their safety and the ways in which he developed services, like a huge reception desk at the entrance of the Clinical Center to make them feel welcome and to ease their fears," Gormley continued. "Dr. Gallin's leadership style is a seasoned



Among family and friends wishing Gallin well at an Apr. 6 retirement event are (from I) longtime CC scientist and Nobel laureate Dr. Harvey Alter, Dr. Elaine Gallin and grandchildren Nathaniel Dwyer, Mitchell (Mick) Dwyer and Miriam (Mira) Dwyer, Gallin, Fauci, Alice Gallin-Dwyer and Stephen Dwyer.

2023 PHOTOS: CHIA-CHI CHARLIE CHANG



Staff scientist Dr. Ruchi Sharma (r) of NEI's ocular stem cell and translational research section (OSCTRS) explains the process for making patient-derived retinal pigment epithelium (RPE). Shown observing are (from I) NEI Director Dr. Michael Chiang; Sessions; Dr. Neena Haider of Harvard University; Bharti; and Jair Montford, OSCTRS cell culture technician. The RPE supports and nourishes the retina's light-sensing photoreceptors. RPE dysfunction is implicated in a variety of blinding diseases including age-related macular degeneration.

PHOTOS: DUSTIN HAYS/NEI

Sessions

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Sessions sparked the 2017 NEI 3D Retina Organoid Challenge, a prize competition to develop systems for making tissues that closely resemble the eye's light-sensing retina.

"Regenerative medicine has made remarkable strides over the past decade, due

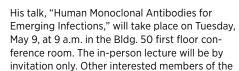
in no small part to our federal investment in stem cell research," Chiang said.

In 2007, Japanese scientists led by Dr. Shinya Yamanaka first reported a method to induce mature human cells into a state of pluripotency—the ability to turn into nearly any cell in the body. The discovery won Yamanaka a Nobel Prize and opened a flood of research into induced pluripotent stem

(iPS) cells.

In 2020, less than 15 years after Yamanaka's discovery—Bharti and his NEI collaborators launched a clinical trial of patient-derived retinal tissue to treat age-related macular degeneration (AMD)—one of the most common causes of blindness among older Americans.

Bharti's group is also developing iPS cell-derived tissue models with techniques such as bioprinting to study disease and screen for new drugs for AMD and inherited degenerative eye diseases such as retinitis pigmentosa.



Crowe To Deliver 2023 Chanock

Human monoclonal antibodies are powerful tools both for defining protective antigens for vaccine development, as well as serving as therapeutics for prevention or treatment of infectious pathogens. A world-renowned immunologist and pioneer in this field, Dr. James Earl Crowe, Jr., will deliver this year's NIAID Robert M. Chanock Memorial Lecture.

NIH community are welcome to join remotely at https://nih.zoomgov.

Crowe, with over three decades of experience in viral immunology research, serves as director of the Vanderbilt Vaccine Center and is the Ann Scott Carell professor of pediatrics, pathology, microbiology and

com/j/1619775377.

Lecture



Dr. James Earl Crowe, Jr.

immunology at Vanderbilt University Medical Center.

His laboratory develops innovative technologies for the isolation and study of human monoclonal antibodies. Using a broad array of techniques such as molecular and cellular biology and state-of-the-art imaging and flow cytometry, his group has produced novel monoclonal antibodies to a wide variety of human pathogens, including emerging infections such as Covid-19.

In his lecture, Crowe will talk about advances in human monoclonal antibody development that may enable new approaches to pandemic readiness. He will discuss using single B cell technology to identify antiviral human monoclonal antibodies, review structure-based strategies for determining the mechanism of action of the most potent antibodies, and review new strategies for the rational development of synergistic antibody combinations to increase their therapeutic efficacy.

Crowe is an Institute for Scientific Information highly cited researcher, has received numerous investigator awards including the Golden Goose Award and the 2023 Research! America Building the Foundation Award and is an elected member of the National Academy of Medicine and National Academy of Inventors.

As a postdoctoral fellow at NIH from 1990 to 1995, Crowe trained with Chanock, who served as chief of the NIAID Laboratory of Infectious Diseases for more than three decades. The memorial lecture series honors Chanock, who died in 2010.



At the CRC entrance are (from I) Sessions, Chiang, Haider and NIH Acting Principal Deputy Director Dr. Tara Schwetz.



OSU's Doubeni To Give NCI Seminar, May 4

Dr. Chyke Doubeni will present the next lecture in the NCI Center to Reduce Cancer Health Disparities' (CRCHD) Continuing Umbrella of Research Experiences (CURE) Distinguished Scholars Seminar (DSS) Series on Thursday, May 4 from 1 to 2:30 p.m. ET via WebEx. His talk is titled, "Health Equity Requires More than the Sum of the Parts: The Colorectal Cancer Model."



Doubeni will discuss:

- His academic journey through CURE and beyond
- Evidence of key elements for eliminating disparities in mortality from colorectal cancer
- The journey of gaining awareness of health inequities ("common sense is not common")
- How lessons about drivers and solutions across the care continuum can be applied broadly to advance cancer health equities

A former CURE K01 scholar, Doubeni is chief health equity officer and professor in the department of family and community medicine at the Ohio State University (OSU) Wexner Medical Center. He also serves as associate director for diversity, equity and inclusion for the OSU Comprehensive Cancer Center-Arthur G. James Cancer Hospital and Richard J. Solove Research Institute.

Doubeni leads OSU's efforts to address the underlying drivers of health care disparities and foster more equitable care and health outcomes. He spearheads the strategic direction of Wexner Medical Center's health equity and healthy community initiatives in collaboration with leaders, faculty, staff and learners. He brings together diversity, equity and inclusion, anti-racism and civic and community engagement efforts.

Doubeni also collaborates with the Office of Academic Affairs (OAA). He is a leader in the RAISE initiative, which recruits new faculty who have a research focus on health equity topics. He works with the OAA and the health science colleges on development and implementation of a new Center for Health Equity.

Nationally recognized for his work in cancer prevention and public health, Doubeni is a member of NCI's board of scientific advisors and a section editor for Gastroenterology. In 2021, he served as lead author for a report "Addressing Systemic Racism Through Clinical Preventive Service Recommendations from the U.S. Preventive Services Task Force," published in JAMA.

Doubeni earned a 2010 Presidential Early-Career Award for Scientists and Engineers for accomplishments in research, mentoring and community service and in 2019, the Sadie Gerson Distinguished Scholar Award from the University of Pittsburgh.

CURE supports individuals from underrepresented groups across the academic continuum—beginning with middle school students and continuing through independent cancer researchers—through a pipeline of research funding opportunities. The DSS series recognizes outstanding former CURE scholars and their research. The scientific seminars highlight leading-edge cancer health disparities research, along with new advances, ideas and trends in the field.

To register for the seminar, visit: https://bit.ly/3KIzR53. Individuals who need reasonable accommodation to participate, email victoria.coan@nih. gov at least five business days before the event.

Yamashita To Deliver 2023 Pittman Lecture

Dr. Yukiko Yamashita of MIT and the Whitehead Institute will deliver the annual Margaret Pittman Lecture titled "Unexpected Mechanisms of Germline Immortality" on May 3 at 2 p.m. ET.

This lecture will be held in person in Lipsett Amphitheater, Bldg. 10, and online at https:// videocast.nih.gov/watch=46077.

Yamashita, a past MacArthur fellow, is the inaugural incumbent of the Susan Lindquist chair for women in science at Whitehead Institute. She is known for her studies of two fundamental aspects of multicellular organisms: how cell fates are diversified via asymmetric cell division and how genetic information is transmitted through generations via the germline.

She studies these processes using the Drosophila male germline and recently has embarked into a new area of inquiry, the functions of satellite DNA-so-called "genomic junk"—and how this might be involved in speciation.



The lecture, part of the Wednesday Afternoon Lecture Series (WALS), honors the legacy of Pittman, the first female laboratory chief at NIH. Continuing medical education credits will be available. More information about WALS is posted at https:// oir.nih.gov/wals.-Diana Gomez

All of Us Mobile Unit on Campus

You may have heard about the All of Us Research Program, but you may not know much about it. The program aims to build the largest, most diverse health database of its kind. To do that, All of Us has an ambitious goal of recruiting and retaining at least a million participants over the course of 10 years.

NIH staff members and campus visitors will have the chance to learn more about All of Us May 8-12, when the program's traveling educational exhibit, the Journey, will be on the Bethesda campus. The mobile unit will be parked in front of the Natcher Conference Center (Bldg. 45) and behind the Clinical Center's south parking lot (10H) during this time. Visitors will have an opportunity to check out the Journey's interactive stations and sign up to join the program.

Throughout the course of their experience, All of Us participants are asked to give biosamples (blood, saliva, urine), share health information through electronic health records and wearable devices, and answer surveys. In turn, researchers conduct their own studies using the data that participants have generously contributed. The hope is that researchers will advance medical breakthroughs, enabling individualized prevention, treatment and care.

Part of what makes All of Us unique is about 80% of its participants represent communities that have been historically underrepresented in medical research, including rural populations, people with disabilities, LGBTQIA+ communities, and those with lower levels of education and income. Almost 50% identify with a racial or ethnic minority group.

The program's mobile exhibit has been an important vehicle for reaching these diverse populations. The Journey partners with trusted community organizations in regions across the country that don't have easy access to an All of Us enrollment center.

Interested in learning more? Stop by and talk to program staff during the on-campus event. You can enroll ahead of time at https://allofus.nih.gov/atNIH. After enrollment, you can schedule an appointment to provide biospecimens at the event by calling (844) 842-2855.





Dr. Maureen M. Goodenow and Dr. Bill Kapogiannis

Leadership Transitions at OAR

Leadership at the NIH Office of AIDS Research (OAR) has changed hands: Dr. Maureen M. Goodenow moved from her positions as NIH associate director for AIDS research and OAR director to a new role as senior advisor in the NIH Office of the Director.

Dr. Bill Kapogiannis, an NIH leader in HIV research for nearly 18 years, will serve as acting NIH associate director of AIDS research and acting OAR director while a nationwide search for a new director is conducted.

Goodenow led OAR for nearly seven years and is the first woman to serve in the position since its establishment in 1988. She coordinated an HIV research budget increase of more than \$250 million over the last five years, bringing the total NIH HIV research funding to more than \$3.2 billion in fiscal year (FY) 2023. She also developed and implemented a five-year NIH Strategic Plan for HIV and HIV-Related Research FY 2021-2025 and helped NIH garner recognition of the importance of HIV research in the National HIV/AIDS Strategy 2022-2025 by working with the White House Office of National AIDS Policy.

Goodenow will continue to serve as chief of the molecular HIV and host interactions section at the National Institute of Allergy and Infectious Diseases. The section focuses on the molecular virology and immunology of HIV infection in youth and pediatrics and the modulation of HIV-associated inflammation by substance use.

Kapogiannis joins OAR from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), where he led the Adolescent Medicine Trials Network for HIV/AIDS Interventions. That multicenter U.S.-based research program evaluates interventions for treatment and management of HIV infection and its complications among youth, as well as for the prevention of HIV transmission in the adolescent population, including HIV vaccine, microbicide, and pre-exposure prophylaxis (PrEP) studies.

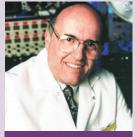
At NICHD, Kapogiannis served as scientific director of the Prevention and Treatment through a Comprehensive Care Continuum

for HIV-Affected Adolescents in Resource-Constrained Settings Consortium, which is researching optimal strategies to identify youth at risk of HIV infection and those

living with HIV, and to enroll them into medical care programs across sub-Saharan Africa and in Brazil to improve their health outcomes. Kapogiannis directed the NIH RADx-rad PreVAIL kIds Program, which is developing cutting-edge approaches for understanding factors influencing the spectrum of conditions in children infected with SARS-CoV-2.

A board-certified infectious disease specialist in pediatrics and internal medicine, he earned his M.D. from the University of Illinois at Chicago College of Medicine, where he completed his residency in internal medicine/pediatrics. He completed a combined fellowship in infectious diseases in internal medicine and pediatrics at Emory University School of Medicine in Atlanta.

Pain Researcher, Former NIDCR Branch Chief Dubner Mourned



Dr. Ronald Dubner

Former NIH intramural investigator Dr. Ronald Dubner died on Jan. 22 in Rockville, Md. He was 88 years old.

A pioneer in pain research, Dubner made discoveries over four decades that significantly enhanced knowledge of the underlying mechanisms of acute and chronic pain. He worked at the National Institute of Dental Research (now known as the National Institute of Dental and Craniofacial Research) for 36 years, beginning as an intern in 1959 before becoming a research scientist, section chief, and then lab chief with the Neurobiology and Anesthesiology Branch. He then left NIH in 1995 to become professor and chair of the department of neural and pain sciences at the University of Maryland School of Dentistry. He was editor in chief of the journal PAIN

Those who worked with him at NIDR remarked on his strong leadership, passion for his work and willingness to offer support and advice to colleagues. Beyond his own research on pain, he is remembered for mentoring a host of scientists who have continued to explore and expand on his findings.

Dubner was born in Brooklyn, N.Y, in 1934 and received his B.A and D.D.S from Columbia University. In 1964, he completed a Ph.D. in physiology at the University of Michigan. He is survived by his wife, three children and five grandchildren.—Michael Somes

Biochemist Schiffman Remembered

Dr. Elliott Schiffman, an NIH intramural biochemist who made major discoveries in cancer immunotherapy, died at his home in Chevy Chase, Md., on Dec. 31. He was 95.

Schiffman had a long career at NIH, starting with the National Heart Institute (now the National Heart, Lung and Blood Institute) in 1955. In 1962, he moved to the National Institute of Dental Research (NIDR, now NIDCR). From 1985 to 1990, he worked at the National Cancer Institute.

While at NIH, he demonstrated how hemin is synthesized in the body, and he identified attractants that draw inflammatory cells to attack invading bacteria. He won a Director's Award at NIDR for showing that attaching an antibiotic to these attractants hastened the end of an infection.

Schiffman is remembered for his mentorship of young scientists, his kindness and his great sense of humor.



Dr. Elliott Schiffman

He was born in 1927 in Newark, N.J. He received his B.S. from Yale University in 1948 and his Ph.D. from Columbia University in 1955. He is survived by his wife Genevieve.—Michael Somes

Daily Statin Reduces Risk of Cardiovascular Disease in People Living with HIV

An NIH clinical trial was stopped early because a daily statin medication was found to reduce the increased risk of cardiovascular disease among people living with HIV in the first large-scale clinical study to test a primary cardiovascular prevention strategy in this population.

A planned interim analysis of data from the Randomized Trial to Prevent Vascular Events in HIV (REPRIEVE) study found that participants who took pitavastatin calcium, a daily statin, lowered their risk of major adverse cardiovascular events by 35% compared with those receiving a placebo. Adverse drug events observed in the study were like those in the general population taking statin therapy.

The interim analysis was sufficiently compelling that the study's independent Data Safety and Monitoring Board recommended it be stopped early given adequate evidence of efficacy. NIH accepted the recommendations.

REPRIEVE began in 2015 and enrolled 7,769 volunteers who were 40 to 75 years of age, of whom more than 30% were women. REPRIEVE volunteers were all taking antiretroviral therapy, with CD4+ cell counts greater than 100 cells/mm3 of blood at enrollment, and had low-to-moderate traditional cardiovascular disease risk that would not typically be considered for statin treatment. The trial was conducted in 12 countries in Asia, Europe, North America, South America and Africa.

REPRIEVE is primarily supported by NIAID and NHLBI with additional funding from the Office of AIDS Research. The study was conducted by the AIDS Clinical Trials Group.

Therapy for Rare Bone Disorder Shows Promise

A clinical trial at NIH found that a medication, denosumab, significantly reduced abnormal bone turnover in adults with fibrous dysplasia, a rare disease marked by weak and misshapen bones. Bone turnover, a process in which old bone is continuously replaced with new bone, is unusually

Bone scans of a patient before (I) and after a six-month denosumab treatment show reduced turnover within fibrous dysplasia lesions (dark-colored patches).

PHOTO: ALISON BOYCE/NIDCR

accelerated in fibrous dysplasia and contributes to bone abnormalities.

The study of eight participants was carried out by researchers from NIDCR and the Clinical Center.
Results, which showed that denosumab may improve patients' quality of life by enabling healthy bone formation, were published as a correspondence report in the New England Journal of Medicine.

Fibrous dysplasia stems from gene mutations that cause scar-like (fibrous) tissue to replace healthy bone starting in early childhood. These fibrous lesions—marked by

accelerated bone turnover—weaken bones, leading to bone deformities, fractures, physical disabilities and pain. In some cases, the lesions can press up against organs and nerves, impairing functions like vision and breathing.

"Surgery is still the standard treatment for fractures and deformities caused by fibrous dysplasia," said senior author Dr. Alison Boyce, a

clinical investigator at NIDCR. "Denosumab is the first medication that appears to affect how fibrous dysplasia lesions behave and improves patients' disease outcomes."

Increased Use of Telehealth Services, Medications for Opioid Use Associated with Reduced Risk for Fatal Overdose

Expanded availability of opioid use disorder-related telehealth services and medications during the Covid-19 pandemic was associated with a lowered likelihood of fatal drug overdose among Medicare beneficiaries, according to a new study.

"The results of this study add to the growing research documenting the benefits of expanding the use of telehealth services for people with opioid use disorder, as well as the need to improve retention and access to medication treatment for opioid use disorder," said lead author Dr. Christopher M. Jones, director of the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. "The



Expanded availability of opioid use disorderrelated telehealth services during the pandemic was associated with a lowered <u>likelihood of fatal</u> drug overdose.

PHOTO: MEEKO MEDIA/SHUTTERSTOCK

findings from this collaborative study also highlight the importance of working across agencies to identify successful strategies to address and get ahead of the constantly evolving overdose crisis."

Published in *JAMA Psychiatry*, the study is a collaborative effort led by researchers at CDC, the Centers for Medicare & Medicaid Services and NIH.

Key findings include:

- Medicare beneficiaries who began a new episode of opioid use disorder-related care during the pandemic and received opioid use disorder-related telehealth services were found to have a 33% lower risk of a fatal drug overdose.
- Medicare beneficiaries who received medications for opioid use disorder from opioid treatment programs and those who received buprenorphine, one of the medications for opioid use disorder, in office-based settings also had reduced odds of a fatal drug overdose of 59% and 38%, respectively.
- Mortality rates were higher in the pandemic cohort compared to the pre-pandemic cohort; however, the percentage of deaths due to drug overdose were similar between the two cohorts.

"At a time when more than 100,000 Americans are now dying annually from a drug overdose, the need to expand equitable access to lifesaving treatment, including medications for opioid use disorder, has never been greater," said NIDA Deputy Director Dr. Wilson Compton, senior author of the study. "Research continues to indicate that expanded access to telehealth is a safe, effective and possibly even lifesaving tool for caring for people with opioid use disorder, which may have a longer-term positive impact if continued."



Cherry blossoms in front of Bldg. 1.

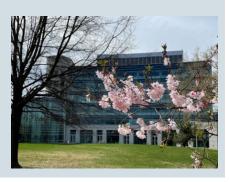
PHOTOS: ERIC BOCK

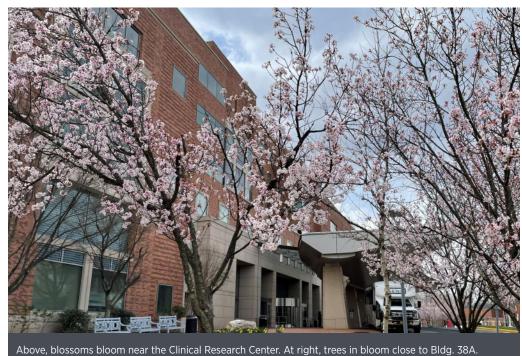
SPRING IS HERE!

For a Few Days, NIH's Cherry Blossoms Reach Full Bloom

The cherry blossoms sprinkled around NIH's Bethesda campus reached peak bloom at the end of March.

Each spring, the blossoms typically reach peak bloom in late March or early April. Peak bloom varies depending on weather conditions. Once peak bloom occurs, the blossoms remain on the trees for about a week. Wind, rain or cooler temperatures can cause the petals to fall off faster.







Above, blossoms near Bldg. 50; below, cherry blossoms ready for their close-up.



