



RECORD

June 20, 2025
Vol. LXXVII, No. 13

National Institutes of Health

DREAM TEAM

NICHD Researchers Invent Placenta Monitoring Device

BY AMBER SNYDER

The following two stories launch our third-annual series highlighting NIH makers—intramural researchers who devise



exciting new drugs, devices, applications, methods and other products. Read more about NIH Makers throughout the summer.

An electrical engineer and an obstetrician walk into a lab ... and emerge with an innovative new device.

Dr. Amir Gandjbakhche and Dr. Roberto Romero, both of whom work in NIH's *Eunice Kennedy Shriver* National Institute for Child Health and Human Development (NICHD), collaborated on a placenta monitoring device that recently obtained several patents. The researchers were brought together



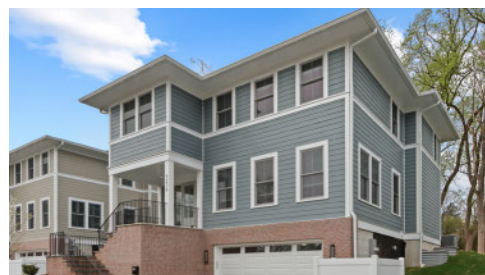
Dr. Amir Gandjbakhche (l) holds the device; Dr. Roberto Romero (r) holds an ultrasound transducer used to determine where to place the device to measure placental oxygenation.

through an NICHD affinity group (Maternal-Fetal Medicine & Translational Imaging), an undertaking spearheaded by the institute's scientific director Dr. Chris McBain and clinical director Dr. Catherine Gordon to bring multidisciplinary groups together and foster collaboration.

The placenta is a disc-shaped organ that forms in the uterus during pregnancy. It attaches to the uterine wall and connects to the fetus via the umbilical cord. It is the interface between mother and fetus, but we know little about this organ that may actually be one of the most complex after the brain.

Gandjbakhche and Romero sought to understand how the placenta functions

SEE **DEVICE**, PAGE 5



FAES opens new housing for fellows, see p. 8.

ALSO THIS ISSUE

Briefs	2
NIH Helps Launch First Global Initiative on the Exosome	3
NIH Researchers Develop Measure for Predicting Diets High in Ultra-Processed Foods	6
Feedback	6
Milestones, Volunteers	7
Seen	8

MORE RAPID RELIEF

Zarate Advances New Options to Treat Severe Depression

BY DANA TALESNIK



Dr. Carlos Zarate

When seeing patients over the years, Dr. Carlos Zarate noticed troubling trends. Existing treatments for clinical depression were often inadequate. His patients were suffering.

Not only did they need more immediate relief, some of them could find no relief at all.

More than 280 million people around the world suffer from depression, one-third

of whom do not respond at all to existing medications or don't experience a sustained response. It's this group—the millions who have treatment-resistant depression—who inspired Zarate to seek new solutions.

Zarate, who has studied mood and anxiety disorders at the NIH for 25 years, is chief of the Experimental Therapeutics and Pathophysiology Branch at the National Institute of Mental Health (NIMH). When testing dozens of different antidepressants in clinical trials, he found that, “a good number of people did not achieve remission, meaning fewer to no symptoms,” he said. If they did respond, “it often would take weeks or months for them to have an antidepressive response.”

In many cases, it took at least six months to achieve any kind of remission. “That’s a long time to ask people to hang in there for things to get better,” he said.

Zarate’s team spent many years studying different cellular and molecular pathways

SEE **MOOD**, PAGE 4

López-García to Deliver Next WALS on Biological Evolution

June 25

Dr. Purificación López-García will deliver the final Wednesday Afternoon Lecture Series (WALS) talk of the 2024-2025 season on Wednesday, June 25 at 2 p.m., ET in Lipsett Amphitheater and on video-cast. Her talk is titled, "A Microbial World's View on Biological Evolution."



Dr. Puri Lopez-Garcia

Molecular approaches including sequencing of amplified marker genes, metagenomics and single-cell genomics have uncovered an astounding diversity of prokaryotes and microbial

eukaryotes in natural ecosystems. Many of these correspond to previously unknown lineages lacking cultured representatives. Functional predictions from genomic sequences often reveal unsuspected metabolic capabilities. The integration of this information is valuable toward understanding the ecology of these lineages and their role in biogeochemical cycles.

López-García is a research director in the ecology, systematics and evolution unit at the French National Centre for Scientific Research (CNRS), the largest fundamental science agency in Europe. She will discuss selected examples from her lab of newly identified lineages across the three domains of life that shed new light on major evolutionary diversifications.

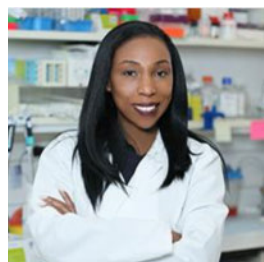
For more information or to request reasonable accommodation, email WALSoffice@od.nih.gov.

Seminar to Explore Zebrafish Model in Cancer Research

June 26

The Beyond Mammals: Exploring Cancer Models series focuses on non-mammalian animal models and their applicability to cancer research. This third seminar in the series, focusing on zebrafish, will

take place online only on Thursday, June 26 from 1:00 p.m. to 2:15 p.m., ET.



NCI's Dr. Kandice Tanner

This seminar will feature three researchers who are using zebrafish to answer cancer biology questions: Dr. James Amatrude, chief, Division of Pediatric Hematology-

Oncology at Children's Hospital Los Angeles; Dr. David Langenau, investigator and professor at Massachusetts General Hospital, and Dr. Kandice Tanner, senior investigator in the laboratory of cell biology at NIH's National Cancer Institute.

Following their talks, a discussion will center on



Above, NIH Director Dr. Jay Bhattacharya addresses NIH's Fogarty International Center advisory council. Above, at Stone House after his remarks, Bhattacharya converses with Dr. David Spiro, director, Fogarty's Division of International Epidemiology and Population Studies, as Satabdi Raychowdhury, grants management specialist and Jamie Bay Nishi, CEO of American Society of Tropical Medicine and Hygiene, look on. **PHOTOS: MERRIJOY VICENTE / FIC**

Bhattacharya Addresses Fogarty

NIH Director Dr. Jay Bhattacharya addressed the Fogarty International Center's advisory board June 2 meeting, where he discussed his priorities for NIH and strategies to improve trust in science.



"The basic science portfolio is a fundamental part of what NIH does and it's going to fuel the next generation of advances," he said.

three questions: What is unique about this organism that makes it useful as a cancer model? What are the most important differences between this model and human cancer? And what are the major obstacles to more cancer researchers adopting this model for use in their labs?

This seminar is free and open to the public. For more information, and to register—after which you will receive the WebEx link to the virtual seminar—see: go.nih.gov/OqBAVN9.

Webinar to Explore Opportunities for Women's Health Research

THE OFFICE OF RESEARCH ON WOMEN'S HEALTH PRESENTS

SMALL BUSINESS OPPORTUNITIES FOR INNOVATIVE WOMEN'S HEALTH RESEARCH WEBINAR

JUNE 25, 2025
11 a.m. – 1 p.m. EDT

NIH's Office of Research on Women's Health (ORWH) is hosting a webinar on June 25 from 11 a.m. to 1 p.m. ET, to discuss "Small Business Opportunities for Innovative Women's Health Research." Staff from NIH's Small Business Education and Entrepreneurial Development (SEED) Office and select institute small business programs will provide overviews of the small business program and Institute- and Center-specific interests at the intersection of innovation and women's health.

To register, see: <https://go.nih.gov/AIDCN1U>.

CCDI to Host Fall Symposium

The Childhood Cancer Data Initiative (CCDI) will host an in-person symposium in Bethesda on Oct. 6 and 7 with an option to attend online. This event is open to the public, though registration is required.

Online registration will close on August 7. On-site

registration will not be available.

This NIH National Cancer Institute symposium brings together the childhood cancer community to learn about CCDI programs and resources intended to advance research and clinical care—with the aim of fostering collaboration and innovation.

Attendees can expect to:

- Hear the latest on CCDI, its user-friendly platforms and tools, the Molecular Characterization Initiative (MCI) and its impact on new therapeutic target discovery, and NCI childhood cancer research programs.
- Understand how big data and real-world evidence in childhood cancer can support research to uncover insights and improve treatment outcomes.
- Learn about CCDI-funded data use projects, including updates on Clinical Laboratory Improvement Amendments (CLIA) certification of solid tumor methylation classifiers.
- Join industry pioneers and network with researchers, clinicians and advocates.
- Meet principal investigators and young investigators and hear about their research in an informal and easy-to-understand format.

Those interested in presenting a poster can submit an abstract (<https://events.cancer.gov/nci/ccdi-symposium/abstract>) by August 7, 2025 at 5:00 p.m. E.T.

To register, visit: <https://go.nih.gov/jFbU9zi>.

#CCDI25

CHILDHOOD CANCER DATA INITIATIVE (CCDI)

SYMPOSIUM

October 6–7, 2025

REGISTER TODAY
[CANCER.GOV/CCDI](https://cancer.gov/ccdi)

5 YEARS OF CCDI Collaborate. Innovate. Transform.

NIH Helps Launch First Global Initiative on the Exposome

BY CAROLINE STETLER

Global leaders in science, medicine and business as well as NIH leaders launched an unprecedented initiative to share knowledge and resources for quantifying how our



NIH's Dr. Nicole Kleinstreuer

environments influence health. The global initiative builds on momentum to comprehensively and systematically measure the exposome—the integrated compilation of

all physical, chemical, biological, and psychosocial influences that impact biology throughout one's life course.

Hundreds of people from the public and private sectors representing 30 countries recently gathered in Washington and online to create a research framework that bridges emerging technologies, big data and artificial intelligence with ethical considerations toward better understanding environmental health risks and developing new tools for disease prevention, diagnostics and treatment.

"Our health is not determined by biology alone; it is shaped by our environment every day across a lifetime," said Dr. Nicole

Kleinstreuer, acting NIH deputy director for Program Coordination, Planning and Strategic Initiatives.

Over the past decade, many different labs and research groups have begun working on exposomics, but these forum participants gathered toward establishing the first coordinated global effort. Thanks to a convergence of technical advances, scientists can now determine how the environment and genes interact to affect a person's unique biology and health. Newer technologies, including mass spectrometry and nanotechnology, allow scientists to measure hundreds of chemicals in a simple blood, tissue or tumor sample.

"If we want to influence human health, we have to develop a bold vision and think creatively about how we can work together to study the complex interplay of different environmental exposures," said Dr. Rick Woychik, director, NIH's National Institute of Environmental Health Sciences (NIEHS), during his keynote address.

Nearly 25 years ago, the completion of the first draft of the Human Genome Project helped scientists move beyond studying a single gene's effects to understanding how all genes together shape health. Developing the technology to sequence the entire genome included a \$3.8 billion investment from the U.S. government. The return on that investment: \$800 billion in economic activity from 1988-2010.

To that end, experts now say it's time to move beyond measuring one environmental exposure at a time to determining the health effects of the many exposures people encounter every day.

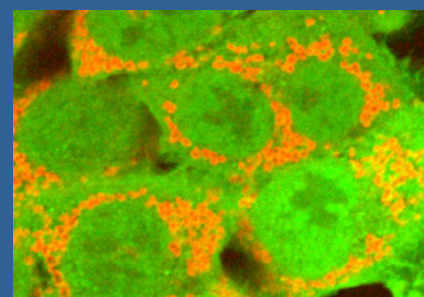
The exposome project reaches across many scientific disciplines—chemistry, biology, epidemiology, toxicology, public health, clinical research, patient care, data science, artificial intelligence (AI), policy, ethics, law and social science.

"The NIH Real World Data Platform is one way we can turn these ideas into real actionable science," said Kleinstreuer. "It means expanding how we think about exposome assessment, harmonizing diverse data streams from environmental

monitoring to wearable sensors, biospecimens, geospatial tools, social data, and doing so in a way that is scalable, secure and standardized."

Studies show the environment may be a major contributor to chronic conditions, such as type 2 diabetes, obesity and heart disease.

The ability to link exposures — whether external like air pollution or internal like stress — to changes in a person's biology can be used to understand risk factors and improve health at the individual and population level. Prevention may be paramount, but exposome data also can be used to halt disease progression and improve treatment. **R**



ON THE COVER: NIH scientists have used RNA interference (RNAi) technology to identify dozens of genes which may represent new therapeutic targets for treating Parkinson's disease. The scientists used RNAi to find genes that interact with parkin (green), a protein that tags damaged mitochondria (red).

IMAGE: NIH - NCATS



NIEHS Director Dr. Rick Woychik describes how countries working in unison made the Human Genome Project a success, which should be a model for operationalizing exposome research.

PHOTOS: CHRIS MYERS PHOTOGRAPHY

The NIH Record

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

Editor:

Dana Talesnik • Dana.Talesnik@nih.gov

Assistant Editors:

Eric Bock • Eric.Bock@nih.gov

Amber Snyder • Amber.Snyder@nih.gov

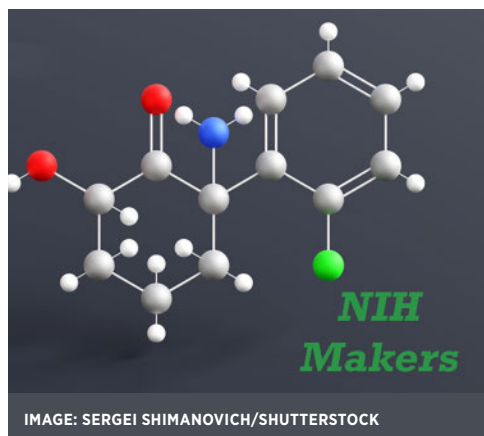
Subscribe via email:

<https://go.usa.gov/x6mgQ>

Follow: nihrecord.nih.gov/



National Institutes of Health
Turning Discovery Into Health



Mood

CONTINUED FROM PAGE 1

and potential medications that could bring about rapid antidepressant effects. A decade ago, he homed in on ketamine, an anesthetic approved by the Food and Drug Administration (FDA) that is also used to treat pain.

The drug enters a brain glutamate receptor called NMDA and blocks it. “That resulted in a rapid antidepressant response, meaning what you get in a few hours was equivalent to what takes six weeks or longer with a traditional antidepressant,” Zarate said.

What’s more, ketamine showed promising results in individuals who did not improve after trying different antidepressants or electroconvulsive therapy (ECT); many of these individuals also had previous suicide attempts.

But there was an overshadowing drawback: ketamine can be abused.

“Even though we found rapid antidepressive effects,” noted Zarate, “because of its dissociative side effects (temporary detachment from reality), there’s a potential for misuse. So, industry had many reservations about developing this drug.”

In controlled NIMH studies, Zarate’s team tested ketamine intravenously and were co-inventors of a nasal spray version. Over time, they replicated results and ultimately demonstrated that ketamine could be administered safely. Other researchers began building on their findings, leading to independent replication.

In 2018, Janssen licensed the esketamine nasal spray, called Spravato, from NIH and its Yale and Mt. Sinai collaborators. A year later, the FDA approved Spravato—when

combined with an oral antidepressant—for treatment-resistant depression in adults with the stipulation that it be administered by a healthcare provider in a medical facility. In 2020, the FDA approved Spravato for depressive symptoms in adults with major depressive disorder with acute suicidal ideation or behavior.

In January 2025, the FDA expanded its approval of Spravato as a stand-alone therapy in adults with severe depression. Esketamine, administered under medical supervision, is now approved in more than 90 countries and used increasingly around the world.

Meanwhile, Zarate’s lab continued to seek improved treatments.

“Now we know ketamine works,” he said, “so how can we re-engineer it to better understand its mechanisms?”

A breakthrough came several years ago, after a series of studies NIMH conducted in conjunction with the National Institute on Aging (NIA), the National Center for Advancing Translational Science (NCATS) and the University of Maryland. They focused on one of ketamine’s metabolites—hydroxynorketamine (HNK)—that does not have ketamine’s dissociative side effects or misuse potential. The investigators synthesized HNK for more preclinical experiments and eventual human use.

Zarate and colleagues published results of a Phase-1 study in healthy volunteers

showing that HNK is safe, and they’ve now begun a Phase-2 trial in patients with treatment-resistant depression. In these studies, investigators administer HNK intravenously, but it has the potential to be developed into an oral antidepressant that ultimately could reach many more patients.

Along the way, Zarate has faced ongoing challenges. “We had to pay close attention to ethical and moral considerations,” he noted.

One such consideration when conducting mental health research is whether the patient has the capacity to consent to an experimental therapeutic, or any treatment.

Also at the forefront of consideration in pursuing this line of research is the misuse potential of ketamine—particularly in people with depression and among those who have had prior substance use challenges. Zarate recounted multiple meetings with interdisciplinary teams—physicians, nurses, social workers, nutritionists—to devise a plan to address patients’ needs and staff concerns when studying ketamine.

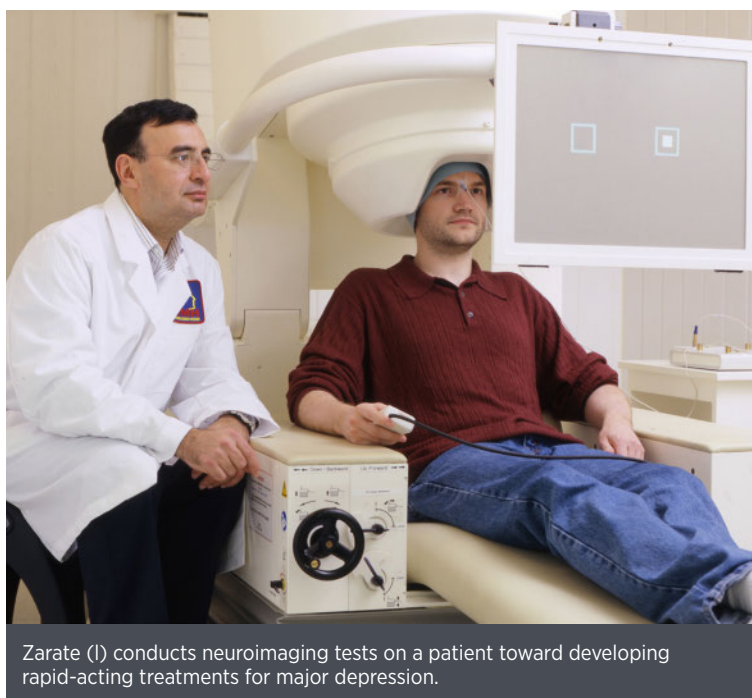
He said, “In the end, it took us quite a bit of time to get these studies up and running, but a lot of good has come out of it.”

Going forward, Zarate’s team is studying organoids derived from patients with the goal of further improving treatments.

“If we can find common changes in gene expression or changes in proteins with distinct rapid-acting antidepressants, that could offer a new target to pursue for development,” he said.

One of the most exciting parts of this journey, he added, is working with trainees and watching this program develop.

“We’ve gone from mainly a clinical program to a biological clinical translational program,” Zarate said. “We go from the clinic to the bench and back and forth to see if we can develop better insights that we should pursue.” **R**



Zarate (l) conducts neuroimaging tests on a patient toward developing rapid-acting treatments for major depression.

Device

CONTINUED FROM PAGE 1

during pregnancy. It is a “unique, magical organ ... that grows from a few cells to half of a kilogram” over the course of pregnancy, said Romero. “It functions as the fetal lung (exchanging oxygen and CO₂), acquires nutrients like a bowel and also serves as a kidney for metabolic excretion.”

But, up until recently, doctors could only estimate vital measures of placental health such as oxygenation via indirect methods, like measuring changes in fetal heart rate. Placental oxygenation is incredibly important for developing fetuses; suboptimal delivery of oxygen causes fetal growth restriction, which has been linked to chronic health conditions later in life, and in extreme cases, can lead to fetal death.

In their collaboration, Gandjbakhche and Romero used placental oxygenation as a proxy measure for overall placental function.

Gandjbakhche, who is a senior investigator and head of the Section on Translational Biophotonics, drew inspiration from a

fingertip pulse oximeter when designing the placental monitoring device. The pulse oximeter measures how much light passes through a person’s fingertip and uses that to calculate blood oxygen saturation, or how well a person’s blood is carrying oxygen through their body.

“The concept of the device is similar to a pulse oximeter,”

Gandjbakhche explained, “but the environment is very different because the light first has to pass through several layers (skin, fat, uterus and then placenta), and the device needed to distinguish between those layers and the placenta.”

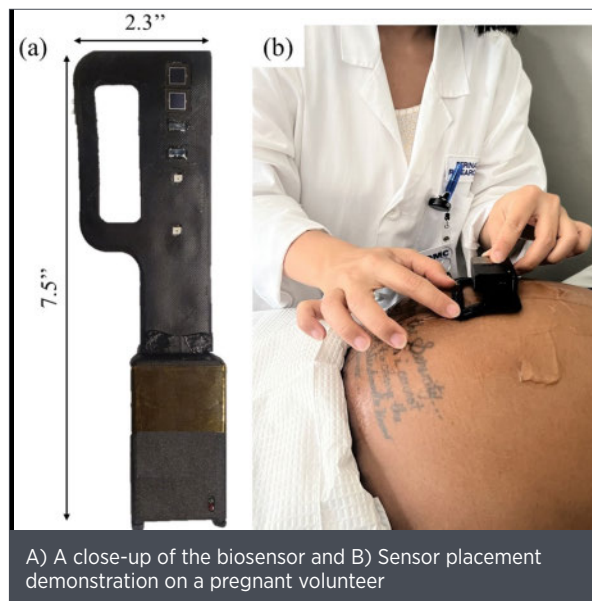
After many rounds of development, he and his research fellow Dr. Thien Nguyen

devised a wireless, wearable device that uses near-infrared spectroscopy to measure changes in oxygenated and deoxygenated blood in the placenta. The device sits on the mother’s abdomen to collect data and can be integrated into standard monitoring systems. Gandjbakhche also built algorithms to differentiate signals from maternal and fetal tissues, which makes the readings more



The NIH makers drew inspiration for their device from a fingertip pulse oximeter.

PHOTO: TILIA LUCIDA/SHUTTERSTOCK



A) A close-up of the biosensor and B) Sensor placement demonstration on a pregnant volunteer

accurate and meaningful. The multi-sensor device is able also to measure fetal and maternal heart rate, fetal movement and uterus contraction.

Gandjbakhche tested the product in a pilot study in partnership with Romero, chief of the Pregnancy Research Branch. The collaborators are now preparing to launch larger clinical trials for the next phase of testing.

Ultimately, they envision the device being integrated into telehealth systems for home use. It could be useful for monitoring high-risk pregnancies, and for early detection of placental insufficiency and fetal hypoxia, while continuously monitoring fetal and maternal vital signs. The device could be particularly useful for pregnant patients in rural areas or so-called maternal care deserts, where they may not have adequate access to prenatal care.

Deployment of the device is likely still several years away, but Gandjbakhche and Romero are grateful for the infrastructure at NIH that supports and encourages such collaborations.

Thousands of NIH investigators collaborate to accomplish their goal of improving human health, said Romero. “Biophotonics and obstetrics alone won’t do it.”

“Our story is one of team science in which engineers, physicists, biologists and physicians converged to address an important clinical need,” Gandjbakhche said. “Without the affinity group that brought us together, this would be a device in a closet.” **R**



A pregnant patient attending the Prenatal Clinic of the Pregnancy Research Branch in Detroit volunteers in an observational study to assess placental oxygenation. Dr. Bieda applied the device and the data generated is displayed on the computer in real-time. Behind Bieda, from l to r, Dr. Thien Nguyen, Dr. Kosar Khaksari, Romero and Dr. Eun Jung Jung.

NIH Researchers Develop Measure for Predicting Diets High in Ultra-Processed Foods

NIH researchers have identified patterns of metabolites in blood and urine that can be used as an objective measure of an individual's consumption of energy from ultra-processed foods. The findings appeared in *PLOS Medicine*.

Metabolites are left after the body converts food into energy, a process known as metabolism. Scientists used these data to develop a score based on multiple metabolites, known as a poly-metabolite score, that has the potential to reduce the reliance on, or complement the use of, self-reported dietary data in large population studies.

"Limitations of self-reported diet are well known," said lead investigator Dr. Erikka Loftfield of NIH's National Cancer Institute, who researches the connections among diet, metabolism, the microbiome and genetics and their effects on cancer risk. "Metabolomics provides an exciting opportunity to not only improve our methods for objectively measuring complex exposures like diet and intake of ultra-processed foods, but also to understand the mechanisms by which diet might be impacting health."



Diets high in ultra-processed foods have been linked to increased risk of obesity and related chronic diseases.

PHOTO: JENIFOTO/SHUTTERSTOCK

Diets high in ultra-processed foods—defined as ready-to-eat or ready-to-heat, industrially manufactured products, typically high in calories and low in essential nutrients—have been linked to increased risk of obesity and related chronic diseases, including some types of cancer. Large population studies quantifying the health effects of ultra-processed foods typically rely



NIH investigator Dr. Erikka Loftfield studies links between diet and cancer risk.

on self-reported data from dietary questionnaires, which may be subject to differences in reporting and may not account for changes in the food supply over time.

In the new study, the researchers used data from several existing studies to identify metabolites and patterns of metabolites in blood and urine that were related to ultra-processed food intake.

Observational data came from 718 older adults who provided biospecimens and dietary information over a 12-month study period. Experimental data came from a small clinical trial of 20 adults at the NIH Clinical Center who consumed a diet high in ultra-processed foods (80% of energy) and a diet comprised of no ultra-processed food (0% of energy) for two weeks, each in random order.

The researchers found hundreds of metabolites that correlated with the percentage of energy from ultra-processed foods in the diet. Using machine learning, they identified metabolic patterns associated with high intake of ultra-processed foods and calculated poly-metabolite scores for blood and urine separately.

Additional tests found these scores could accurately differentiate within trial subjects between the highly processed diet phase and the unprocessed diet phase.

Study participants were older U.S. adults whose diets may vary from other populations. Therefore, findings will need to be replicated in other age groups and in populations with different diets. Additionally, future research is needed to determine the association of these poly-metabolite scores and the risk of diseases such as cancer and type 2 diabetes. **R**

FEEDBACK

Getting a Lift in the Clinical Center

Have a question about some aspect of working at NIH? You can post anonymous queries by clicking on the Feedback tab at <https://nihrecord.nih.gov/> and we'll try to provide answers.



Elevators in the older part of Bldg. 10

Feedback: The elevators in the old part of Building 10 are breaking down. Elevator #10 has been out of service since November 2024. We have submitted maintenance requests and now we are being told to directly contact Admiral Elevator company that is supposed to repair the elevator. No repair date has been promised and for employees with health issues who work on the mezzanine floor (B3MB accessible only by elevator #10), it has become a hassle. The housekeeping staff is also struggling. This issue needs to be resolved.

Response from the Office of Research Services (ORS):

Admittedly, Elevator 10 in Building 10 has been out of service for some time now. Unfortunately, ORF still does not have an estimated return to service date. The needed repair(s) are extensive and require coordination efforts between several outside parties that continue to be unresolved. We recognize the inconvenience this outage may cause our customers and will continue to seek a resolution that restores service as quickly as possible.

In the meantime, the location of Elevator 10 is within close proximity of 4 additional units servicing the same floor levels with the exception of the B3 Mezzanine level. Elevator units 6, 7, 8 and 9 are available for use and are fully accessible further north of the same corridor.

Again, we understand the inconvenience this may cause to our end user and apologize for the extensive outage.

For updates on the status of these repairs, visit the 58000.nih.gov website and enter the ticket number M31345182. ORF will be placing signs at the elevator on each floor in the near future.

NICHD's Henken Retires



Dr. Deborah Henken

After 35 years of federal service at NIH, Dr. Deborah Henken, program director and deputy branch chief at NIH's *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), retired from full-time work on May 31.

"I have enjoyed my career at NIH—working to advance scientific progress in developmental neurobiology and assisting established and junior investigators to navigate the NIH system to achieve grant funding," said Henken. "NICHD was an amazing place to work."

Henken earned her undergraduate degree in psychology from Swarthmore College and her Ph.D. in neuroscience from Dalhousie University where she studied regeneration and plasticity in the teleost visual system. Upon completion of postdoctoral training in the department of anatomy at the Medical College of Pennsylvania (now Drexel University College of Medicine)—where she contributed to our understanding of neural regeneration in the mammalian peripheral nervous system—she moved to the intramural program. At NIH's National Institute of Neurological Disorders and Stroke (NINDS), she focused on developing a viral method of peripheral nerve damage that would allow for neuronal regrowth in the central nervous system.

In 1995, Henken was accepted into the NIH Grants Associate (GA) Program and became the last scientist to complete the program before it was terminated; she was also the only person to be pregnant and give birth while in the program,

perhaps presaging her ultimate home at NICHD.

The GA Program was officially introduced in 1962 and ran for 35 years.

"The GA Program was a unique, exciting and amazing way to learn about the NIH in particular, and the federal government in general," she said. Her appreciation of the NIH as a special place stayed with her throughout her 35-year career.

Upon graduation from the GA program, Henken received offers from multiple institutes, and accepted a position as a program officer in the Developmental Biology, Genetics and Teratology Branch (now the Developmental Biology and Congenital Anomalies Branch) at the NICHD. While her background was in neuroscience rather than developmental biology, the former NICHD Director Dr. Duane Alexander and former NICHD Deputy Director Dr. Yvonne Maddox convinced her that NICHD was the right place to be to make a difference. Her 29-year career at NICHD attests to the fact that they were right.

Although Henken loved bench research, she found she loved public service more. As a program director, she managed a portfolio of research grants, training grants and programs focused on developmental neurobiology. She was instrumental in advocating for the zebrafish (and other non-human species) as important models for developmental biologists to understand the mechanisms underlying structural congenital anomalies, such as spina bifida. Especially supportive of the neural tube defect (NTD) research community, Henken was recognized by this group in 2024.

At NICHD, she chaired the Neuroscience Working Group and the K99/R00 Transition Committee and served as NICHD's representative on the NIH Blueprint for Neuroscience Research since its inception.

Throughout her career, Henken contributed to NIH and the biomedical community through community service. As an NINDS fellow and junior woman in research, she co-founded the Bethesda Chapter of the Association for Women in Science (AWIS) and now has emeritus status.

As a young mother, she served as chair of the NIH Childcare Board. As her children grew, she became active in science education and continues to contribute to NIH Take Your Child to Work Day activities. She was chair of the NIH STEP (Staff Training in Extramural Programs), a wonderful trans-NIH extramural training group that focused on areas of science and science administration that fell between or crossed mission areas of NIH institutes and centers.

When her children were older, she focused on improving the workplace for federal employees

by serving as co-chair of the NICHD WorkLife Enrichment (WE) Committee, secretary on the Recreation & Welfare (R&W) Board of Directors, and on the NIH Green Team. During her later years she was an active member of the NIH Aging and Adult Dependent Care Committee (AADCC).

Throughout her career, Henken organized or co-developed workshops and conferences, chaired or served on many NICHD- and NIH-wide committees, and authored or co-authored a number of publications and journal articles. Over the years, her work garnered numerous recognitions and awards, and she was often invited to speak at national and international conferences, workshops and meetings. Her positive presence will be missed.

In retirement, Henken plans to travel and spend more time with family and with her greenery.

VOLUNTEERS

Volunteers Needed for Cancer Study

Have you been diagnosed with cancer of the head and neck? NIH researchers are investigating the effectiveness of atorvastatin (40 mg) at reducing the incidence of hearing loss in patients treated with cisplatin-based chemotherapy for head and neck cancer. To inquire about participating in this study at the NIH Clinical Center, please contact the NIH Office of Patient Recruitment at 866-444-8810 or ccopr@nih.gov. For more information on this clinical trial, see: <https://go.usa.gov/xFY69>.

DC Volunteers Sought for Heart Study

If you live in Washington D.C. ward 7 or 8 and you are an African American 18 or older with a risk factor for heart disease, then you can participate in a diet research study. Compensation for participation will be provided.

To learn more about this study, see: <https://go.nih.gov/gHkL7WX>.

To inquire about participating, please contact the NIH Office of Patient Recruitment at 866-444-8810 or ccopr@nih.gov. Refer to study #20-CC-0036.

Volunteer for Fish Oil Study

If you or a family member have elevated triglycerides, you may be interested in participating in a clinical trial designed to understand the effects that fish oil with Palmitoleic acid may have on metabolism and understanding heart disease. To learn more about this protocol taking place at the NIH Clinical Center, see: <https://go.nih.gov/ZPRnJKA>.

To inquire about participating, please contact the NIH Office of Patient Recruitment at 866-444-8810 or ccopr@nih.gov.



In this 2018 fall photo, Henken (top row, r) with her colleagues (top row, from l), Tyl Hewitt, Mayumi Miller, Mahua Mukhopadhyay, James Coulombe; (front row, from l): Reiko Toyama, Valerie Cotton, Lorette Javois, Maria McShay



FAES To Open Additional Residences for NIH Fellows, Trainees

BY ERIC BOCK

The Foundation for Advanced Education in the Sciences, Inc. (FAES) is nearing completion on seven additional residences for NIH trainees near NIH's Bethesda campus.

"Decades in the making, this new community, a true labor of love by FAES in close collaboration with NIH leadership, is designed to be a unique environment where NIH scholars can work, learn and collaborate," said FAES CEO Christina Farias. "It is our hope this special place will foster both advancements in biomedical science and the creation of life-long friendships, ultimately benefiting scientific progress and humankind."

The residences are part of the FAES Community for Biomedical Innovation at NIH that will provide 65 residential units for intramural trainees and a scholar Commons, a central gathering place for occupants to meet and collaborate.

Construction of the community occurred in two phases. The development's first six houses were completed in the summer of 2022.

The houses have been well received by those who occupy them. One occupant stated, "nicest place I've ever lived and the tier 1 housing on West Cedar Lane is the best possible place to live if working in building 10."

FAES housing provides large private, single occupancy bedrooms close to the NIH main campus in Bethesda, Md. All units have a private bathroom, individual refrigerator, pantry and entry cubby. Houses may be co-occupied

by up to five visiting NIH trainees.

Two of the residences will include a room located on the ground level where the shared common areas are located (kitchen, laundry, dining room and living room.) The ground floor unit in these residences will have various amenities including ramp access to the front door, grab bars in the bathroom, raised outlets and lowered light switches and countertops.

Potential occupants must be enrolled in an NIH stipend-paid fellowship or scholarship program to be eligible to live in the community. Occupants can stay for a minimum of 30 days. The flexible agreement terms, turnkey accommodations and distance to the main NIH campus let occupants focus on their research at NIH.

FAES takes care of regularly provided services, including professional housecleaning, lawn care, snow removal, pest control and facilities maintenance. Occupants pay a monthly occupancy fee, which covers utilities, high-speed internet and basic household products.

FAES initially acquired residential property from NIH alumnus and Nobel Laureate Dr. Christian B. Anfinsen, Jr. His home is now the new trainee house at 5205 West Cedar Lane, the final house completed during the first phase of development. Anfinsen was one of 11 NIH scientists to co-found FAES, and he deeded his home and property to the organization.

In July 2021, FAES demolished four single-family homes on the property to make way for six new dwellings that would provide turnkey accommodations for NIH fellows and trainees.

To learn more about FAES housing, including how to apply, see: <https://w.faes.org/housing>.

