

Report to the National Advisory Environmental Health Sciences Council

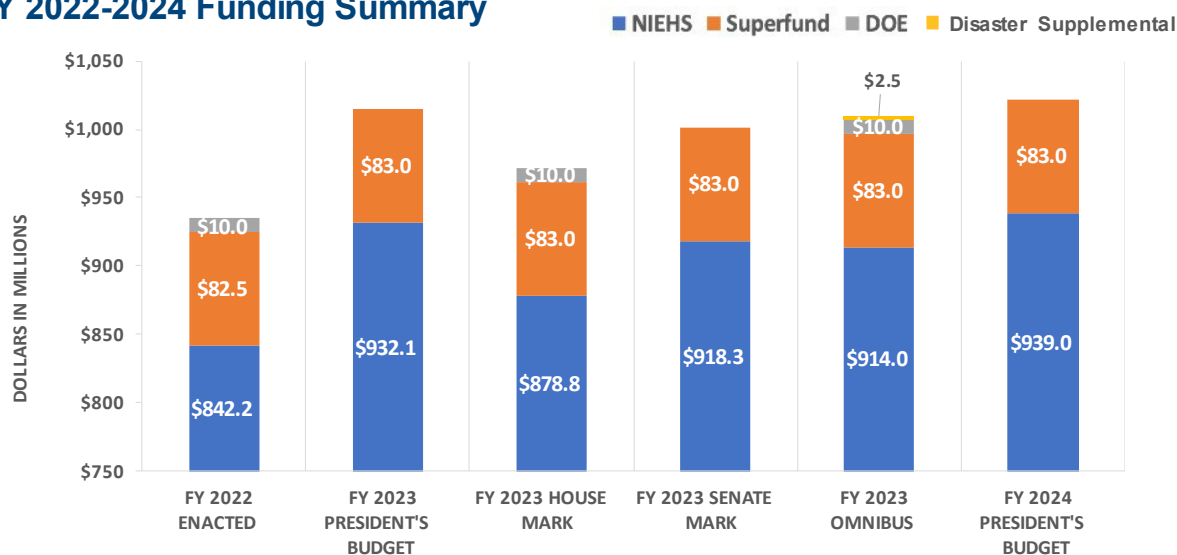
Director, NIEHS and NTP

June 6, 2023

Congressional Appropriations



FY 2022-2024 Funding Summary



National Institutes of Health
U.S. Department of Health and Human Services

3

Legislative Report

118th CONGRESS (2023-2024):

FY2024 President's Budget:

On March 9th, the FY24 President's Budget high level budget was released, and the full budget and congressional justifications released on March 13th, 2023. The Fiscal Year 2024 President's Budget provides \$48.6 billion in discretionary and mandatory resources for NIH, an increase of \$920 million above FY 2023 enacted.

The President's FY24 Budget request for NIEHS is \$939 million for the Labor-HHS appropriation, which is an increase of \$25 million for Climate Change and Health research above the FY23 Enacted (FY23 Omnibus: \$914 million). For the NIEHS Interior and Environment Appropriation, the FY24 President's Budget proposed a flat budget for the Superfund related programs (FY23 Omnibus: \$83 million). The NIEHS FY24 Congressional Justifications can be found here:

<https://www.niehs.nih.gov/about/congress/justification/index.cfm>.

Of note: the NIH Climate Change and Health Initiative (CCHI) was mentioned in the [HHS Budget in Brief](#) (pg. 50) and had multiple mentions in the [NIH Congressional Justification](#) (pg. 22, 68-69, 129, 145-149).

The language in the HHS Budget in Brief for NIH CCHI ([pg. 50](#)):

“Impact of Climate Change on Human Health”

The FY 2024 President’s Budget will include an increase of \$25 million for NIH to continue research and other activities related to climate change, in collaboration and coordination with other federal agencies. NIH not only provides research on human health impacts related to climate change and adaptation but also raises awareness and creates new partnerships to advance key areas of health research and knowledge development on the effects of climate change on human health. In FY 2024, NIH will continue to work towards advancing the key areas of health research and knowledge development on human health effects of climate change. While climate change is a global process, it has very local impacts that can profoundly affect communities, which the Department considers to be one of the top public health challenges in our time.”

Debt Limit Bill, H.R. 3746, Fiscal Responsibility Act sets caps on FY24 and FY25 funding

On Tuesday, May 30th, a rule bill (H.Res. 456) was passed out of the House Rules Committee to provide consideration of the Debt Limit Bill (H.R. 3746 Fiscal Responsibility Act), which was the first procedural hurdle to raise the debt ceiling. On May 31st, the House passed the rule providing consideration of H.R. 3746 and proceeded to one hour of debate on H.R. 3746 later in the evening. After the debate, the House voted and passed the debt limit bill, [H.R. 3746](#), by a vote of 314-117. On June 1st, the Senate, with 63-36 vote, passed the Debt Limit bill sending the bill to President Biden’s desk. Before the vote, the Senate took hours negotiating between the two parties and were able to settle on 11 amendments to be voted on with the bill, all of which failed, to ultimately get the bill passed. As of this writing, the bipartisan bill is being sent to President Biden for his signature and he has indicated that he will sign the bill as soon as he receives it.

Highlights of the Debt Deal Summary:

1. Suspends the Debt Limit until January 1, 2025 (after the 2024 elections)
2. Sets caps on defense and nondefense discretionary spending for FY24 and FY25.
 - It would increase funding for defense and for veterans programs but reduce funding for other nondefense programs and activities, and on net reduce overall base discretionary spending by \$12 billion for FY 2024. The caps for both defense and nondefense spending would increase by 1% for FY 2025.
 - Under the measure, total base discretionary spending would be reduced from the current \$1.602 trillion for FY 2023 to \$1.59 trillion for FY 2024 — a \$12 billion (0.75%) reduction.
 - **Within that FY 2024 total, defense spending is capped at \$886.3 billion — about \$28 billion (3%) more than FY 2023, as proposed by President Biden's FY 2024 budget. Meanwhile nondefense spending is capped at \$703.7 billion — about \$40 billion (almost 5.5%) less than FY 2023.**

- For FY 2025 each discretionary cap would increase by 1%, to \$895.2 billion for defense and \$710.7 billion for nondefense, with the caps for both years to be enforced through sequestration.
 - **White House says that through a side agreement with Speaker McCarthy additional funding will be provided during the appropriations process so actual non-VA nondefense spending for FY 2024 will be roughly equal to the FY 2023 level.** For FY 2025 it would increase by 1%. Expected "adjustments" each year include the use savings from rescissions of IRS funding provided by last year's Inflation Reduction Act as well as rescissions of mandatory funding provided by this bill for a little-used Commerce Department fund; the use of savings from placing limits on other mandatory programs (so-called "CHIMPS"); and the declaration of appropriations as "emergency funding" that is exempt from base discretionary caps.
3. Rescinds about \$29 billion in COVID-19 and IRS funding, it increases work requirements for the federal food stamp and Temporary Assistance for Needy Families programs, and it modifies the permitting review process for infrastructure projects under the National Environmental Policy Act to accelerate project reviews and approvals.
 4. It prevents the Biden administration from further extending the pandemic-era pause on individuals paying their federal student loans, and it requires federal agencies that develop rules or regulations that would cost the government money (such as the president's student loan forgiveness program) to also prepare plans that would fully offset that cost and reduce federal direct spending by an equal or greater amount.
 5. And finally, it creates an incentive for Congress to enact all 12 appropriations bills this year and next by reducing all spending at the end of the calendar year if any appropriations measure is operating under a CR.
 6. The Congressional Budget Office (CBO) estimates that the measure would reduce deficits by about \$1.5 trillion through FY 2033 if appropriations subject to caps on discretionary funding were limited to the FY 2024 and FY 2025 statutory caps set by the bill. That deficit reduction would result from a \$1.3 trillion reduction in discretionary outlays, a net decrease of \$10 billion in mandatory funding, a net reduction of \$2 billion in revenues, and a \$188 billion reduction in interest on the public debt.

Presidential Nominee for NIH Director:

On May 15, 2023, President Biden [announced his intent to nominate Dr. Monica Bertagnolli](#), current National Cancer Institute (NCI) Director, for NIH Director. Senate confirmation dates have not been announced yet.

Dr. Bertagnolli's Bio from the announcement: "Dr. Bertagnolli is currently Director of the National Cancer Institute (NCI), the first woman to serve as NCI Director. She previously served as the Richard E. Wilson Professor of Surgery in the field of surgical oncology at Harvard Medical School, a surgeon at Brigham and Women's Hospital, and a member of the Gastrointestinal Cancer Treatment and Sarcoma Centers at Dana-Farber Cancer Institute.

Throughout her career, Dr. Bertagnolli has been at the forefront of clinical and research oncology and championed collaborative initiatives to transform the data infrastructure for clinical cancer research. She served as group chair of the Alliance for Clinical Trials in Oncology, a National Clinical Trials Network member organization, and was the Chief Executive Officer of Alliance Foundation Trials, LLC, a not-for-profit corporation that conducts international cancer clinical trials and focuses on the inclusion of rural communities in clinical studies.

Dr. Bertagnolli is a member of the National Academy of Medicine, a past president and chair of the board of directors of the American Society of Clinical Oncology, and has served on the board of directors of the American Cancer Society and the Prevent Cancer Foundation.

The daughter of first-generation Italian and French Basque immigrants, Dr. Bertagnolli grew up on a ranch in southwestern Wyoming. She graduated from Princeton University with a Bachelor of Science in Engineering degree and attended medical school at the University of Utah. She trained in surgery at Brigham and Women's Hospital and was a research fellow in tumor immunology at the Dana-Farber Cancer Institute."

BRIEFINGS:

- **Senator Heinrich Staff Update on the NIH Climate Change and Health Initiative:** On February 17th, 2023, Dr. Collman met with Ms. Claire Wengrod from Senator Heinrich's staff. Senator Heinrich was looking to do a "Dear Colleague" support letter and put in a Member Request for the NIH CCH funding again this year. Dr. Collman gave a high-level overview update of the NIH CCH Initiative and answered questions from the Staffer.
- **Senator Brown and Casey's Staff Briefing on E. Palestine Train Derailment:** On March 16th, 2023, Dr. Miller, Dr. Collman and Dr. Balshaw briefed Senator Brown's (D-OH) and Senator Casey's (D-PA) Staffs on March 16, 2023 on NIEHS activities in response to the E. Palestine, OH train derailment.
- **HHS-wide briefing to Congressional Staff on E. Palestine Train Derailment:** On March 23rd, 2023 Dr. Miller and Dr. Collman participated on HHS-wide briefing for Committees of Jurisdiction and Ohio and Pennsylvania Congressional delegations' Staff on the response to the train derailment in E. Palestine, OH and surrounding area to give an update on NIEHS activities in this area. HHS ASL, CDC/ATSDR, FDA, Congressional staff to House Energy and Commerce, House Ways and Means, Senate Health, Education, Labor and Pensions, Senate Finance, Senate Environment and Public Works, PA and OH delegation House and Senate offices were all in attendance.

- **House Ways and Means Staff Briefing on the NIH Climate Change and Health Initiative:** On March 13, 2023, Dr. Woychik, Dr. Bianchi, and Dr. Pérez-Stable briefed the House Ways and Means Minority staff on NIH CCHI and Climate and healthcare research.
- **Senator Vance, Senator Brown, Senator Casey and Senate HELP’s Staff Briefing on E. Palestine Train Derailment:** On April 13th, 2023, Dr. Miller and Dr. Thompson briefed Senator Vance’s (R-OH) Staff, Senator Brown’s (D-OH) Staff, Senator Casey’s (D-PA) Staff and Senate HELP staffers on NIEHS E. Palestine activities, how past disaster research has been funded and the R21 time-sensitive grant process.
- **Senate Majority and House Minority Labor-HHS Appropriations Staff Briefing on the NIH Climate Change and Health Initiative:** On April 17th, 2023, Dr. Woychik, Dr. Pérez-Stable, Dr. Zenk, Dr. Gibbons and Dr. Collman briefed the Staffers on current NIH CCHI progress, the spending plan for the NIH CCHI for FY23 and future plans for the NIH CCHI.

HEARINGS:

- **HHS FY24 Budget Hearings in the Senate and House:**
Sec. Becerra presented and testified on the FY24 HHS Budget to Senate Finance (March 22), Senate Appropriations Subcommittee on Labor-HHS (March 22), House Ways and Means (March 28), House Energy and Commerce (March 28), and House Appropriations Subcommittee on Labor-HHS (March 29). There was a brief mention in his written testimony of the NIH CCHI. Also of interest to NIEHS, Sec. Becerra confirmed to Senator Brown (D-OH) that HHS would continue to support and make E. Palestine a priority even “after the cameras left” during the Senate Finance hearing
- **House Subcommittee on Labor, HHS, Education and related agencies FY24 Budget and Oversight Hearing for the Fiscal Year 2024 Request for CDC, ASPR and NIH:**
On April 19th, House Appropriations Subcommittee on Labor, HHS, Education and related agencies held a hearing on the FY24 Budgets requests for CDC, ASPR, and NIH, with Dr. Tabak, acting NIH Director, testifying for NIH. Chair Aderholt (R-AL-4) called out climate change as one of the “partisan” priorities in the President’s Budget in his opening statement. Of interest to NIEHS, Dr. Tabak received a question from Congresswoman Watson-Coleman on endometrial cancer and health disparities. His response included the [recent NIEHS study](#) that found women that used chemical hair straightening products had a higher incidence of endometrial uterine cancer compared to those who don’t use those products. He caveated that we need to do more research to see if it merely an association or if there’s some causality involved. Other topics at the hearing for NIH included:
 - COVID pandemic response,
 - Gun violence research
 - ARPA-H
 - Cancer Moonshot
 - Alzheimer’s
 - Opioid Misuse Research
 - ALS

- HIV
- Nutrition Science
- Diabetes
- Heart Disease
- What cuts in funding would do to NIH funding of grants
- Clinical and Translational Science Award program to advance clinical trial capability
- Uterine Cancer
- Career paths for people entering postdoc training and beyond
- Expanding clinical trials in rural communities
- Cancer Moonshot
- Pediatric vaccinations recommendations
- COVID vaccines
- Indirect cost rates for grants
- Drug pricing
- Wuhan Institute of Virology and gain of function research
- Origin of COVID-19
- GAO findings about NIH's administration of the EcoHealth Alliance grant and Wuhan Institute of Virology subgrant
- Funding in other countries (including China)
- Future pandemic research
- New funding mechanisms
- Challenge prizes and
- ARPA-H to spur innovation
- Universal flu vaccine
- Should studies enroll by sex or gender

- **Senate Subcommittee on Labor, HHS, Education and related agencies review of the President's FY24 funding request and budget justification for NIH:**

On May 4th, 2023, Dr. Tabak accompanied by Dr. Lowey (NCI), Dr. Joshua Gordon (NIMH), Dr. Hodes (NIA), and Dr. Volkow (NIDA) testified at a hearing of the Senate Appropriations Subcommittee on Labor, HHS, Education and related agencies on the FY24 President's Budget request for NIH. Topics covered in the hearing included:

- Alzheimer's disease
- Maternal mortality
- Opioid epidemic
- Universal flu vaccine
- Health disparities
- Sexual Harassment by NIH funded scientists
- Cancer Moonshot
- Diabetes
- Mental Illness/Health
- Childhood Cancer/STAR Act
- ARPA-H
- IDEA program
- ECHO
- What potential \$10 billion cut would mean for NIH research
- Potential stricter oversight of federally funded research on dangerous pathogens
- Parkinson's Disease
- Long COVID
- Vaccine research
- Marijuana use and psychiatric disorders
- Brain tumors
- Gun Violence
- Down Syndrome
- HEAL Initiative
- INCLUDE Initiative
- Youth Mental Health Crisis
- Social Media/Screen time Use and Youth
- Increase representation of Native Hawaiians in research
- Psychedelic research
- Rural research
- Diversity/Race Neutrality/Inclusiveness
- NIH opportunities for new and early stage researchers
- NIH public relations and communications services contracts cost

Other Items:

NIEHS participated in a Federal Round Table on Low Dose Radiation near Nuclear Power Plants on February 14th, a matter of interest to Congress. Dr. Doetsch, NIEHS Deputy Scientific Director and Senior Investigator of the Mutagenesis and DNA Repair Regulation Group, helped plan the Round Table with NCI and NIAID. Dr. Doetsch, Dr. Newton and Ms. Bennett attended the Round Table for NIEHS.

Staff Updates

David Balshaw, Ph.D., has been selected as the Director of the NIEHS Division of Extramural Research and Training (DERT). Throughout his 20-year career with the NIEHS, Dr. Balshaw has proven his ability to manage substantial financial resources, oversee a comprehensive environmental science research portfolio, and most importantly, work with and for his DERT colleagues who make it possible for the NIEHS to achieve our collective mission. Dr. Balshaw is a biophysicist with a Ph.D. from the Department of Pharmacology and Cellular Biophysics at the University of Cincinnati and received his post-doctoral training in the Department of Biochemistry and Biophysics at the University of North Carolina.

Robert Sills, D.V.M., Ph.D., has been selected as the acting Scientific Director (SD) of the Division of Translational Toxicology (DTT). For the last 30 years, Dr. Sills has served the NIEHS with subject matter

expertise in comparative and molecular pathology research and has spent the last 15 years as Chief of the Comparative and Molecular Pathogenesis Branch (CMPB) in the DTT. As Chief, Dr. Sills has insured that CMPB provided state of the science pathology expertise, managed pathology core laboratories efficiently and supported laboratory animal medicine innovations at DTT/NIEHS. Dr. Sills obtained his D.V.M. from Tuskegee University in 1984, after which he participated in an internship in anatomical pathology. He then completed a combined residency/Ph.D. in toxicologic pathology at Michigan State University. He is also a Diplomate of the American College of Veterinary Pathologists and a Fellow of the International Academy of Toxicologic Pathologists.

Paul Wade, Ph.D., has been named the new Chief of the Epigenetics and Stem Cell Biology Laboratory (ESCBL). Dr. Wade received his PhD in Molecular, Cellular and Developmental Biology at Indiana University followed by postdoctoral studies at NICHD where he studied protein complexes involved in chromatin remodeling and histone acetylation. He was recruited to NIEHS in 2004 as the head of the Eukaryotic Transcriptional Regulation group. Dr. Wade was awarded tenure at NIEHS in 2009 and became Deputy Chief of the Laboratory of Molecular Carcinogenesis in 2013. Dr. Wade's research program studies how transcription factors penetrate the chromatin barrier to form new enhancers. His group also investigates how environmental factors, including diet, influence disease risk through modulation of the epigenome.

Strategic Plan Update

A virtual Stakeholder Community Workshop was held April 11, 12, and 13 to help develop the 2024-2028 NIEHS Strategic Plan. Over 400 members of the NIEHS community, including junior and senior faculty, advocacy groups, other government agencies, community groups, etc., covering a variety of disciplines were invited to participate in the two and a half day meeting. Over 160 individuals accepted the invitation and more than 100 individuals participated in the workshop. During the workshop, the participants identified more than 60 existing and emerging issues and opportunities that could be of importance to NIEHS over the next 5 years. These issues were organized into 43 breakout sessions covering a variety of topics from implementation science to climate change and health to DEIA issues.

In addition to the virtual Stakeholder Community Workshop, input was collected through a Request for Information (RFI) that closed on April 20, 2023. The input from the various sources will be analyzed and draft goals will be created for review by the Senior Leadership Committee and circulated to NAEHSC for review and comment. The Plan will then be revised and posted for public comment. The 2024-2028 Strategic Plan is expected to be finalized and published in 2024.

Global Exposome Research Coordination to Accelerate Precision Environmental Health

The overall goal of coordinating a global exposomics effort is to 1) develop a commonly agreed upon framework for exposomics, 2) promote best practices in data collection and sharing, and 3) build a global exposome research community of diversity and inclusion to foster national and international

collaborations. In developing a commonly agreed upon conceptual framework, there are several fundamental questions that must be addressed:

- What are the measurable elements of the exposome based on the state of the science?
- What is the role of animal models and in vitro systems?
- What are the data standards and data infrastructure needs?
- How to apply exposomics to advance precision environmental health at both community and individual levels?

To promote agreed upon technologies/methodologies and best practices, researchers will identify methods that are ready for scaling up and develop performance standards, including methods for data collection, sharing, and analysis; untargeted metabolomics, geospatial exposure modeling, multi-omics integration, AI and machine learning, etc. Other activities include creating quality control materials to facilitate cross-study harmonization, identifying future needs in technology/methodology development, and disseminating standardized methods, best practices, and quality control methods.

Finally, building a global exposome research community includes developing a global governance structure for a Global Human Exposome Network – taking advantage of and connecting to existing exposome research initiatives and infrastructures around the world.

Integrating Geospatial Environmental Exposures into *All of Us*

To meet scientific priorities and goals for precision medicine, *All of Us* will need to integrate individual location and environmental exposure data. This collaboration will lay the groundwork for investigating the health implication of interactions between the exposome and other data types available in the *All of Us* Researcher Workbench. This proposal would be achieved in three interrelated phases that could be developed in parallel.

- Phase 1: Location – Integrate locational information into the *All of Us* Workbench through a decentralized address geocoding tool.
- Phase 2: Geospatial Environment – Plan and develop infrastructure for integrating geospatial environmental and social determinant of the health into the Workbench
- Phase 3: Health – Assay exposures in biospecimens. Conduct a study on the combined genomic, environmental, and social determinants of health.

Awards and Recognition

Carmen Williams, M.D., Ph.D., Deputy Chief of the Reproductive and Developmental Biology Laboratory, was elected **AAAS Fellow**. The lifetime honor is one of the highest distinctions in the scientific community. AAAS is the world's largest general scientific society and publisher of the Science family of journals.

NIEHS grantee **Chuan He, Ph.D.**, has been awarded the prestigious **Wolf Prize** in chemistry for his pioneering discovery of reversible RNA methylation and its role in gene expression. Dr. He is a chemist at

the University of Chicago. Awarded by the Israeli-based Wolf Foundation, the annual prize honors the greatest achievements in the fields of agriculture, chemistry, mathematics, physics, medicine, and the arts. The award was established in 1978 and carries a \$100,000 prize.

FY2022 HHS Green Champion Awards

Award	Category	Recipients
NIEHS Campus Bottle Filler Installation	Environmental Stewardship – Small Group	Marcos Flores, Derrick Vest, Eric Frails, Barry Yancey, Fred Schwartz, Steven Todd Johnson, Greg Westmoreland, Kerri Hartung, Arrash Yazdani
NIEHS Decarbonization Assessment	Energy and Fleet Management – Small Group	Kerri Hartung, Paul Johnson, Steve Novak, Bill Steinmetz, Alexander Santago, Kyle Askins, Bill Blair, Ben Hocutt, Lee Howell, and Greg Leifer
NIEHS Database of Laboratory Equipment for Sharing (DOLES)	Electronic Stewardship – Small Group	Raja Jothi, Ph.D., Kevin Gerrish, Ph. D, David C. Fargo, Ph.D., Cheryl Thompson, Joseph D. Poccia, Justin P. Kosak, Stephanie L. Bishop, Kenneth T. Webb, Tina Berger, Steven R. McCaw

NIEHS Scholars Connect Program Awardees

- Outstanding Scholar Award
 - **Shivani Ayyagari**
 “Evaluation of the Causal Relationship Between PFAS and Lactation Impairment”
 Mentor: Sue Fenton, Ph.D.
 Mechanistic Toxicology Branch
 - **Kyra Varley**
 “Exploring the Intersection of the Effect of Climate Change has on the Health of Pregnant People and Environmental Health Disparities”
 Mentors: Melissa Judd-Smarr, Ph.D. and Claudia Thompson, Ph.D.
 Population Health Branch
- Best Presentation
 - **Thusna Gardiyehewa**
 “Investigating the Effect of Hyaluronan on Ozone-Induced Injury of Bronchial Epithelial Cells”
 Mentors: Vandy Parron, Ph.D. and Stavros Garantziotis, Ph.D.
 Matrix Biology Group
- Summer Connection Poster Presentation (Honorable Mention)
 - **Charles Coleman**
 “Mechanism of Incoming dNTP Binding to the Active Site of DNA Polymerase Mu”
 Mentor: Lalith Perera, Ph.D.

Computational Chemistry & Molecular Modeling Support Group