

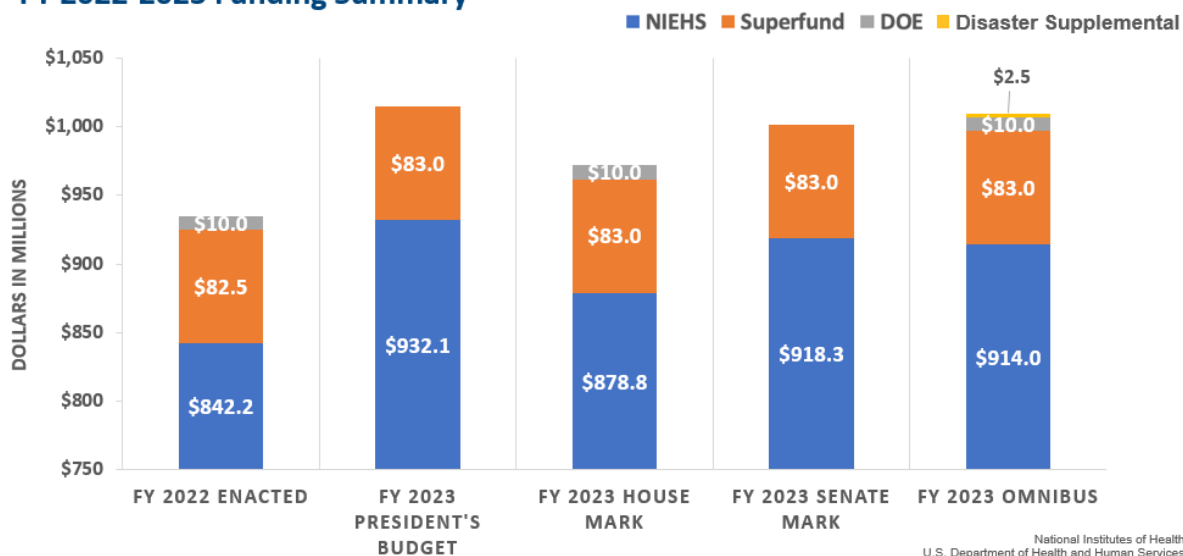
Report to the National Advisory Environmental Health Sciences Council

Director, NIEHS and NTP

February 21, 2023



FY 2022-2023 Funding Summary



Legislative Report

117th CONGRESS (2021-2022):

FY2023 APPROPRIATIONS:

After passing two Continuing Resolutions, on Dec. 22, 2022, the FY23 Omnibus passed the Senate by a vote of 68-29 and then went on to pass in the House by a vote of 221-205-1 on Dec. 23, 2022. Additionally, a third continuing resolution was passed through Dec. 30th to help give time for the 4000+ page bill to be enrolled and signed by the President. The President signed the Omnibus into law on Dec. 29, 2022. The bill included all 12 appropriations bills, authorizing language, and supplemental funding for 2022 disasters and Ukraine.

NIH received \$47.5 billion overall in the FY23 Omnibus, which is a \$2.5 billion or 5.6% increase. A Senate summary of the Labor-HHS bill can be found [here](#).

NIEHS received a **total increase of \$71, 810,000 (or 8.5%) in our Labor-HHS appropriation for a total appropriation of \$913, 979,000**. Of this increase, \$40 million is pledged to the NIH Climate Change and Health Initiative. For the Superfund related programs, NIEHS received **an increase of \$495,000 for a total appropriation of \$83,035,000**, which matched the President's Budget request. NIEHS also received **\$2.5 million** in the Disaster Supplemental Appropriations portion of the Omnibus for the **NIEHS** for major disasters declared in 2022 for WTP.

Omnibus bill Language for NIEHS Labor-HHS FY23 Appropriation (Pg. 1008):

“NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

For carrying out section 301 and title IV of the PHS Act with respect to environmental health sciences, \$913,979,000.”

Omnibus bill Language for NIEHS Superfund related programs FY23 Appropriation (Pg. 888):

“NATIONAL INSTITUTES OF HEALTH/NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

For necessary expenses for the National Institute of Environmental Health Sciences in carrying out activities set forth in section 311(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9660(a)) and section 126(g) of the Superfund Amendments and Reauthorization Act of 1986, \$83,035,000.”

For Disaster Supplementals in the Omnibus for WTP (pg. 1899):

“NATIONAL INSTITUTES OF HEALTH/NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

For an additional amount for “National Institute of Environmental Health Sciences”, \$2,500,000, to remain available until expended, for necessary expenses in carrying out activities set forth in section 311(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9660(a)) and section 126(g) of the Superfund Amendments and Reauthorization Act of 1986 related to the consequences of major disasters declared pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.) in 2022.”

NIEHS Explanatory Statement Language:

FY23 Omnibus Labor-HHS (pg. 69):

“NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

Additional Research- The agreement includes an increase of \$40,000,000 to support research on a wide range of health conditions, which may include infectious disease, and chronic conditions such as asthma, mental health, and health disparities.

*Environmental Exposures and Cancer in Firefighters.-*The agreement encourages NIH and CDC/NIOSH to continue their efforts to better understand the cancer risks firefighters may experience, including efforts to measure environmental exposures in firefighters and determine the mechanisms that lead to increased cancer incidence, morbidity, and mortality. The agreement also encourages NIH to continue to support research to improve health equity among firefighters to evaluate potential differences in exposures and risk.”

FY23 Omnibus Interior and Environment (Superfund) (pg.71):

“NATIONAL INSTITUTES OF HEALTH/NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

The agreement provides \$83,035,000 for the National Institute of Environmental Health Sciences. The Committees continue the \$2,000,000 provided in fiscal year 2022 to further the Institute's work on PFAS and other contaminants of emerging concern. The Institute both leads and supports significant research on PFAS that will result in better remediation outcomes. Further, of the funds provided, not less than \$1,750,000 shall be to support risk reduction for Native Americans to hazardous metals mixtures from abandoned uranium mine waste.

Summary of Authorizations of potential interest in the FY23 Omnibus:

- Preparing for and Responding to Existing Viruses, Emerging New Threats, and Pandemics (PREVENT Pandemics Act)
 - Aims to improve public health preparedness and response capacity, strategy and coordination between federal agencies and public health preparedness agencies.
 - Aims to foster research and countermeasure development, and improve research coordination
 - Aims to improve biosafety and biosecurity
 - Prevents undue foreign influence in biomedical research
 - ARPA-H Authorization
 - Establishes ARPA-H Within NIH.
 - ARPA-H offices are to be in no less than 3 geographic locations, none on any of NIH's campuses.
- GAO report on certain research requirements Animal research.
 - GAO to conduct a review to assess the extent to which relevant research conducted or supported by NIH meets Federal animal research requirements pursuant of the Public Health Service Policy on Humane Care and Use of Laboratory Animals.
- Reauthorization of NIH's Best Pharmaceuticals for Children Act Program for 5 years.

LEGISLATION:

FY23 National Defense Authorization Act (NDAA) was signed into law on December 23, 2022.

Provisions of interest to NIEHS:

- **Treatment of Perfluoroalkyl Substances and Polyfluoroalkyl Substances Section (pg. 134 of enrolled bill):**
 - **Section 341** – Department of Defense Research Relating to Perfluoroalkyl Substances and Polyfluoroalkyl Substances
 - Mandates the DoD publish regular updated information concerning research efforts related to PFAS substances
 - **Section 342** – Increase of Transfer Authority for Funding of Study and Assessment on Health Implications of Per- and Polyfluoroalkyl Substances Contamination in Drinking Water by Agency for Toxic Substance and Disease Registry
 - Authorizes the DoD to transfer not more than \$20 million during FY23 to HHS to pay for the study and assessment on PFAS health implications
 - **Section 346** – Annual Report on PFAS Contamination at Certain Military Installations from Sources Other than Aqueous Film Forming Foam
 - Mandates an annual report on any known or suspected contamination on or around military installations located in the US resulting from the release of any PFAS substance originating from a source other than aqueous film-forming foam.
- **Sec. 5305 Fairness for Federal Firefighters (pg. 857 of enrolled bill)**
 - **§ 8143b. Employees in fire protection activities**
 - NTP is listed as “available expertise” through their “recommendations, risk assessments, and scientific studies” that the DOD Secretary “may accept as authoritative, and may rely upon” to help add to the established initial list of “Certain illnesses and diseases deemed to be proximately caused by employment in fire protection activities.”

S. 231 PFAS Act: On Dec. 20, 2022, the President signed S. 231, the PFAS Act, into law. The legislation was introduced by Sen. Gary Peters (D-MI) to requires the Department of Homeland Security (DHS) to

develop guidance for firefighters and other emergency response personnel on training, education programs, and best practices to protect them from exposure to perfluoroalkyl and polyfluoroalkyl substances, commonly referred to as PFASs, from firefighting foam and to prevent the release of PFASs into the environment. Of interest to NIEHS: The Administrator of the U.S. Fire Administration will make recommendations for the curriculum by consulting with interested entities, such as “(C) scientists, including public and occupational health and safety experts, who are studying PFAS and PFAS alternatives in firefighting foam.”

BRIEFINGS:

Climate Change and Health Briefings: This past Fall, Dr. Woychik, members of the NIH Climate Change and Health Initiative Executive Committee, and NIH CCH Working Group Leaders met with Staff in the House and Senate to educate them about the NIH Climate Change and Health Initiative:

- **September 27, 2022:** House Select Committee on the Climate Crisis’ Staff: Dr. Woychik (NIEHS), Dr. Gibbons (NHLBI) and Dr. Bianchi (NICHD)
- **September 27, 2022:** Majority and Minority Staffs of the House and Senate Appropriations Committees’ Interior and Environment Subcommittees: Dr. Woychik and Dr. Collman (NIEHS)
- **October 4, 2022:** Congressman Harder’s (D-CA) Staff: Dr. Woychik (NIEHS), Dr. Zenk (NINR) and Dr. Perez-Stable (NIMHD)
- **October 11, 2022:** Senator Collins’ (R-ME) Staff: Dr. Woychik (NIEHS), Dr. Gordan (NIMH) and Dr. Gibbons (NHLBI)
- **November 30, 2022:** Senator Schatz’s (D-HI) Staff: Dr. Collman (NIEHS), Dr. Miller (NIEHS), Dr. Rosenthal (FIC)
- **December 14, 2022:** Senator Heinrich’s (D-NM) Staff: Dr. Woychik (NIEHS), Dr. Gordan (NIMH) and Dr. Gibbons (NHLBI)

118th CONGRESS (2023-2024)

118th CONGRESS COMMITTEE LEADERSHIP

The following table outlines the chairs and ranking members of the House and Senate committees and subcommittees in the new 118th Congress with jurisdiction over NIEHS authorities and programs:

House Appropriations Committee	Senate Appropriations Committee
<i>Chairwoman:</i> Kay Granger (R-TX-12) <i>Ranking Member:</i> Rosa L. DeLauro (D-CT-03)	<i>Chair:</i> Patty Murray (D-WA) <i>Vice Chairman:</i> Susan Collins (R-ME)
House Labor, HHS, Education and Related Agencies Appropriations Subcommittee	Senate Labor, HHS, Education and Related Agencies Appropriations Subcommittee
<i>Chairman:</i> Robert Aderholt (R-AL-04) <i>Ranking Member:</i> Rosa L. DeLauro (D-CT-03)	<i>Chair:</i> Tammy Baldwin (D-WI) <i>Ranking Member:</i> Shelley Moore Capito (R-WV)
House Interior, Environment and Related Agencies Appropriations Subcommittee	Senate Interior, Environment and Related Agencies Appropriations Subcommittee
<i>Chairman:</i> Mike Simpson (R-ID-02) <i>Ranking Member:</i> Chellie Pingree (D-ME)	<i>Chairman:</i> Jeff Merkley (D-OR) <i>Ranking Member:</i> Lisa Murkowski (R-AK)

House Energy and Commerce (E&C) Committee <i>Chair:</i> Cathie McMorris Rodgers (R-WA-05) <i>Ranking Member:</i> Frank Pallone, Jr. (D-NJ-06)	Senate Health, Education, Labor and Pensions (HELP) Committee <i>Chairman:</i> Bernie Sanders (I-VT) <i>Ranking Member:</i> Bill Cassidy (R-LA)
House E&C Subcommittee on Health <i>Chairman:</i> Brett Guthrie (R-KY-02) <i>Ranking Member:</i> Anna G. Eshoo (D-CA-16)	Senate Environment and Public Works (EPW) Committee <i>Chairman:</i> Thomas R. Carper (D-DE) <i>Ranking Member:</i> Shelley Moore Capito (R-WV)
House E&C Subcommittee on Environment, Manufacturing and Critical Minerals <i>Chairman:</i> Bill Johnson (R-OH-06) <i>Ranking Member:</i> Paul D. Tonko (D-NY-20)	Senate EPW Chemical Safety, Waste Management, EJ and Regulatory Oversight Subcommittee <i>Chairman:</i> Jeff Merkley (D-OR) <i>Ranking Member:</i> Markwayne Mullin (R-OK)

BRIEFINGS:

House Majority Interior and Environment Subcommittee staff briefing: On February 6th, 2023, Dr. Woychik accompanied by Dr. Balshaw, Dr. Heacock, and Ms. Beard gave the staffer an overview of NIEHS and the NIEHS Superfund related programs to the new House Majority Interior and Environment Subcommittee staffer, Ms. Sarah Peery.

NIEHS 2024-2028 Strategic Plan Update

The 2017-2023 Strategic Plan is organized across three Strategic Themes, which can be loosely thought of as NIEHS’s fundamental research mission, applied or translational research mission, and stewardship and support mission which enables the success of the entire enterprise and promotes trust and accountability.

Beginning in 2019, all IC strategic plans must follow the NIH Common template. While the format is flexible, each plan going forward must include some common elements: overview and introduction, scientific goals/objectives/priorities, approach to stewardship, and description of the strategic planning process. The Strategic Themes in the Plan organization translate well to the Common Template, considering the first two Themes (Advancing Environmental Health Sciences and Promoting Translation) as both being part of the overall Scientific Strategy. Theme Three aligns with the Stewardship Strategy. The other components of the template bookend these sections, with the introduction, mission, statutory authority, and Director’s Message opening the document and the description of the process at the end.

In continuing with past plans, the new Plan will have a robust input phase. The initial input phase will go through Spring 2023. An online solicitation requesting input on our work under the current Plan is currently open at https://www.research.net/r/insights_opportunities. There is special emphasis on reviewing the existing goals and priorities and asking stakeholders to identify continuing priorities as well as gaps and also places where the science has moved beyond the framing used in 2018. The link will

be open until April 20. A virtual Open Space format meeting is being planned for mid-April. Additional sources of information will include workshops, Council discussions, and other meetings.

Once the inputs have all been collected, the internal planning committee, with help from subject matter experts from across NIEHS, will summarize and analyze the information, coalescing it into revised or new goals and priorities within the strategy boundaries in the template, which will take several months. The process is iterative between the Planning Committee and the Institute's Senior Leadership group. The timeline calls for draft goals to be ready to circulate to the Council in late summer/early fall 2023.

Following the review of the draft goals by Council, there will be a wider review, and a near-final draft will be released for public comment. This additional input will be taken into consideration when determining if further revision of the plan is needed. The plan should be finalized and published in early 2024.

Emerging Science for Environmental Health Decisions

The National Academies of Science Engineering, and Medicine Standing Committee on Emerging Science for Environmental Health Decisions (ESEHD) was established in 2008 with joint support from NIEHS and the Environmental Protection Agency, built on Toxicology and the 21st Century and efforts to integrate emerging technology into the regulatory decision-making process. Over time, the focus of the standing committee has shifted away from a specific regulatory impact to greater use of emerging science in the environmental health sciences. ESEHD workshops have been seminal in building several new areas of environmental health, such as the exposome, environmental epigenetics, predictive/computational toxicology, microphysical systems, etc.

Historically, ESEHD has focused on incorporating new approaches into environmental health research. NIEHS is now placing a priority on making the environmental health sciences more relevant to other research domains, integrating environmental health research into the biomedical research enterprise.

Exposomics

In summer 2022, a series of six virtual workshops, "Accelerating Precision Environmental Health: Demonstrating the Value of the Exposome", were held by NIEHS to address challenges and opportunities in exposome research and explore paths forward. The workshop series attracted more than 400 unique participants from around the globe and a wide range of topics were raised regarding how to operationalize exposomics. These largely fall into five themes and 10 high priority areas:

- 1) what to measure in an exposome study
 - a. What should we measure in population studies
 - b. Use animal and in vitro models to prioritize measurements
- 2) how to measure the exposome
 - a. standardize and scale up exposome measurements
 - b. map the exposome
- 3) how to share and harmonize data
 - a. harmonize data across studies (both epidemiology and basic biology)
 - b. create and sustain interoperable data repositories
- 4) how to integrate, analyze and interpret exposome data
 - a. use AI/ML to integrate diverse and high dimensional data

- b. incorporate social, chemical, and biological knowledge into interpretation
- 5) how to translate the results to make positive impacts on health at both the population and individual levels.
 - a. Address health disparity and improve public health
 - b. Advance individualized intervention and prevention

A special issue of the journal *Exposome* will feature several articles reporting on the major outcomes of the workshop series, covering the following topics:

- how do you define an exposome study; what are the key elements
- how to develop a federated data ecosystem for exposomics
- how to use community-level exposomics to address health disparities and (in)equity
- how to use advanced data science approaches (e.g, machine learning) to conduct exposome-wide association studies (ExWAS)
- the role of nutrition and pharmacology/toxicology in exposomics

Exposomics requires interdisciplinary collaboration and global coordination. A research concept has been developed entitled “Global Exposome Research Coordination to Accelerate Precision Environmental Health.” Additionally, two symposia are being planned by the workshop participants to continue the discussion in how to operationalize exposomics at the International Society of Exposure Science Annual Meeting in Chicago August 27-31.

Collaborations

NIEHS-NCI Cancer and the Environment Working Group

The NIEHS-NCI Cancer and Environment Working Group (CEWG) is a sustained collaboration between NIEHS and NCI at the interface of cancer and the environment, including:

- Information sharing about institute activities via monthly meetings
- Joint planning of events and workshops
- Joint development of concepts and initiatives
- Coordination of research planning within NIH and with federal partners

Michelle Heacock and Ron Johnson are the current co-chairs of the working group.

Integrating Environmental Data With Other Omics for Cancer Epidemiology was the first workshop held by the CEWG. The virtual workshop was held February 14-15 with the purpose of identifying the challenges and opportunities related to the integration of environmental exposure data with other omics data for human cancer population studies and informing future supported research directions for NIEHS and NCI. The goals of the workshop include:

- 1) multi-omics (with phenotypic and environmental exposure data) integration to identify molecular “profiles” for disease states
- 2) develop generalizable data harmonization, integration, and analysis methods, and best practices and standards for multi-omics application
- 3) create a public multi-dimensional dataset

A second workshop is currently being planned. Molecular Signatures of Exposures in Cancer will be held June 29-30. The workshop will bring together computational biologists, epidemiologists, exposure scientists, and cancer researchers to identify key questions, knowledge gaps and opportunities for the

field. Still in the planning stages, it is taking a deeper dive into how we establish exposure-specific patterns in other omics signatures to better understand environmental exposures and link them to cancer. The workshop is being led by Phil Daschner (NCI), Michelle Heacock (NIEHS), Ron Johnson (NCI), Somdat Mahabir (NCI), Arun Pandiri (NIEHS), Dan Shaughnessy (NIEHS).

Telomere Research Network Update

The Telomere Research Network is a collaborative project funded through a set of cooperative agreements (U24 and U01's) by the National Institute on Aging (NIA) and the National Institute of Environmental Health Sciences (NIEHS). The primary goals of this international network are to: enhance collaborative efforts directed at the comparison of existing and novel methods of telomere measurement applicable to population studies by the U01 laboratories and other network affiliate researchers; coordinate the development and dissemination of best practices for telomere measurement and provide resources to the field; invest in innovative pilot projects addressing important gaps in telomere research, and support an interdisciplinary network of scientists focused related to advancing research related to telomeres as sentinels of environmental exposure, psychosocial stress, and disease susceptibility.

The initial work of the TRN focused on addressing concerns related to methodologic factors that influence telomere length measurement precision and establishing clear expectations for careful consideration of study design when selecting existing methods for human population studies. Moving forward, the TRN expects to serve as a bridge between scientists examining telomere length and dynamics in relation to human population health and those studying basic and translational telomere biology. Through the dissemination of best practices, study design recommendations, and continued transparent dialogue, the TRN expects to perpetuate high impact rigorous repeatable scientific discovery and discourse on the role of telomere dynamics in relation to psychosocial stress, environmental exposures, and human health, disease, and aging.

As part of the goals of the TRN, an annual meeting will be held at the NIEHS on March 30, 31, 2023. The meeting will provide a forum to define the key variables related to methodologic precision in telomere length measures and understand the multiple factors contributing to the need for significant sample sizes and careful monitoring of biologic sources in human population studies of telomere dynamics. This two-day hybrid interactive meeting and workshop will present the results of the Telomere Research Network focused on the evaluation of telomere length as an indicator of psychosocial stress and a predictor of health and disease relevant for human population studies. Presentations will provide researchers using telomere length measurements with specific recommendations on methodologic precision from an international, multi-method collaborative initiative. Subsequently, the meeting will focus on new research and interactive discussions expected to provide recommendations to the TRN on next critical research gaps in the telomere field and best approaches to enhancing interaction across basic, translational, and clinical research related to telomere dynamics.

Climate and Health Updates

NIH Climate and Health Scholars Program

The NIH has selected eight established scientists with expertise in climate and health to work on the NIH Climate Change and Health Initiative. This inaugural class of NIH Climate and Health Scholars will become part of the cross-cutting NIH effort to reduce health threats from climate change across the lifespan and build health resilience in individuals, communities, and nations around the world, especially among those at highest risk.

- **Luis Fernando Chaves, Ph.D.**
Associate Professor, Department of Environmental and Occupational Health
School of Public Health, Indiana University Bloomington
Host: National Institute of Allergy and Infectious Diseases
- **Lauren Clay, Ph.D.**
Associate Professor and Department Chair, Department of Emergency Health Services
University of Maryland, Baltimore County
Host: National Institute on Minority Health and Health Disparities
- **Ferdouz Cochran, Ph.D.**
Climate-Health Science Lead
Health Innovation Center at MITRE Labs
Host: National Institute of Environmental Health Sciences (NIEHS)
- **Zhen Cong, Ph.D.**
Professor, Environmental Health Sciences, School of Public Health
University of Alabama at Birmingham
Host: National Institute on Aging
- **Carina Gronlund, Ph.D.**
Research Assistant Professor, Survey Research Center, Institute for Social Research
School of Public Health, University of Michigan
Host: National Heart, Lung, and Blood Institute
- **Praveen Kumar, Ph.D.**
Assistant Professor, School of Social Work
Boston University
Host: Fogarty International Center
- **Patrice K. Nicholas, D.N.Sc., D.H.L. (Hon.)**
Distinguished Teaching Professor and Director, Center for Climate Change, Climate Justice,
and Health
Massachusetts General Hospital Institute of Health Professions
Host: National Institute of Nursing Research
- **Leticia Nogueira, Ph.D.**
Senior Principal Scientist
American Cancer Society
Host: National Cancer Institute

Alliance for Community Engagement – Climate and Health (ACE-CH)

The Alliance for Community Engagement – climate and Health (ACE-CH) seeks to empower communities across the US to participate in community-engaged research and to contribute assets to understand factors that contribute to health inequities related to climate change; to measure the needs of the impacted communities across multiple sectors most likely to be affected by climate change; implement

effective strategies to assess community knowledge, attitudes and beliefs about health impacts of climate change and the health co-benefits of climate change mitigation and adaptation; address misinformation and disinformation in the community; and build trust and strong partnerships across various stakeholders that encourage climate change adaptation and mitigation, exchanges knowledge, improves awareness of local climate change issues. The overarching goal of the ACE-CH is to build strong, sustainable, and representative community engagement research partnerships at the intersection of climate change and health across the US. Of the 16 proposals that were received, four were awarded:

- University of Alaska Fairbanks: Alaska Alliance for Community Engagement- Climate and Health (AK ACE-CH)
- University of Colorado School of Public Health: Mountain West ACE-CH Hub: Climate Change Engagement Platform to Support Resilient Rural and Urban Communities
- University of Southern California: Community-driven approaches to Environmental Justice and Health in the Face of the Climate Crisis in Southern California
- Public Health Institute: Climate Health Adaptation and Resilience Mobilizing (CHARM) Lake County Project

Intramural Targeted Climate Change & Health Program (ITCCH)

The Intramural Targeted Climate Change and Health (ITCCH) funding program will provide funds to support research activities for NIH intramural investigators focused on basic and applied research on the health effects of climate change. The ITCCH program will provide a maximum of \$200,000/year of funding for 2 years to support research projects. The researchers funded for FY2023/2024 are included below:

- **Lindsey Criswell, M.D., M.P.H., D.Sc.**
Senior Investigator, NIAMS
“Effects of Wildfire Smoke Exposure on the Epigenome and Health in a Multi-Ethnic Cohort.”
- **Una Grewal, Ph.D., M.P.H.**
Senior Investigator, NICHD
“Climate change and its effects on reproductive health, pregnancy, and birth outcomes”
- **Edward Lakatta, M.D.**
Senior Investigator, NIA
“Effects of Climate change on Cardiovascular Aging and Diseases.”
- **Qing Lan, M.D., Ph.D., M.P.H.**
Senior Investigator, NCI
“The combined effects of extreme climate and air pollution on metabolomic, epigenetic, transcriptomic, and proteomic upper airway and plasma biomarkers related to risk of lung cancer”
- **Emily Ricotta, Ph.D., M.Sc.**
Independent Research Scholar, NIAID
“Analysis of data management capacity in regions with high infectious disease spillover risk.”
- **Dale Sandler, Ph.D.**
Senior Investigator, NIEHS
“Characterizing the role of epigenetic adaptation in the relationship between extreme heat and metabolic dysfunction: A paired human and mouse study.”

NIH Patient-Centered Outcomes Research Trust Fund (PCORTF) Project

Through the Patient Protection and Affordable Care Act, The Patient-Centered Outcomes Research Trust Fund (PCORTF) was established to expand comparative effectiveness research through patient-centered outcomes research. These studies explore the effectiveness of different prevention, diagnostic, and treatment options with consideration of the preferences, values, and questions patients face when making healthcare choices. PCORTF is an HHS/ASPE sponsored portfolio of HHS projects. The annual competition started in 2011, awarding \$3M to each project for 3 years.

The NIH Climate Change and Health Initiative effort led by NIEHS with staff from NHLBI, NICHD, NIA, and external partners successful received funding for *Expanding Climate Change and Health Data Infrastructure to Advance Health Interventions: Linking Health and Environmental Data to Improve Patient and Community Health*. The NIH PCOR project is a deeper dive into the intersection of disaster research response and data integration topics areas of the NIH CCH Initiative Strategic Framework with a focus on wildfires. The project was awarded a total of \$4M over 3 years. The objectives aim to provide a public web-based catalog, standardized datasets, a toolkit, and then apply those resources through an evaluation use case on wildfire-associated health outcomes. The project also incorporates a cross-cutting objective to address end user needs through engagement with stakeholders, evaluation, and dissemination.

Staff Updates

The NIEHS Office of the Scientific Director has appointed **Mercedes (Mercy) Arana, Ph.D.**, to the position of Director of the Office of Fellows' Career Development (OFCD), effective February 26, 2023. Dr. Arana served as the Acting Director of this office starting in September 2022.

After 35 years at NIEHS, **William (Bill) Suk, Ph.D., M.P.H.**, retired as the Director of the NIEHS Hazardous Substance Basic Research and Training Program (Superfund Research Program [SRP]) at the end of December 2023. Dr. Suk came to NIEHS in 1987 to lead SRP following the passage of the Superfund Amendments and Reauthorization Act. Dr. Suk received a B.S. and M.S. in Biology from American University in Washington, D.C., a Ph.D. in microbiology from the George Washington University Medical School, and a Master's in Public Health in health policy and management from the School of Public Health at the University of North Carolina at Chapel Hill.

Awards and Recognition

The American Association for the Advancement of Science (AAAS) has elected **Carmen Williams, M.D., Ph.D.**, to its newest class of fellows. 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. Williams was recognized for her distinguished contributions to reproductive and developmental biology, particularly elucidating the mechanisms underlying fertilization and early mammalian development.

Fred Miller, M.D., Ph.D., received the **2022 Myositis Association Scientific Hero Award**. This new award was established this year and he received it at a special dinner event in Washington, DC on October 15, 2022. This award recognized Dr. Miller's contributions to many important scientific advances in myositis,

including his work in the Environmental Autoimmunity Group, and his leadership roles in a number of national and international myositis groups and organizations.

Lisa Rider, M.D., head of the NIEHS Environmental Autoimmunity Group, received the **Excellence in Investigative Mentoring Award** at this year's annual American College of Rheumatology conference, held Nov. 10-14. The Excellence in Investigative Mentoring Award recognizes the importance of the mentor-mentee relationship and the mentor's influence on the successful development and career of mentees. Rider was honored for her outstanding and ongoing mentoring within rheumatology.

2022 NIEHS Fellow of the Year: Ciro Amato III, Ph.D., from Dr. Humphrey Yao's group, Reproductive & Developmental Biology Laboratory

2022 NIEHS Mentor of the Year: Paul A. Wade, Ph.D., Acting Chief and Senior Investigator, Epigenetics and Stem Cell Biology Laboratory

Seventh William G. Coleman Jr., Ph.D., Minority Health and Health Disparities Research Innovation Award. The NIMHD William G. Coleman, Jr., Ph.D., Minority Health and Health Disparities Research Innovation Award is a competitive award program designed to support the development of innovative research ideas and concepts with the potential for high impact in any area of minority health and health disparities research. Eligible awardees include post-doctoral fellows, staff scientists and staff clinicians within the NIH Intramural Research Program.

- **Kaitlyn Lawrence, Ph.D.**, National Institute of Environmental Health Sciences
- **Rupsha Singh, Ph.D.**, National Institute of Minority Health and Health Disparities
- **Jennifer Woo, Ph.D., M.P.H.**, National Institute of Environmental Health Sciences

Shanshan Zhao, Ph.D., Principal Investigator in the DIR Biostatistics and Computational Biology Branch (BCBB), has attained NIH tenure.

Kelly Ferguson, Ph.D., M.P.H., Investigator in the Perinatal and Early Life Epidemiology Group, has attained NIH tenure.

Amanda Armijo, D.V.M., Ph.D., of the Massachusetts Institute of Technology (MIT), was selected as the 25th recipient of the **Karen Wetterhahn Memorial Award**. This award from the NIEHS Superfund Research Program (SRP) recognizes an outstanding graduate student or postdoctoral researcher who exemplifies characteristics of the award's namesake. Armijo received the award December 15 at the SRP Annual Meeting in Raleigh, North Carolina.

Tamarra James-Todd, M.P.H., Ph.D., the Mark and Catherine Winkler Associate Professor of Environmental Reproductive Epidemiology at the Harvard T.H. Chan School of Public Health, received the **2022 Alice Hamilton Award** for her leadership in the area of environmental exposure and women's health.

Francine Laden, M.S., Sc.D., professor of environmental epidemiology at the Harvard T.H. Chan School of Public Health, received the **Marianne Wessling-Resnick Memorial Mentoring Award** for her commitment to service and mentorship. The award honors the memory of Wessling-Resnick, who received the 2019 CAWF Mentoring Award just six and a half months before she passed away at 61.

SOT Awards

- **Achievement Award**
John Daniel Clarke, Ph.D.
Washington State University, Spokane, WA
- **Arnold J. Lehman Award**
Elaine M. Faustman, Ph.D., D.A.B.T., A.T.S.
University of Washington, Seattle, WA
- **Distinguished Toxicology Scholar Award**
Anumantha G. Kanthasamy, Ph.D.
University of Georgia, Athens, GA
- **Education Award**
Bevin Page Engelward, Sc.D.
Massachusetts Institute of Technology, Cambridge, MA
- **Leading Edge in Basic Science Award**
Irfan Rahman, Ph.D.
University of Rochester Medical Center, Rochester, NY
- **Public Communications Award**
Jamie C. DeWitt, Ph.D.
East Carolina University, Greenville, NC
- **Toxicologist Mentoring Award**
Robyn Leigh Tanguay, Ph.D.
Oregon State University, Corvallis, OR
- **Translational Impact Award**
Kjersti Aagaard, M.D., Ph.D.
Baylor College of Medicine, Houston, TX
- **Undergraduate Educator Award**
Lauren M. Aleksunes, Pharm.D., Ph.D., D.A.B.T.
Rutgers, The State University of New Jersey, Piscataway, NJ

Thank you to the Council members who are completing their term on the National Advisory Environmental Health Sciences Council:

- **Lynn R. Goldman, M.D., M.P.H., M.S.**
Michael and Lori Milken Dean of Public Health
Milken Institute School of Public Health
George Washington University
- **Terrance J. Kavanagh, Ph.D., D.A.B.T., FSFRBM**
Professor
Department of Environmental & Occupational Health Sciences
University of Washington
- **Marla del Pilar Pérez-Lugo, Ph.D.**
Professor
Department of Sociology
University of Texas Rio Grande Valley