



2024 NIH ENVIRONMENTAL JUSTICE SCHOLARS INSTITUTES, CENTERS, AND OFFICES (ICO) INTEREST STATEMENTS

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All of Us Research Program (All of Us) and the National Institute of Environmental Health Sciences (NIEHS)

Environmental justice means "the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other federal activities that affect human health and the environment so that people: 1) are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and 2) have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices" (EPA 2024).

Further, environmental justice and health research places a critical intersectional lens on health inequities in populations historically underrepresented in biomedical research.

The All of Us Research Program (All of Us) is an innovative precision medicine research initiative building a robust data ecosystem from 1 million or more engaged participants. This rich resource integrates genomics, electronic health records, and many other data types to inform and build tools for thousands of studies on a variety of health conditions.

All of Us is uniquely positioned to empower research in environmental justice and health for two reasons. First, All of Us recruits participants from across the U.S., encompassing diverse urban, suburban, and rural areas. This geographic diversity will be crucial in evaluating the heterogenous environmental justice health issues across the country. Second, more than 81% of participants in the All of Us program are from underrepresented groups to address the historical lack of diversity in biomedical research.

All of Us and <u>NIEHS</u> seek an Environmental Justice (EJ) Scholar to advance environmental justice health research in diverse populations and settings and inform public health.

The All of Us Division of Medical and Scientific Research works closely with collaborators to design interdisciplinary scientific programs that bring new data, tools, and other resources to All of Us, enhancing its ability to support novel research. This group is currently working with NIEHS to incorporate environmental and exposomic data into the All of Us Researcher Workbench. A National Institutes of Health (NIH) EJ Scholar will apply their expertise to several opportunities:

- 1. To work with participants and experts to determine how to responsibly provide and return environmental results or other exposure-related resources to participants.
- 2. To continue to identify high-priority environmental justice health data for integration with the All of Us dataset.
- 3. To build analytical tools and trainings for integration into the growing All of Us resources for future research.



The EJ Scholar would work closely with, and be mentored by, personnel from All of Us, NIEHS, and other NIH Institutes and Centers to design studies aimed at gathering valuable information about participants' exposome, epigenome, and environmental health histories. The scholar would serve as a subject matter expert and key collaborator to conduct research, prepare publications, promote innovative research opportunities, facilitate new partnerships, and gather and interpret expert input. The exact focus of the scholar's work is flexible and will be subject to their interests, background, and expertise.

Fogarty International Center (FIC)

The Fogarty International Center (FIC) is dedicated to advancing the NIH mission by supporting and facilitating global health research conducted by U.S. and international investigators, building international partnerships, and training the next generation of scientists to address global health needs. The FIC Division of International Science Policy, Planning and Evaluation, Center for Global Health Studies (CGHS), is seeking a scholar with experience and an interest in environmental justice research in low- and middle-income countries (LMICs).

CGHS identifies emerging research priorities, stimulates new scientific directions in global health, and supports multidisciplinary collaboration and short-term training to address pressing global health problems. Given the disproportionate impact of environmental exposures and burdens on vulnerable populations in LMICs, CGHS is interested in a scholar who can highlight unique health research and research training opportunities with respect to environmental justice in these settings. For example, a scholar could focus on:

- Leveraging implementation science to advance environmental justice in LMICs.
- Understanding participatory research designs and community-engaged research strategies specific to populations particularly at risk.
- Identifying gaps in research capacity to address health and environmental justice in LMICs.
- Elevating unique environmental health challenges in humanitarian crisis settings that affect the most vulnerable.
- Articulating research priorities related to resilience through an environmental justice lens.

Regardless of focus area, FIC is keen for a scholar to highlight opportunities for cross-learning between LMICs and the U.S. to enhance the development and/or implementation of interventions in both settings. Potential aspects of a scholar's work could include desktop research, a literature review, consultations with U.S. and low- and middle-income country scientists, a workshop or webinar for NIH staff, a scientific publication, and/or a research agenda that highlights gaps and opportunities in LMICs.



National Institute on Aging (NIA)

The National Institute on Aging (NIA) leads a broad scientific effort to understand the nature and impacts of aging and Alzheimer's Disease (AD) and AD-Related Dementias, and to extend the healthy, active years of life. The institute's program priorities include supporting research to investigate the full range of environmental factors (e.g., physical, chemical, social, psychological, economic, toxicological, etc.) that impact the health and resilience of older adults. This approach includes ways to reduce health disparities and inequities, as outlined in the NIA Health Disparities Research Framework.

NIA welcomes proposals from scholars engaged in work to understand the behavioral, biological, chemical, socioecological, and toxicological processes related to environmental factors that affect older adult health and well-being, as examined in humans, animals, and/or systems serving this population (e.g., health care infrastructure and delivery, best practices for health care providers and caregivers, etc.).

A scholar placed at NIA will help inform the institute's development of programmatic activities related to the exposome, and impacts on the health and well-being of mid- to late-life populations, and those systems and individuals who care for them. The scholar may be positioned within one or more of NIA's Research Divisions or Offices. They will work collaboratively with a dynamic multidisciplinary team of NIA staff engaged in this effort that allows for a comprehensive understanding of the multifaceted impacts of environmental factors on older adult health. Through this collaborative effort, NIA aims to foster a greater understanding of the challenges faced by older adults in the context of environmental exposures across the life course, to enhance resilience, and to develop effective strategies for promoting their health and well-being.

National Institute of Allergy and Infectious Diseases (NIAID)

The mission of the National Institute of Allergy and Infectious Diseases (NIAID) is to conduct and support basic and applied research to better understand, treat, and ultimately prevent infectious, immunologic, and allergic diseases. NIAID advances the understanding, diagnosis, and treatment of many of the world's most intractable and widespread diseases. For more than 60 years, NIAID research has led to new therapies, vaccines, diagnostic tests, and other technologies that have improved the health of millions of people in the U.S. and around the world. NIAID also has a unique mandate, that requires the institute to respond to emerging public health threats. Toward this end, NIAID manages a complex and diverse research portfolio that aims to do the following:

- Expand the breadth and depth of knowledge in all areas of infectious, immunologic, and allergic diseases.
- Develop flexible domestic and international research capacities to respond appropriately to emerging and reemerging disease threats at home and abroad.



NIAID is interested in an EJ Scholar who will explore how environmental conditions, such as urbanization, industrialization, agriculture, climate variability, and exposure to environmental risks (e.g., pathogen contamination or pollution), could potentially influence pathogen dynamics, pathogen transmission, host susceptibility, disease outcomes, and relevant social determinants of health, among human populations, especially those from disadvantaged communities. The scholar could apply their expertise in analyzing relevant datasets, reviewing current literature, consulting with staff across NIAID, preparing seminar/webinar presentations, organizing workshops, and conducting other activities that will contribute to our understanding of the impact of environmental factors on infectious and immune-mediated disease dynamics and outcomes in disadvantaged human populations.

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

The mission of National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) is to support research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases; the training of basic and clinical scientists to carry out this research; and the dissemination of information on research progress in these diseases. NIAMS recognizes the evergrowing impact that environmental exposures and climate change have on rheumatic, musculoskeletal, and skin diseases. Importantly, these exposures and changes often have disproportional negative impacts on marginalized communities. This is due to both increased frequency of deleterious exposures as well as inequitable remediation of the health impacts of these exposures.

NIAMS is interested in candidates with expertise in environmental justice related to one, or more, of its scientific core mission areas:

- 1. Systemic Rheumatic and Autoimmune Diseases
- 2. Skin Biology and Diseases
- 3. Bone Biology and Diseases
- 4. Muscle Biology and Diseases
- 5. Joint Biology, Diseases, and Orthopaedics

NIAMS conducts and supports research from basic to clinical and translation research on the normal structure and function of bones, joints, muscles, and skin. More details about supported areas can be found here: https://www.niams.nih.gov/grants-funding/funding-opportunities/supported-scientific-areas.

Our interest in an EJ Scholar is in line with NIAMS's broader engagement in efforts to understand the interaction of human biology and environmental exposures, from toxicants to diet to environmental exposures, termed the "human exposome" (defined as the measure of all the exposures of an individual lifetime and how those exposures relate to an individual's health, see: https://grants.nih.gov/grants/guide/notice-files/NOT-OD-23-112.html). Consequently, interested



candidates are encouraged to focus on any element within the human exposome as it relates to health equity. Additionally, interested candidates may focus on the unequal impact of climate change-related exposures on diseases within NIAMS's mission, coinciding with NIAMS's larger interest in the impact of climate change on NIAMS's disease areas.

An EJ Scholar will help inform the development of future NIAMS activities and help identify research gaps within our mission areas. The EJ Scholar will meet regularly with program officials, gain an understanding of NIAMS and NIH policy, and work with NIAMS stakeholders.

Potential projects include, but are not limited to:

- Leading the development of a literature landscape scan/analysis to identify key gaps and opportunities related to diseases in the NIAMS mission areas and environmental justice.
- Leading the development of a white paper on current environmental health disparities in diseases in the NIAMS mission areas and potential roles that NIAMS and other ICOs can play in addressing these disparities.
- Planning and organizing a workshop or information gathering session on current environmental health disparities related to a NIAMS-relevant disease.

Questions: Contact Isaah Vincent, Ph.D., at isaah.vincent@nih.gov

National Institute of Dental and Craniofacial Research (NIDCR)

The mission of the National Institute of Dental and Craniofacial Research (NIDCR) is to advance fundamental knowledge about dental, oral, and craniofacial (DOC) health and disease and translate these findings into prevention, early detection, and treatment strategies that improve overall health for all individuals and communities across the lifespan. The NIDCR Strategic Plan 2021-2026 lays out strategic priorities and objectives, including:

- Integrate oral and general health with an emphasis on environmental factors and social determinants that influence health and disease in individuals, within families, and in communities.
- 2. Translate and implement with an emphasis on biological, behavioral, social, environmental, and commercial determinants of health that contribute to disparities and inequities in the delivery of oral health care.

NIDCR invites proposals from EJ Scholars to conduct activities to address these strategic priorities, including but not limited to: bidirectional relationship between nutrition/food security and oral health; impact of maternal environmental exposures to pregnancy outcomes and child health; environmental challenges to science dissemination and implementation in underserved populations; and interplay of biological, social, and environmental risk factors in neglected oral diseases such as noma. The scholar may choose from a broad variety of activities to attain their project goals, for example: promoting environmental justice and oral health topics to attract research, identifying



knowledge gaps and research opportunities, and cultivating collaborations between NIDCR and other NIH ICOs. It is expected that the work of the scholar will sharpen the focus to issues of environmental justice and DOC health and diseases.

National Institute of Environmental Health Sciences (NIEHS)

The National Institute of Environmental Health Sciences (NIEHS) is expanding and accelerating its contributions to scientific knowledge of human health and the environment, and to the health and well-being of people everywhere. Since 1994, the institute has supported numerous research programs, community-engaged activities, and training and education programs to address the disparate health impacts of environmental hazards on disadvantaged communities and ensure environmental health equity. NIEHS remains committed to reducing environmental health disparities as shown in our current Strategic Plan.

In October 2020, NIEHS established the <u>NIEHS Environmental Health Disparities and Environmental Justice (EHD-EJ) Faculty</u> to focus on advancing the institute's priorities in environmental racism, EHD, and EJ. The EHD-EJ Faculty also serves to bring together NIEHS staff members from across the institute to share ideas and identify opportunities to advance our work in EHD and EJ. The faculty has organized two workshops (2021 and 2022) and worked with local EJ organizations to co-host the EJ Action Forum (2023) focused on the Western Electric/Tarheel Army Missile Plant.

The institute is interested in having an EJ Scholar work with the EHD-EJ Faculty to advance its goals and objectives. Activities may include, but are not limited to:

- Developing training activities to build NIEHS staff capacities to work with community residents and organizations. Activities could include creating slide decks, organizing a webinar series, or creating a curriculum for professional development.
- Contributing to the development of an NIEHS EJ action plan that aligns with the NIH EJ Initiative and the U.S. Department of Health and Human Services EJ Blueprint.
- Identifying and promoting EJ tools that could be used by NIEHS staff and creating support materials that enable staff to use them properly and effectively.

The EJ Scholar would be hosted by Joan Packenham, Ph.D., a co-lead for the EHD-EJ Faculty. Packenham also directs the NIEHS Office of Human Research and Community Engagement.



National Institute of Mental Health (NIMH)

At the National Institute of Mental Health (<u>NIMH</u>), the Division of Translational Research (<u>DTR</u>), Center for Global Mental Health Research (<u>CGMHR</u>), and Office for Disparities Research and Workforce Diversity (<u>ODWD</u>) are seeking scholars interested in the intersection of environmental justice and mental health.

The DTR directs, plans, and supports extramural programs of research and research training that translate knowledge from basic science to discover the etiology, pathophysiology, and trajectory of mental disorders and develops effective interventions for children and adults. The CGMHR coordinates the NIMH's efforts to generate knowledge that will improve the lives of people living with or placed at risk for mental illnesses in low- and middle-income countries. The ODWD supports and advances practices that encourage equity in mental health research and address the needs of individuals and communities that are underrepresented and underserved in both research and the workforce.

NIMH is interested in supporting research that addresses equitable access to a healthy, sustainable, and resilient environment conducted with meaningful involvement of communities disproportionately affected by environmental injustice. Potential NIMH target areas include how to accurately measure the mental health burden of climate change and extreme weather events in environmental justice communities, including in longitudinal designs; unique issues related to ecoanxiety (and eco-distress and climate grief) among young people in environmental justice communities; community-engaged strategies for addressing the mental-health sequelae of climate change in environmental justice communities; mental health risks and ways to boost mental health resilience among populations most affected by climate change (i.e., disparities populations in the U.S. and globally), and the design and implementation of mitigation and adaptation strategies to strengthen the resilience of environmental justice communities and the health systems that serve them. Potential scholar activities are varied and could include serving as an environmental justice subject matter expert for the institute, developing extramural programmatic activities, and assisting in the development of NIMH priorities by leading a workshop to advance the science of environmental justice and mental health.

National Institute of Nursing Research (NINR)

The National Institute of Nursing Research's (NINR) 2022-2026 Strategic Plan outlines the institute's vision for supporting science that advances our mission: to lead nursing research to solve pressing health challenges and inform practice and policy — optimizing health and advancing health equity into the future. NINR supports research aligned with our strategic priorities, conducted by scientists from any discipline. NINR is interested in engaging external expertise to inform the planning and development of environmental justice-associated research consistent with NINR's



research lenses: Health Equity, Social Determinants of Health, Population and Community Health, Prevention and Health Promotion, and Systems and Models of Care.

NINR is seeking to host an EJ Scholar to help us develop programmatic activities related to environmental justice research. NINR is particularly interested in hosting a scholar with demonstrated expertise and a record of scholarship in environmental justice areas that may include behavioral and social sciences research, community engagement and partnerships, health equity and social determinants of health research, and work addressing the health of communities at the intersections of social identities related to factors such as race, ethnicity, socioeconomic status, gender, and ability. The exact focus of the scholar's activities will be flexible and dependent on their area of expertise, scientific background, and interests. Applications from scholars with a nursing background are encouraged. Potential activities may involve, but are not limited to:

- Conducting literature reviews and portfolio analyses to identify gaps in environmental justice research.
- Expanding awareness and knowledge of environmental justice and health equity research through internal and external seminars.
- Planning and organizing a workshop.
- Writing manuscripts, reports, and white papers.

Office of Behavioral and Social Sciences Research (OBSSR)

The NIH Office of Behavioral and Social Sciences Research (OBSSR) is part of the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI) within the NIH Office of the Director. DPCPSI directs activities to identify NIH-wide scientific opportunities, public health challenges, and knowledge gaps that merit further research. DPCPSI also develops resources for portfolio analyses and priority setting, supports program evaluations, and coordinates research activities across NIH.

The mission of OBSSR is to enhance the impact of health-related behavioral and social sciences research (BSSR) by identifying gaps and opportunities for BSSR, integrating BSSR within the larger NIH research enterprise, developing and coordinating BSSR initiatives with NIH ICOs, and communicating significant BSSR findings within NIH and beyond.

OBSSR seeks to host an EJ Scholar with interest in leveraging behavioral and social science approaches to investigate and protect individuals and communities from disproportionate and adverse health consequences of environmental exposures (including those related to climate change) as well as to promote equitable access to healthy, sustainable, and resilient environments. The EJ Scholar may have a background in public health, environmental studies, psychology, social work, social policy, demography, anthropology, or other related field(s). Scholars with expertise in health equity, social determinants of health, intergenerational effects, policy evaluation, multilevel



and longitudinal experimental designs and methods, community-based participatory research, or dissemination and implementation science are encouraged to apply.

The EJ Scholar shall serve as a subject matter expert and have opportunities to collaborate on activities such as identifying research gaps and needs, analyzing data for publication, organizing expert gatherings, fostering collaborations with other NIH ICOs, and initiating new federal or public-private partnerships. The EJ Scholar will join a highly collaborative and dedicated OBSSR staff of 25 and contribute meaningfully to our efforts to accelerate the most impactful behavioral and social sciences research related to environmental justice and human health.

Office of Dietary Supplements (ODS)

The mission of the NIH Office of Dietary Supplements (ODS) is to strengthen knowledge and understanding of dietary supplements by evaluating scientific information, stimulating and supporting research, disseminating research results, and educating the public to foster an enhanced quality of life and health for the U.S. population. The dietary supplement market now includes more than 100,000 products and about one-half of adults and one-third of children and adolescents in the U.S. use dietary supplements. Yet questions remain about their cellular mechanisms, metabolism, efficacy, safety, and effects on health. To address these questions, ODS leads the scientific exploration of dietary supplements across NIH. ODS also supports and coordinates activities to inform policy decisions in public health and nutrition. ODS accomplishes these and other goals by working collaboratively with NIH ICOs as well as with other federal agencies (e.g., USDA, FDA, NIST, CDC). More information about ODS and its array of programs can be found at http://ods.od.nih.gov.

ODS is seeking an EJ Scholar with training or experience that *complements* that of current office staff representing diverse expertise in areas including nutrition, epidemiology, biochemistry, and analytical chemistry. The scholar will be encouraged to provide a multidisciplinary lens into how dietary supplements might be leveraged to promote health and resilience across diverse populations throughout the lifespan. Some potential topic areas that may be especially relevant to ODS include understanding the role of dietary supplements in addressing diet/nutrition and food justice, exploring the role of dietary supplements and its impact on pregnancy outcomes and environmental exposures, or characterizing dietary supplements that influence biological pathways that offer protection to environmental exposures. Scholars may contribute to these, or other related topic areas, through a range of activities, such as the development of workshops, writing journal articles or white papers, preparing webinars, developing fact sheets, conducting portfolio analyses, exploring relevant research gaps and/or identifying new priority areas. A scholar who joins ODS can expect to have some flexibility in selecting to participate on projects that align with their own interests, expertise, and career goals.