

RESEARCH AND ENGAGEMENT FOR ACTION ON CLIMATE AND HEALTH CENTER

The REACH Center Announces its Inaugural 2025 Fellowship Cohort!

The Research and Engagement for Action on Climate and Health (REACH) Center is thrilled to announce the selection of the inaugural cohort of REACH Center Climate and Health Research Fellows! This exceptional group of fellows was carefully selected to bring a balanced mix of skills and experiences in public health and climate data, positioning them to effectively and collaboratively engage during their placement with DC Health.

The REACH Center leverages big data to research climate change mitigation and adaptation solutions that can improve health and equity. The REACH Center is a collaborative effort by George Washington University, George Mason University, Howard University, and the Environmental Defense Fund.

About the Fellowship Program

The REACH Center Climate and Health Research Fellowship is designed to support outstanding students who demonstrate academic excellence, have a strong interest in community-engaged work, and show a deep commitment to advancing health and environmental justice through equitable climate solutions. The program provides an enriching experience that includes mentorship, professional development, and financial support to help students achieve their goals.

The REACH Center Climate and Health Research Fellowship Program cultivates a collaborative cohort of three student fellows across REACH academic partner institutions, empowering them to engage effectively with community partners in identifying and implementing solutions to climate change and health challenges. Through this initiative, fellows and community partners will enhance their capacity for engagement and climate research, fostering connections that strengthen institutional collaboration and lay the groundwork for future research proposals.

The 2025 cohort of students, composed of one student from each academic partner institution (i.e., GW, GMU, HU), will work collectively to support the DC Health Office of Environmental Protection's Climate Adaptation and Heat Health Resiliency programs. Focus areas include the development and implementation of the Division of Outdoor Environment's Climate Adaptation program. The cohort will also collaborate with other Administrations within the agency, including the Community Health Administration and the Office of Health Equity. The selected fellows will focus on meeting program objectives and deliverables to ensure their effectiveness, efficiency, and impact on residents and visitors concerning Climate Change and Heat Health impacts. This role involves collaborating with program staff, stakeholders, and community partners to collect and analyze data, report findings, and recommend strategies and interventions to best support public health outcomes in the District of Columbia.

Selection Process and Criteria

In this inaugural offering of the research fellowship, we received 39 applications from well-qualified students at George Washington, George Mason, and Howard universities. A selection committee representing REACH Center partner institutions thoroughly evaluated applications. Review criteria included community engagement experience, research experience, academic record, commitment to focus area and experience with climate science, and cross disciplinary goals and problem solving/consensus building ability.

Meet the 2025 REACH Center Climate and Health Research Fellows:

Hoda Hallaji, PhD candidate in Environmental Engineering, George Mason University



Hoda Hallaji is a Ph.D. student in the Department of Civil, Environmental, and Infrastructure Engineering at George Mason University, where her research focuses on high-resolution air quality modeling to support equitable and science-based environmental policies. As part of an NIH-funded initiative through the REACH Center, she investigates the health and equity impacts of transportation-related emissions and road pricing strategies in the Washington, D.C. metropolitan area. Her work integrates cutting-edge modeling tools—including the Community Multiscale Air Quality (CMAQ) model, the Weather Research and Forecasting (WRF) model, and the SMOKE emissions processing system—to simulate pollution at the neighborhood level with 1 km² resolution. By linking emissions, meteorology, and health data, she helps quantify disparities in exposure to pollutants such as NO₂ and PM_{2.5}, particularly in low-income and racially marginalized communities.

Hoda earned her Master of Science in Chemical Engineering from the University of Tehran. Her current research applies advanced atmospheric models and geospatial data analysis to explore how transportation policies can reduce air pollution, mitigate climate change, and improve public health outcomes. Through her work, she aims to inform policies that are not only effective but also just—ensuring cleaner air and healthier environments for all communities, especially those historically overburdened by environmental risk.

Jie Min, Doctor of Public Health (DrPH) candidate, George Washington University



Jie Min holds a Master of Science in Environmental Science and Policy from George Mason University and a Bachelor of Science in Public Affairs from Indiana University Bloomington. His interdisciplinary career journey bridges environmental science, public health policy, and infectious disease clinical research. Currently, Jie supports the research and educational mission of the Infectious Disease Clinical Research Program at the Uniformed Services University, where he facilitates programmatic and scientific advancements that aim to improve the health and readiness of U.S. service members and beneficiaries. Jie is also a Doctor of Public Health student at the GWU. His dissertation, titled "Spatiotemporal Distribution of Mosquito-Borne Pathogens in Response to Climate Change and Human Displacement in South America," explores the complex interplay between climate change, forced migration, and infectious disease dynamics, with a focus on flaviviruses and bunyaviruses in South America. The research applies spatiotemporal modeling, epidemiological data, and environmental surveillance to inform adaptive public health strategies.

Driven by a strong commitment to evidence-based decision-making and with aspirations to become a leader in managing scientists and guiding future research portfolios, Jie is poised to become a catalyst for innovation in public health, leveraging his technical expertise and leadership to drive strategic planning and advance population health outcomes.

Alycia Triplett, PhD candidate in Atmospheric Sciences, Howard University



Alycia Triplett is a Ph.D. student in the Atmospheric Sciences program at Howard University, where she explores the intersections of severe weather communication, risk perception, and decision-making, particularly for socially vulnerable communities. She has had a diverse range of research experiences ranging from storm surge modeling and severe thunderstorm analysis to qualitative data collection and enhancing decision support for a variety of end-users. Alycia is also deeply committed to service and representation, currently holding leadership roles in the Howard University Graduate Student Assembly and having previously served in student government at Jackson State University, where she earned her B.S. in Meteorology summa cum laude.

Through the REACH Center Fellowship, Alycia aims to apply her interdisciplinary background to the escalating threat of climate change on human health and to make atmospheric science more accessible and equitable. Ultimately, Alycia strives to bridge the gap between weather, climate, and community resilience, ensuring that critical weather and climate information is effectively communicated to the public.

Acknowledgments

We extend our deepest gratitude to the selection committee for their time and dedication in reviewing applications. We also thank the National Institute of Environmental Health Sciences and DC Health who make this program possible. Lastly, we recognize all applicants for their competitive submissions and commitment to advancing health and environmental justice through equitable climate solutions.

Stay Connected

Visit the REACH Center <u>website</u> and connect with us on <u>LinkedIn</u> for updates on the progress of our student fellowship cohort and for future opportunities. If you are interested in applying for the next offering of the student fellowship program, stay tuned for upcoming announcements!