



Testimony of the
American Geophysical Union
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To the
U.S. House Committee on Appropriations
Subcommittee on Labor, Health and Human Services, Education and Related Agencies
23 March 2020

Regarding the
FY2021 Budget Request for the National Institute of Environmental Health Sciences

The American Geophysical Union (AGU), a non-profit, non-partisan scientific society, appreciates the opportunity to submit testimony regarding the fiscal year (FY) 2021 appropriation for the National Institute of Environmental Health Sciences (NIEHS). **AGU, on behalf of its community of 110,000 Earth and space scientists, respectfully requests that the 116th Congress appropriate \$860.3 million for the NIEHS.** AGU's appropriations request takes into consideration previous budget cuts and accounts for both inflation and a necessary real four-percent year-over-year growth, to ensure that the U.S. remains at the forefront of research and innovation.¹

Under the umbrella of the National Institutes of Health (NIH), the NIEHS conducts essential, innovative research that advances our understanding of the effects of environmental changes or exposures on human health and disease in the U.S. and across the globe. Through NIEHS research, policymakers have access to vital, unbiased science that is necessary for making informed decisions when addressing public health issues. A few examples of the NIEHS's invaluable work are provided below.

Improving Disaster Response, Reducing Health Impacts, & Preventing Future Harm

The NIH Disaster Research Response program, launched by the NIEHS and the National Library of Medicine, helps to address the ongoing need for time-sensitive research in the aftermath of disasters, such as hurricanes, wildfires, oil spills, and public health crises. Such research helps scientists, government agencies, and communities better understand immediate environmental exposures and injury risks, potential short-term and long-term health impacts, the effectiveness of health response efforts and environmental cleanup efforts, as well as factors affecting post-disaster recovery and resiliency to future events. To

¹ This amount of growth is recommended by the *Innovation: An American Imperative* statement, which was authored by nine large U.S. corporations and endorsed by over 500 leading industry, higher education, science, and engineering organizations from across the 50 states. <https://innovation-imperative.herokuapp.com/index.html>.

support timely gathering of the environmental and toxicology data needed, the program has readily available research protocols, data collections tools, and training resources.²

Increasing Knowledge of Health Effects Related to PFAS Exposure

The NIEHS continues to be at the forefront of research on perfluoroalkyl and polyfluoroalkyl substances (PFAS). A year ago, at least 610 locations in 43 states were known to be affected by PFAS contamination, which included drinking water systems serving an estimated 19 million people.³ Research into the possible health impacts of PFAS chemicals exposure has already unmasked many links to adverse health outcomes. For example, research has revealed that PFAS exposure may increase a woman's risk of pregnancy complications.⁴ However, there is still much to understand regarding the effects of PFAS exposure, which is why the NIEHS continues to conduct research and award grants to external organizations across the nation.

Growing the Environmental Health Science Workforce

To further expand the world's understanding of environmental impacts on human health and disease and support interdisciplinary scientific research, the NIEHS provides training and educational opportunities for students of all ages—from the high school and undergraduate levels to graduate students and faculty. For example, the NIEHS Medical Student Research Fellowship program provides medical students an opportunity to train in environmental health-related research for a year at the NIEHS.⁵ The NIEHS also awards NIH Summer Research Experience Program (R25) grants that give high school and college students and science teachers an opportunity to gain valuable research experience at a higher education institution during the summer.⁶

Conclusion

AGU recognizes that difficult decisions must be made within the constraints of the current budget environment and believes that the future of the U.S. is best served by a strong and sustained investment in the full scope of our research enterprise—including new, innovative research regarding the impact of environmental factors on human health generated by the NIEHS. Thank you for your thoughtful consideration of this request and for the opportunity to submit this testimony.

² See, NIH Disaster Research Response Program (DR2), <https://dr2.nlm.nih.gov/>.

³ Based on data analysis by the Environmental Working Group and Northeastern University. Walker, B., (6 May 2019). Mapping the PFAS contamination crisis: New data show 610 sites in 43 states, *EWG News and Analysis*, <https://www.ewg.org/news-and-analysis/2019/04/mapping-pfas-contamination-crisis-new-data-show-610-sites-43-states>.

⁴ Broadfoot, M., (February 2020). Replacement chemicals may put pregnancies at risk. *Environmental Factor*, NIEHS Newsletter, <https://factor.niehs.nih.gov/2020/2/science-highlights/replacement/index.htm>.

⁵ See, NIEHS Medical Student Research Fellowships, <https://www.niehs.nih.gov/careers/research/med-students/index.cfm>.

⁶ See, the NIH Summer Research Experience Programs (R25), https://www.niehs.nih.gov/research/supported/irt/summer_research/index.cfm.