

Testimony submitted by the Endocrine Society

March 25, 2022

The Endocrine Society thanks the Subcommittee for the opportunity to submit the following testimony regarding Fiscal Year (FY) 2023 federal appropriations for biomedical research and public health programs. The Endocrine Society is the world's oldest and largest professional organization of endocrinologists representing approximately 18,000 members worldwide. The Society's membership includes basic and clinical scientists who receive support from the National Institutes of Health (NIH) for research on endocrine diseases that affect millions of Americans, such as diabetes, thyroid disorders, cancer, infertility, aging, obesity and bone disease. Our membership also includes clinicians who depend on new scientific advances to better treat and cure these diseases. We are dedicated to promoting excellence in research, education, and clinical practice in the field of endocrinology. To support necessary advances in biomedical research to improve health, the Endocrine Society recommends the NIH receive funding of at least \$50 billion for fiscal year (FY) 2023; to facilitate the translation of these advances to improve public health, the Endocrine Society recommends the CDC receive funding of at least \$11 billion; and to ensure that women have access to appropriate health services, we recommend that the Title X program be funded at \$737 million. This request does not include additional emergency supplemental funds or new programs situated in NIH including the Advanced Research Projects Agency for Health (ARPA-H).

Endocrine Research Improves Public Health

The United States' NIH-supported scientists are making fundamental biological discoveries and developing applied therapies that advance our understanding of, and ability to treat diseases. Their research has led to new medical treatments, saved innumerable lives, reduced human suffering, and launched entire new industries. Endocrine Society members study how hormones contribute to the overall function of the body and how the glands and organs of the endocrine system work together to keep us healthy. Physiological functions governed by the endocrine system are essential to overall wellbeing: they include reproduction, the body's response to stress and injury, sexual development, energy balance and metabolism, and bone and muscle strength.

Effective Progress Requires Consistent Support Across NIH

Our members are funded by many different Institutes and Centers (ICs) at NIH and appreciate the need to apply funding increases proportionally to all ICs and offices at NIH to effectively advance biomedical research. We are concerned that when funding is applied disproportionately and at the expense of certain ICs, payline disparities increase and gaps in our understanding of important



biological pathways emerge. Regular, sustainable, and proportional increases to all NIH ICs empower endocrinologists to develop novel interdisciplinary approaches that address public health priorities. For example: The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is taking a leadership role in understanding the pathophysiology and clinical course of COVID-19 induced diabetes, and partnering with other ICs to develop community-engaged testing interventions among underserved and vulnerable populations¹. Endocrinologists funded by National Institute of Environmental Health Sciences (NIEHS) and National Institute for Child Health and Human Development (NICHD) are aiming to improve our understanding of how climate change will impact fertility². Endocrine oncologists supported by the National Cancer Institute (NCI) and NIEHS are contributing to our knowledge of how drugs and consumer products can contribute to cancer risk^{3,4}. And endocrine researchers funded by the National Institute of Mental Health (NIMH) and Office of Research on Women's Health are helping us better address gaps in understanding of how sex differences contribute to mental illness.

Report Language Opportunities for FY 2023

Research on Transgenerational Health Effects: Diethylstilbestrol (DES) is an endocrine-disrupting chemical that was prescribed to women between 1940-1971 to prevent miscarriage, premature labor, and other pregnancy complications. Unfortunately, not only was DES ineffective in preventing these complications, but it also was linked to a rare cancer in women and can cause a variety of cancers and other health effects in the daughters and sons of exposed women. Research now suggests that the effects of exposures cause health effects in the grandchildren of exposed women and future generations. Recognizing the need for knowledge about the health effects of DES exposure, the NIH established the DES follow-up study, creating a coordinated longitudinal cohort that has made important discoveries about the health effects of DES exposure. We are now at a critical point in time to learn more about the persistence of health effects beyond the children of exposed women so that future generations have valuable information about their own health risks.

We urge the Subcommittee to therefore include report language asking NIH to report on plans for existing or new cohort studies that can address transgenerational effects of EDC exposures, including the continuance of the DES longitudinal cohort.

¹ <https://www.nidk.nih.gov/research-funding/current-opportunities/rfa-od-22-005>

² Audrey J. Gaskins et al., 2021

³ <https://www.endocrine.org/news-and-advocacy/news-room/featured-science-from-endo-2021/drug-used-during-pregnancy-may-increase-cancer-risk-in-mothers-adult-children>

⁴ <https://endocrinenews.endocrine.org/edc-exposure-during-pregnancy-may-reduce-breast-cancer-protection/>



Supporting the Physician-Scientist Workforce: Recognizing the challenges facing the physician-scientist biomedical research workforce, the NIH convened and charged a Physician-Scientist Workforce Working Group with analyzing the current composition and size of the physician-scientist biomedical workforce and making recommendations for NIH to take to help sustain and strengthen a robust and diverse physician-scientist workforce. In 2014, the NIH released a report which made nine recommendations to sustain and strengthen a robust and diverse physician-scientist workforce. We know that several ICs have created initiatives; however, there is a need for the NIH to comprehensively report on outcomes, best practices, and remaining gaps.

We urge the Subcommittee to include report language asking NIH to provide an update on actions to bolster the physician-scientist workforce either by implementing the 2014 report's recommendations or otherwise, including outcomes data on the Medical Scientist Training Program (MSTP), and the Stimulating Access to Research in Residency (StARR) program.

Special Programs Must Not Erode Support for Investigator-Initiated Research

The Endocrine Society is enthusiastic about the potential for ARPA-H to advance transformative public health interventions and develop new research platforms that deliver improved care to patients quickly and efficiently. However, investments for ARPA-H must not come at the expense of the investigator-initiated research that has been chiefly responsible for the numerous NIH-supported public health achievements. We therefore urge the Committee to provide at least \$50 billion to the NIH base budget, with increases applied equally across all ICs and offices. Any additional funds for pandemic preparedness or ARPA-H should complement, rather than supplant, these investments in the future of biomedical research.

Adequate Funding of CDC Programs Is Necessary to Protect the Public's Health

The CDC plays a critical role in protecting the public's health by applying new knowledge to the promotion of health and prevention of chronic diseases, including diabetes. The Division of Diabetes Translation administers the National Diabetes Prevention Program (National DPP), which addresses the increasing burden of prediabetes and Type 2 Diabetes in the United States, creates public and private partnerships to provide evidence-based, cost-effective interventions that prevent diabetes in community-based settings. Through structured lifestyle change programs at local YMCAs or other community centers, individuals with prediabetes can reduce the risk of developing diabetes by 58% in those under 60 and by 71% in those 60 and older⁵. In addition to supporting public health and prevention activities, CDC's Clinical Standardization Programs in the Center for Environmental Health are critical to improving accurate and reliable testing of hormones, appropriate diagnosis and treatment of disease, and reproduceable public health

⁵ The Diabetes Prevention Program (DPP) Research Group *Diabetes Care*. 2002 Dec;25(12):2165-71.



research. Adequate funding is critically important to ensure that CDC has the capacity to protect the public's health.

Title X Funding Provides Necessary Services and Reduces Healthcare Costs

Title X is an important source of funding for ensuring reproductive health benefits including both contraceptive and preventive services to women. Offering affordable access to contraception can have a measurable impact on healthcare costs. For every public dollar invested in contraception, short-term Medicaid expenditures are reduced by \$7.09 for the pregnancy, delivery, and early childhood care related to births from unintended pregnancies, resulting in savings of \$7 billion to federal and state governments⁶. Title X is the main point of care for low income, under- or uninsured, adults and adolescents for affordable contraception, cancer screenings, sexually transmitted disease testing and treatment, and medically-accurate information on family planning options. However, to provide these services to the over 4 million people who depend on Title X-funded centers, Title X is significantly underfunded.

⁶ Frost JJ, et al., Publicly Funded Contraceptive Services at U.S. Clinics, 2015, New York: Guttmacher Institute, 2017.