

April 28, 2025

The Endocrine Society thanks Chair Collins and Vice Chair Murray for having this hearing on "Biomedical Research: Keeping America's Edge in Innovation" and for the opportunity to submit a statement for the record. The Endocrine Society is the world's oldest and largest professional organization of scientists devoted to endocrine research and physicians who care for people with endocrine conditions. Our 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 alarmed by recent funding cuts, federal employee firings, and proposed restructuring of the NIH by the administration because these actions undermine our ability to remain a global leader in developing the next generation of treatments and cures.

<u>America's Leadership in Biomedical Innovation Improves Health and the Economy</u> Funding for the NIH has been a longstanding bipartisan priority due to the health and economic benefits provided by steady, sustainable support for biomedical research. Decades of investment in foundational basic science and clinical research with human participants has resulted in lifesaving medical breakthroughs and helped fuel our economy. A selection of recent endocrine-related examples of NIH research leading to public health improvements that also support new industries includes:

- **Precision Cancer Therapy:** Funding from the National Cancer Institute (NCI) led to the development of Gleevec, one of the first successful molecular medicines to treat chronic myelogenous leukemia (CML)¹.
- Fertility Preservation: Research supported by the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) in collaboration with several ICs helped establish the field of oncofertility the ability to preserve or restore fertility for cancer patients². Endocrine research funded by the National Institute of Environmental Health Sciences (NIEHS) also helps us understand how environmental insults can impact fertility status, and what can be done to prevent fertility challenges.
- **GLP-1 Therapies:** Over 75 years of NIH-supported research on diabetes by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) has driven the development of entire classes of drugs with varied mechanisms to not

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¹ https://www.cancer.gov/research/progress/discovery/gleevec

² <u>https://oncofertility.msu.edu/news/new-oncofertility-publications-2025/</u> Accessed April 28, 2025.



only treat diabetes but also address common comorbidities such as obesity³. These drugs have also shown promise in treating other diseases, including substance abuse and cardiovascular disorders⁴.

- Artificial Pancreas Technologies: Consistent support from NIDDK has led to the development of artificial pancreas systems that help patients with Type-1 diabetes monitor and manage their blood glucose and improve their quality of life⁵.
- Women's Health: Funding from the National Institute on Aging (NIA) helped a small business achieve FDA funding for a new treatment to prevent postmenopausal fractures in women⁶.
- **Prevention of Intellectual Disabilities:** Research supported by NICH developed a screening method for congenital hypothyroidism allowing treatment to prevent intellectual disabilities resulting from this condition.

In addition to research that leads to interventions such as drugs, devices, and therapies, NIH also funds research aimed at preventing diseases and understanding the impacts of disease across the lifespan. For instance, researchers funded by the National Institute of Environmental Health Sciences study how environmental factors, including diet and chemicals, may influence the development and progression of diabetes, while researchers funded by NICHD are leading research on the short- and long-term adverse health consequences for women and children due to gestational diabetes. Research funded by each of these Institutes and Centers contributes to our understanding of, and ability to treat diabetes in unique and important ways. Congress has consistently recognized the value of this multi-faceted approach through the annual appropriations process and through legislation such as the 21st Century Cures Act⁷, and successive administrations have supported ambitious research goals from Operation Warp Speed to the Cancer Moonshot.

Cuts Threaten America's Innovation Edge

We are extremely alarmed about recent and proposed cuts to the NIH and the long-term impact this will have on our Nation's health and economic competitiveness. Discontinuing our investment in NIH would result in the loss of promising lines of research into new therapies as well as the loss of biomedical research jobs throughout the country, including

³ Muller, TD., et al., Mol Metab. 2019 Sep 30;30:72–130. doi: 10.1016/j.molmet.2019.09.010 ⁴ Unlocking the broad health benefits and risks of GLP-1 receptor agonist drugs. *Nat Med* **31**, 745– 746 (2025). <u>https://doi.org/10.1038/s41591-024-03476-8</u>

⁵ https://www.niddk.nih.gov/health-information/diabetes/overview/managing-diabetes/artificial-pancreas

⁶ https://seed.nih.gov/portfolio/stories/BoneHealthTechnologies

⁷ 21st Century Cures Act, HR34. 114th Congress (2015-2016)



staff who support research such as nurses for clinical trials, and expert staff who enable the use of high-tech equipment. We also stand to lose our ability to identify and mitigate biosecurity risks, including infectious disease and food safety issues.

We are already seeing the impacts of disruptions to research; many of our members have still not received grant funding despite receiving extremely competitive scores following peer review or notices of awards indicating that their grant has been approved for funding. We understand that the indiscriminate firings of staff at NIH have created further challenges and inefficiencies for researchers both on the NIH campus as well as at institutions across the country. We are also troubled by reports that entire programs supporting research training are being curtailed or eliminated, disrupting the pipeline of graduate students and other aspiring researchers. If funding challenges persist, or cuts to research are pursued, then we stand to lose generations of research expertise and experience to other countries who are ready and willing to invest and become leaders in biomedical research. This will imperil not only scientific discovery, but also our nation's ability to support biomedical entrepreneurship.

Finally, we are extremely concerned about the withdrawal of grant funding based solely on university affiliation and having nothing to do with scientific merit. For example, in March, the Administration sent notice of the immediate termination of all Diabetes Prevention Program (DPP) activities at NIH including the DPP Outcomes Study. The DPP, which started in 1996, found that lifestyle changes or taking the medication Metformin could prevent or delay the onset of type 2 diabetes in people at risk of developing the condition. The DPP has received strong bipartisan support and has successfully demonstrated that a 5-7 percent weight loss lowers the risk of developing diabetes by 58 percent. The DPP Outcomes Study is the long-term follow-up study of the DPP cohort, and is currently studying Alzheimer's disease and dementia, in addition to continuing to study the long-term effects of diabetes prevention on other health conditions, such as cancer, heart disease and stroke, nerve damage, kidney disease and eye disease. It has continued to follow many of the more than 3,100 surviving DPP participants since 2002. This research, which is being conducted at 30 institutions in 21 states, impacts the over 100 million Americans living with diabetes or prediabetes, including over half of Americans over the age of 65. The elimination of this program contradicts the Administration's commitment to eliminating chronic disease and making Americans healthy.

These actions are fundamentally counterproductive and undercut the Administration's own stated goals of preventing chronic disease and improving health.



We Call on Congress to Protect NIH Funding

The future of the nation's health and economy depends on robust biomedical research and health funding. The actions taken by the administration have placed important, promising research on hold indefinitely and wasted taxpayer dollars while driving brilliant scientists to seek funding elsewhere, including other countries. Indiscriminate cuts to research will result in fewer research grants, Americans will lose access to clinical trials, and the U.S. will lose its status as a leader in medical research. We urge this committee to protect funding for biomedical research and ensure that any restructuring of the NIH not impede progress and essential programs that the public's health remain adequately funded.

To support necessary advances in biomedical research to improve health, the Endocrine Society recommends the following FY 2026 appropriations for NIH:

• NIH- \$51.303 billion exclusive of additional funds to the Advanced Research Projects Agency for Health (ARPA-H)