Senate Committee on Appropriations
Biomedical Research: Keeping America's Edge in Innovation
April 30, 2025

Chairwoman Collins and Ranking Member Murray, thank you for holding this hearing today on the importance of maintaining our nation's dominance in biomedical research and the life sciences. Investments in biomedical research have not only improved the health of millions of Americans but have served as an economic engine by spawning industries that would not exist without such federal funding.

The American Gastroenterological Association (AGA) is the leading professional society for gastroenterologists and hepatologists, representing members involved in diagnosing, treating, and researching digestive and liver diseases. Our vision is a world free of digestive diseases, and federal funding of biomedical research is critical to help us reach this goal.

The National Institutes of Health (NIH) is pivotal in advancing human health through scientific research. Digestive diseases encompass a wide range of conditions affecting the gastrointestinal tract, including disorders such as irritable bowel syndrome (IBS), Crohn's disease, ulcerative colitis, and gastrointestinal cancers such as colorectal cancer. NIH funding for digestive disease research has provided insights into these conditions' etiology, pathophysiology, and treatment.

Cutting NIH by 40%, as proposed by the Trump Administration, would devastate current research, threaten the future of our nation's best and brightest scientists from pursuing research careers, and cede our nation's economic competitiveness in the life sciences and the industry it creates. The AGA supports the Ad Hoc Group on Medical Research's recommendation to fund the NIH at $51.3 billion in fiscal year 2026 which is the amount necessary to maintain progress and keep pace with medical inflation.

Breakthrough Research in Digestive Diseases

Approximately 3.1 million Americans have inflammatory bowel disease (IBD). This condition is often diagnosed in young adults and has high variability that can impact a patient's productivity and quality of life. The NIH has funded grants in both basic and translational science that have led to uncovering critical pathways that drive these diseases and translating those discoveries into meaningful improvements in patient care. For example, an NIH-funded grant in IBD that brought together scientists with expertise in

different fields that was funded for **nearly 30 years.** This study greatly expanded the breadth, depth, and pace of discoveries in IBD.

- A key outcome was the ability to define and stratify IBD into distinct subsets, allowing a more targeted approach to developing diagnostics and treatments.
- This ultimately laid the groundwork for precision medicine in these complex diseases and resulted in the creation of three companies that developed novel drugs and diagnostics.
- This work led to the first drug-diagnostic combination for precision medicine in IBD — helping identify the patients most likely to benefit from treatment. Not only did this therapy reduce gut inflammation, but, for the first time, it also could prevent and reverse damage to the intestine.

None of this would have been possible without NIH funding.

Another significant milestone in NIH-funded research is the Human Microbiome Project. Launched in 2008, the project aimed to understand the role of the human microbiome in health and disease.

NIH funding enabled researchers to map the complex interactions between the gut microbiota and human health, leading to groundbreaking discoveries about how microbial communities influence digestive health.

Companies specializing in microbiome therapies have flourished as a result of NIH-funded research on the human microbiome. These companies focus on developing probiotics, prebiotics, and other microbial-based treatments aimed at improving digestive health. Similarly, firms dedicated to genetic research have utilized findings from NIH-supported studies to create personalized medicine approaches for digestive diseases.

Clinical Trials and Treatments

Clinical trials funded by NIH have played a critical role in assessing the efficacy and safety of new treatments for digestive diseases. These trials have led to the approval of various medications and interventions that have improved the quality of life for patients. Examples include biologic therapies for inflammatory bowel disease (IBD) and innovative surgical techniques for gastrointestinal cancers.

Economic Growth

NIH funding not only advances scientific knowledge but facilitates the translation of research findings into practical applications that improve the lives of patients.

Startup Ecosystem

Numerous startups have emerged from academic and research institutions supported by NIH grants. These companies leverage the discoveries made through NIH-funded research to develop innovative products and therapies.

The creation of companies based on NIH-funded research has had a profound impact on the economy. These companies generate employment opportunities, attract investments, and contribute to the overall growth of the biotechnology sector.

Additionally, the commercialization of NIH-funded discoveries leads to the development of new products that can benefit patients worldwide, further enhancing the economic impact.

Conclusion

Federal funding of the National Institutes of Health has been instrumental in advancing human health in digestive diseases.

NIH funding is not just about advancing science but transforming lives. Cutting NIH research doesn’t just slow research – it stalls groundbreaking discoveries that have the potential to change the future of medicine and improve the lives of millions of Americans.

It is critical that Congress protect NIH and provide for meaningful investments that will continue to drive innovation, create economic opportunities for Americans, and improve patient lives.