AAU SUPPORTS $32 BILLION FOR NIH IN FY13

AAU urges Congress to provide $32 billion for the National Institutes of Health in FY13. This funding level will allow the agency and the biomedical research enterprise to keep pace with inflation and sustain our extraordinary progress in the improvement of human health. Biomedical research funded by NIH and performed at AAU member universities helps assure U.S. leadership in the life sciences revolution of the 21st century. The recommended investment in FY13 will enable research universities to pursue scientific opportunity, advance public health, and create jobs and economic growth.

SCIENTIFIC OPPORTUNITY

Recent advances in biotechnology and genomics are advancing development of novel therapies for a host of diseases, including Alzheimer’s, autism, cancer, and diabetes. Improved understanding of the fundamental, molecular causes of disease is being used to screen thousands of chemicals for potential drug candidates and to generate less toxic cancer therapies tailored to the specific genetic profile of each patient’s cancer.

NIH is also poised to rapidly respond to public health emergencies and in support of biodefense, as evidenced by the rapid development of a vaccine in response to the H1N1 epidemic. Researchers are now working on a universal influenza vaccine, which would provide long-lasting protection against any strain of influenza, removing the uncertainty and burden of making and administering seasonal flu vaccinations. Moreover, a landmark study funded by NIH recently demonstrated that early retroviral treatment dramatically reduces the transmissibility of HIV, bringing the possibility of globally eliminating this deadly disease in feasible reach. This discovery was named the 2011 Breakthrough of the Year by Science.

NIH RESEARCH ADVANCES HEALTH AND MEDICINE

- Almost 12 million people in the United States are cancer survivors, nearly four times as many as 40 years ago. New therapies, prevention strategies, and diagnostics have contributed to a continued decline in the number of cancer deaths per year, collectively resulting in more than 800,000 lives saved over 15 years.

- Between 1970 and 2005, the life expectancy of the average American increased by 6.6 years. More than 70 percent of the increase—4.7 years—was due to reductions in deaths from cardiovascular disease. We can attribute this remarkable improvement, in large part, to NIH-funded research.

- In the past, there was little that could be done to prevent blindness caused by age-related macular degeneration (AMD). Now, thanks to new treatments and procedures based on NIH-funded research, 750,000 Americans who otherwise would have lost their vision over the next five years will continue to see.

A VISION FOR ACCELERATING DISCOVERY

NIH is at the forefront of ensuring that cutting-edge scientific advances result in new therapies, innovative technologies, and new medical practice. In FY13, NIH leadership has identified four areas as part of a new paradigm for transforming our best science into improved health:
O **Investing in Basic Research** – The federal government, through NIH, plays a unique and critical role in supporting the fundamental research discoveries which have broad implications for the next generation of innovative medical technologies and therapies against disease. Improving our understanding of disease onset and progression leads to better prevention, improved diagnostics, and the discovery of new treatments.

O **Technologies to Accelerate Discovery:** The new century of life science is driven by technologies, including DNA sequencers, microarrays, nanotechnology, and advanced imaging devices that allow scientists to elucidate the causes of disease at the most fundamental levels. The further development of these devices, as well as progress in the Cancer Genome Atlas—which is charting complex pathways involved in many different types of cancer—and in induced pluripotent stem cell technologies, provides powerful tools for research and therapies.

O **Advancing Translational Sciences:** The newly established National Center for Advancing Translational Sciences (NCATS) seeks to re-engineer the pipeline for therapeutics and diagnostics discovery and development. The goal of NCATS is to facilitate medical innovation, enable partnerships between the government and private industry, and develop partnerships with other federal agencies, such as the Food and Drug Administration, to accelerate regulatory review of promising new products.

O **New Investigators, New Ideas:** The next generation of paradigm-shifting biomedical breakthroughs will come from the next generation of biomedical scientists. NIH plans to fund a series of awards both to support young scientists at critical stages in their careers and to invest in high-risk, high-impact projects from new investigators. The agency is also systematically examining training and workforce issues; the goal is to develop models to help guide decisions that maximize the potential of the 21st century biomedical workforce.

**JOB CREATION, ECONOMIC GROWTH, AND NATIONAL LEADERSHIP**

The nation’s biomedical research enterprise is not only the world’s biggest and best, it is an economic powerhouse. NIH funding helps support 350,000 scientists at research institutions in all 50 states. According to NIH, each of its research grants creates or sustains six to eight jobs. Biomedical research jobs are also high-skilled and high-wage; the estimated average annual salary for an NIH-funded research job is more than $50,000. A recent report by United for Medical Research showed that in 2010 alone, NIH funding generated nearly half-a-million jobs and $68 billion in economic output.

The U.S. invests more in lifesaving medical science than the European Union or any other single nation. But other nations, following America’s example, are beginning to build their own medical science enterprises. The Chinese government recently announced that it had purchased 128 of the latest genome sequencing machines. This gives China greater capacity for gene sequencing than the United States. Our nation must continue to bolster our investment in NIH if we are to maintain our national leadership in the new Life Sciences Century.


NIH funding will continue to create jobs; improve the lives—and quality of life—of millions of current and future patients and help assure continuing U.S. economic and national security. AAU will work with Congress to secure $32 billion for NIH in FY13.

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