

Cancer Research Delivers Breakthroughs and Hope

Protect NIH and NCI Funding



The National Institutes of Health (NIH) and its National Cancer Institute (NCI), one of 27 institutes and centers within the NIH, are a central foundation for cancer research activities across the United States and abroad. For decades, NCI-funded research has played a role in every major cancer prevention, detection and treatment advance, while also delivering scientific breakthroughs for many other diseases.

Despite cancer's complexity, recent genomic discoveries and an increased understanding of how cells replicate is so promising that we are now on the cusp of a whole new realm of understanding that will help us deliver more personalized, less invasive cancer care. The remarkable returns on our continuing research investment are clear:

- Cancer death rates have been steadily declining for men and women overall, and for most racial and ethnic populations in the United States. From 1991 to 2010, the greatest drop in cancer death rates, 55 percent, was seen among African American men aged 40 years to 49 years. Notably, African American men experienced the largest drop within every 10-year age group.
- We now have nearly 14 million cancer survivors in the U.S. – living proof of the gains we've made. Today, two-thirds of patients survive five years or longer after their cancer diagnosis, compared to only half of patients forty years ago.

Despite these successes, progress in certain areas has not kept pace. Moreover, cancer incidence is projected to nearly double by 2020, particularly among the aging Baby Boomer population. These trends signal a clear call for action to address specific areas of need and opportunity, including:

- Developing early detection tools and better treatments for those cancers that remain most lethal.
- Addressing existing disparities in health outcomes by putting our cancer prevention, early detection, and treatment knowledge to use in all populations.
- Improving quality of care and reducing suffering by advancing pain and symptom management, and other research supporting quality of life for cancer patients, survivors, and their loved ones.

Funding Will Fuel Even More Research, Promise, and Progress

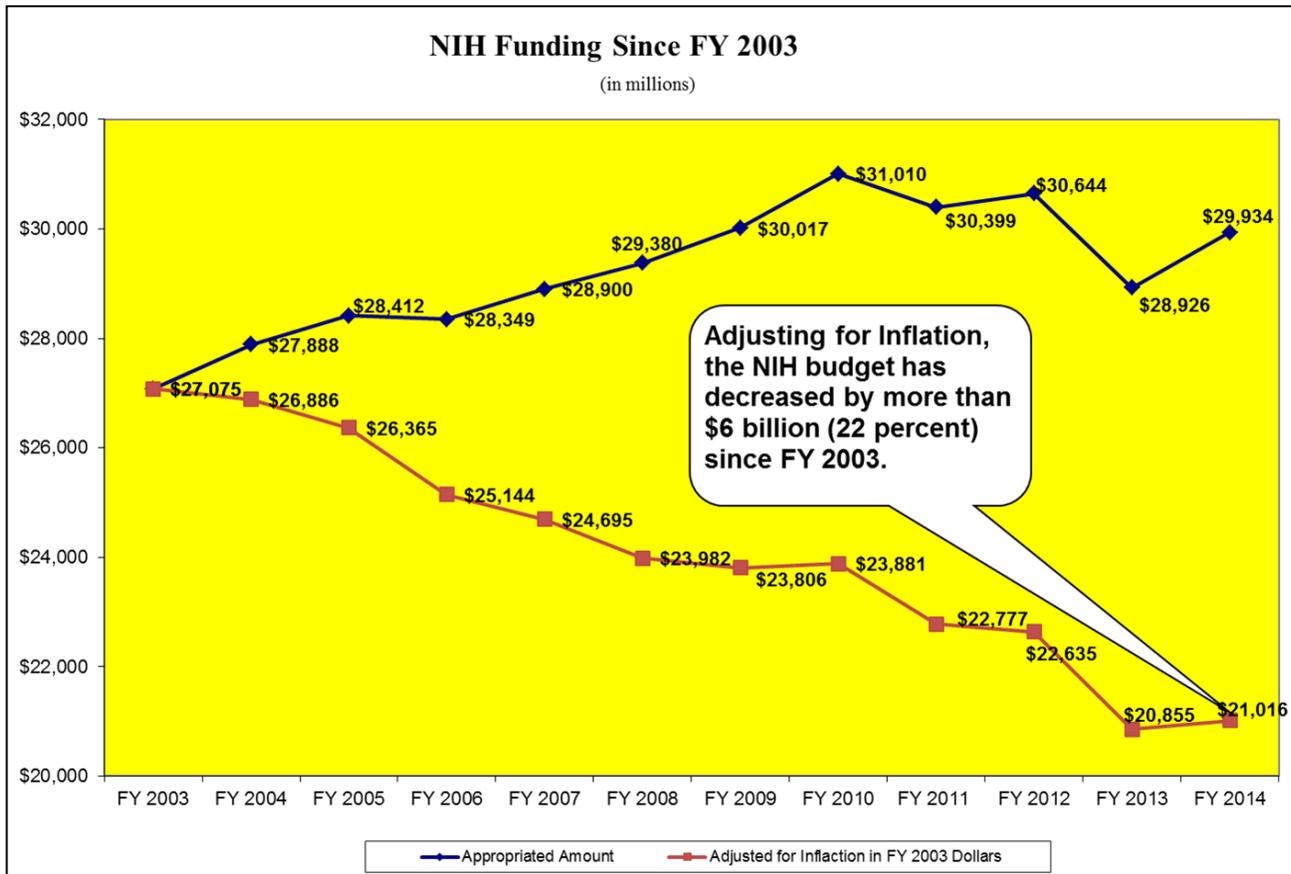
We must build on these critical NIH investments to realize the promise emerging from this funding. In the past year alone, this research support has delivered numerous important clinical advances including:

- **Potential drug targets identified in common childhood brain cancer:** NCI-funded researchers studying the genetic roots of the most common malignant childhood brain tumor have discovered 41 disease-associated genes, some already targeted for drug development.
- **Researchers discover new mechanism behind resistance to cancer treatment:** A research team has discovered a key factor that drives resistance to chemotherapy. This information may ultimately be used to improve the effectiveness of therapy and buy time for patients with advanced cancer, and would not have been possible without NCI funding.
- **Study finds protein that suppresses breast cancer metastasis:** A receptor protein suppresses local invasion and metastasis of breast cancer cells, the most lethal aspect of the disease, according to a study funded by the NCI. High-throughput RNA sequencing identified the leukemia inhibitory factor receptor (LIFR) as a novel suppressor of breast cancer metastasis.

Economic Benefits to Communities

NIH funding stimulates local economies. More than 80 percent of its budget funds almost 50,000 extramural grants to more than 300,000 researchers at over 2,500 universities, medical schools, and other research institutions in every state and around the world. The impact is clear. In fiscal year 2012, alone, for example:

- Each dollar of NIH's \$22.02 billion extramural research investment generated more than twice as much (\$57.8 billion) in new state business activity in the form of increased output of goods and services.
- NIH grants and contracts created and supported more than 402,000 jobs that generated substantial wages in the 50 states, and led to the creation of additional jobs in the private sector (e.g., pharmaceutical, biotechnology, medical device and medical lab testing jobs).¹



FY 2015 Funding for NIH and NCI

To ensure that the research being supported today yields the cancer treatments of tomorrow, Congress must sustain and expand the support it is currently providing. Once Voice Against Cancer urges Congress to protect funding for medical research and provide the NIH with a budget of \$32 billion, including \$5.26 billion for the National Cancer Institute (NCI), \$287 million for the National Institute on Minority Health and Health Disparities (NCMHD), \$150 million for the National Institute on Nursing Research (NINR), and \$677 for the National Center for Advancing Translational Sciences (NCATS).

¹ United for Medical Research (www.unitedformedicalresearch.com)