

Cancer Research: The Promise of Hope

Provide funding increases of at least:

- **9.5% (\$455 million) for NCI**
- **6.9% (\$13.8 million) for NCMHD**
- **6.5% (\$1.9 billion) for NIH**



The National Cancer Institute (NCI) – one of the 27 institutes and centers that comprise the National Institutes of Health (NIH) – is the foundation for the nation’s cancer research efforts. NCI-funded research has played a role in every major advance in the fight against cancer over the last 30+ years.

Nearly 80% of NCI’s annual funding supports external scientists and researchers at 650 universities, hospitals, Cancer Centers, and other sites across the US and in more than 20 countries, including many who conduct the clinical trials necessary to translate basic scientific findings into cancer treatments. In 2007, NCI invested more than \$2.1 billion in support of over 5,200 investigator-initiated Research Project Grants.

Today, researchers are making remarkable progress in every area of cancer research - prevention, detection, treatment and care – moving discoveries from the laboratories to the bedside. Each year, NCI supports over 1,300 clinical trials, assisting more than 200,000 patients. The results are clear:

- Half a million cancer deaths have been averted because of declining mortality rates that started falling in the early 1990s.
- More effective therapies have led to improved outcomes for nearly 11 million cancer survivors living in the US – the living proof of our progress in diagnosing certain cancers at an earlier stage and improvements in treatment.

Over the last 30 years, our nation’s investment in cancer has been about \$16 per American per year.

However, for too many people and many of the deadliest cancers, this progress has been incremental, at best. For example, lung and pancreatic cancer, the 1st and 4th leading causes of cancer related deaths, are two examples of cancers for which survival rates have not substantially improved over the past 25 years. For almost every cancer, there are significant areas of research that are critical to pursue.

Research Progress and the Promise of Personalized Medicine

Researchers are exploring ways to develop combinations of therapeutic solutions that target the multiple pathways of cancer, earlier interventions that eradicate cancer long before the development of a tumor or the onset of symptoms, and effective individualized prevention methods. In the past year alone, cancer has seen stunning breakthroughs in prevention and screening as well as targeted therapies for hard-to-treat cancers.

Major research advances in 2007 include:

- While mammograms are still considered the best screening tool for women who are at normal risk for breast cancer, new guidelines and findings from several studies this past year provided additional guidance about how magnetic resonance imaging (MRI) should be used for breast imaging.
- Two studies shed light on a potential link for human papillomavirus (HPV, the virus present in virtually all cervical cancers) in the development of head and neck cancers, suggesting a possible prevention role for the recently approved HPV vaccine.
- Researchers reported for the first time that radiation therapy to the head for patients with advanced small cell lung cancer cuts the risk that the cancer will spread to the brain by about two-thirds, helping extend patients’ lives.
- Two studies of anti-cancer therapies that target specific molecular defects of cancer cells showed potential to change the standard of care for some liver and kidney cancers, which have proven particularly hard to treat.

Funding Cuts Will Cause Long Term Damage Derailing Our Progress

- Below inflation budgets of the last two years have carried beyond impacting internal and external capabilities in basic research laboratories; budget constraints are also limiting the clinical research options available to patients.

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- Fewer clinical trials have been started and fewer patients have been enrolled in available trials. This slows our ability to improve the standard of care for cancer patients through new drugs, devices, or interventions.
- NCI's Clinical Trial Cooperative Groups, which promote and support clinical trials of new cancer treatments, explore methods of cancer prevention and early detection, and study quality of life issues and rehabilitation during and after treatment, saw their funding cut by nearly 11% between 2002 and 2006.

Draining Our Workforce

- Five consecutive years of stagnant NIH funding is taking a toll on the American medical research enterprise, and is deterring promising young researchers from pursuing careers in medical science.
- The average age of a first-time NIH grant recipient is now 43 -- up from 39 in 1990.
- In competition for limited resources, scientists at every point along the academic research pipeline are feeling the destructive effects. Below inflation funding means the loss of a laboratory technician or two, a graduate student not brought into the lab, a postdoctoral fellow not hired, or research that must be scaled back to the point that scientific progress is significantly slowed and some opportunities are lost.
- Absent adequate funding, we risk losing a generation of young investigators to other careers and other countries, and with them, a generation of promising research that could cure disease for millions for whom no cure currently exists. Other countries, from Singapore to Switzerland, are making investment in biomedical sciences high national priorities. The availability of state-of-the-art infrastructure and adequate research dollars is attractive to investigators at a time when NIH/NCI purchasing power is dropping.

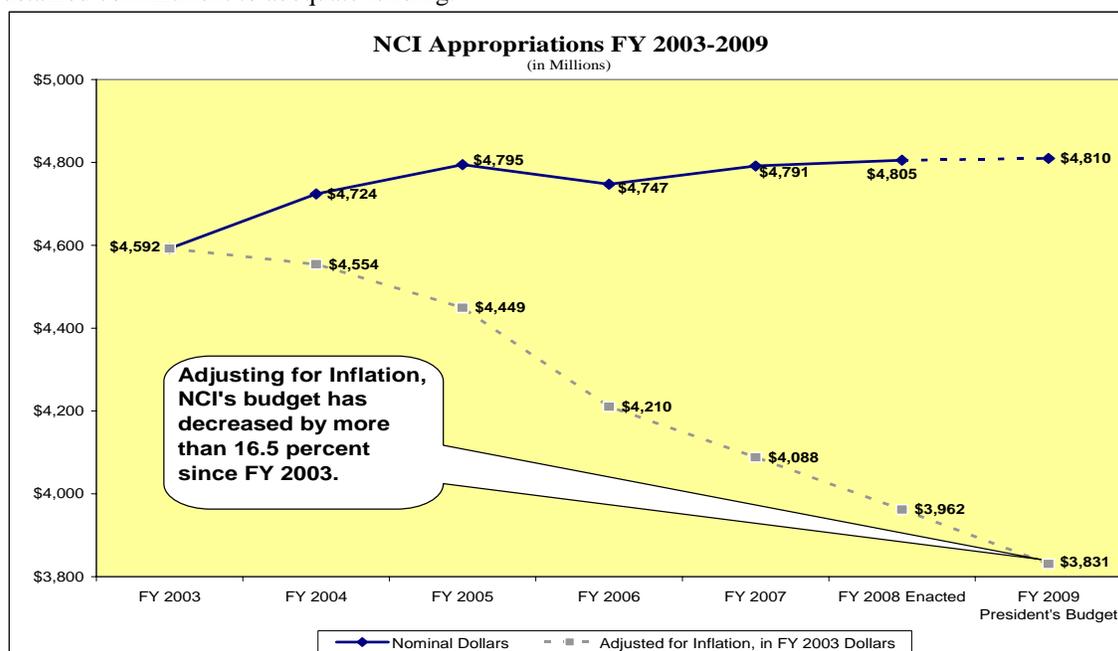
Our population is aging rapidly, and cancer is largely a disease of aging. As a result, NCI estimates that by 2017... the total economic burden of cancer in the United States will be *\$1.82 trillion*.

-John Niederhuber
NCI Director
(May 2008)

Cancer Funding at a Glance

From 1998 through 2003, NIH saw a doubling of its budget, providing – among other things – for significant new investments in cancer research. Since 2003, funding has fallen behind medical inflation and in 2006, the NIH budget was cut for the first time in 35 years. It was the first year that NCI saw its budget cut in more than a decade.

At the same time as we are beginning to see the breakthroughs resulting from our consistent efforts to fund medical research, the NIH and NCI budgets are falling further and further behind. Our continued success is directly tied to our sustained commitment to adequate funding.



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FY 2009 Funding for NIH and NCI

OVAC urges Members of Congress to provide an increase of \$455 million in the FY 2009 LHHS appropriations bill for the NCI, \$13.9 million for NCMHD, and \$1.9 billion for NIH. These increases are an essential step in returning the NIH budget to FY 2003 levels.