

FEBRUARY 2020



Perspectives From the NCI Director *Homecoming and the NCI FY 2020 Budget*

By Norman E. Sharpless, MD



Norman E. "Ned" Sharpless, MD, is director of the National Cancer Institute (NCI). Dr. Sharpless was sworn in as the 15th director of the NCI on October 17, 2017. From April 5 to November 1, 2019, he served as Acting Commissioner of the U.S. Food and Drug Administration.

Commentary Overview

- The Fiscal Year (FY) 2020 federal budget includes a 5-percent increase for the NCI over the FY 2019 budget to advance progress against cancer.
- The number of new cancer drugs and devices approved in recent years, declining mortality, and the spike in applications for R01 grants to the NCI, are all evidence of a "golden age" of cancer research.
- The NCI is dedicated to investing in research infrastructure at the institutions where investigators make their key discoveries.
- As responsible stewards of our nation's investment in cancer research, the NCI carefully plans for budget uncertainty to balance the increasing demand for new grants with previous commitments.

I am thrilled to be back at the helm of the National Cancer Institute (NCI), what I believe may be the best job in federal government. It is a privilege to lead the NCI at this exciting time of progress against cancer.

The Fiscal Year (FY) 2020 federal budget, finalized in late December, includes a 5 percent increase for the NCI over FY 2019. At the NCI, we appreciate the strong and continued support of congressional appropriators and know this support reflects what they hear from their constituents: the collective voice of researchers, caregivers, advocates, and patients. The NCI welcomes the budget increase to advance progress against cancer and ensure that the oncology tools of tomorrow are more powerful than those we have today.

A Golden Age of Cancer Research

Thanks to the tireless efforts of cancer researchers, the field has advanced at an astounding rate over the past two decades. I believe the rapid progress of the present era will be seen as a "golden age" of cancer research; a time when basic investigation of cancer biology has been translated into direct benefits for patients. As examples of this progress, consider the number of new cancer drugs and devices approved in recent years and the long trend of declining mortality of cancer overall. The spike in applications for R01 grants to the NCI—an increase of more than 50 percent since 2013—is further evidence of the present scientific opportunity and the vibrancy of our field.

To be sure, we still have a way to go: there are still too many people dying of cancer in the United States, and there has been frustratingly little progress against certain types of cancer. Despite these caveats, our recent and current progress is something to celebrate, and I expect it to continue for many years to come.

Critical Research Within and Beyond the RPG Pool

Investigator-initiated research, supported through a pool of funds for the NCI's Research Project Grants (RPGs), has been the source of some of the most innovative and transformative ideas in cancer research. For example, Nobel Prizes have been awarded since 2009 to Carol Greider, Elizabeth Blackburn, Bill Kaelin, Gregg Semenza, and Jim Allison for work they performed in part with the support of an investigator-initiated basic science RPG from the NCI. These basic discoveries have not only been important for patients with cancer — they have had broad impact in biomedical research well beyond cancer. Maintaining robust funding for the RPG pool is one of my top priorities, and we have substantially increased funding for RPGs in each of the years that I have been at the NCI.

Beyond the RPG pool, there are several other key priorities for the NCI. I have often argued that the training of the next generation of cancer researchers may be the NCI's most important task, and toward that end, we will use this year's appropriation for strong support of the bedrock programs that train tomorrow's cancer researchers. Correspondingly, we need to invest in research infrastructure at the institutions where these current and future investigators make their key discoveries.

These efforts include training and workforce development awards, 71 NCI-Designated Cancer Centers that serve as the backbone of our portfolio, the Specialized Programs in Research Excellence (SPOREs), and the NCI's practice-changing clinical trials programs (NCTN, NCORP, and others), which enroll patients to clinical trials at over 2,500 academic and community sites across the country. Long-term initiatives like The Cancer Genome Atlas, the National Cryo-EM Facility, and the RAS Initiative also represent critical investments made outside the RPG mechanisms, which build foundational knowledge and contribute to research conducted by the cancer community. Funds dedicated to these successful NCI programs and activities are not factored into the payline policy or RPG success rate.

Making Long-Term Decisions With One-Year Budgets

After some time in various parts of the federal government, I have a much greater understanding of the budgetary challenges that face a complex federal organization like the NCI. In particular, we are tasked with awarding grants well into the future—often five years and sometimes as much as seven years—without certainty about even the next year's budget. As responsible stewards of our nation's investment in cancer research, we must plan carefully for budget uncertainty to balance the increasing demand for new grants with previous years' commitments.

As we announced in the [NCI Bottom Line Blog](#) last month, with our \$297 million budget increase for FY 2020, we are increasing R01 paylines by 25 percent compared to FY 2019 and restoring noncompeting grants to 100 percent of their committed levels. We see this as a significant first step toward healthier paylines and achieving the goal of returning to the 15th percentile in the coming years, if funds are available. But it is also important to place paylines in context: paylines are conservative, prospective guides that help ensure we can afford to award competing grants throughout the fiscal year. In FY 2019, the NCI payline for most R01s was set at the 8th percentile, but 22 percent of R01s that we ultimately funded during FY 2019 scored outside this payline. By using this process of "select pay" to fund applications that score outside the payline, we can support the most creative ideas to address underexplored areas and ensure programmatic balance.

Accelerating Progress

The collective expertise, creativity, and dedication of cancer researchers and cancer caregivers have led us to this moment in cancer research and cancer care. I believe that with continued commitment, thoughtful stewardship, and careful planning, we can not only maintain our current strong pace in cancer research, we can significantly accelerate our progress toward a shared goal of ending cancer suffering for all Americans.

Our Mission

Representing 100 of North America's premier academic and freestanding cancer centers, the Association of American Cancer Institutes is dedicated to reducing the burden of cancer by enhancing the impact of leading cancer centers.

About AACI Commentary

To promote the work of its members, AACI publishes *Commentary*, a monthly editorial series focusing on major issues of common interest to North American cancer centers, authored by cancer center leaders and subject matter experts.



Copyright 2020 | Association of American Cancer Institutes