NCI Appropriations FY 2015 - 2019 (in millions)

Source: NCI Office of Budget and Finance
Highlights of the Past Year
As director of the National Cancer Institute (NCI), I am pleased to share our Annual Plan and Budget Proposal for Fiscal Year 2020. Having been sworn in to my position a little less than a year ago, this marks my first opportunity to present, in this form, the promising results of our country’s investments in biomedical research. This plan directs attention to areas where additional support has unique potential to improve cancer prevention, detection, and treatment.

To place the plan’s focus squarely on those most likely to benefit from NCI research, we have included stories of patients. While each story is unique, they are not that different from that of Mike, a patient I treated for acute leukemia.

Mike started feeling poorly in 2016, and a bone marrow biopsy revealed acute myeloid leukemia (AML). I began his initial treatment with aggressive chemotherapy, which caused difficult side effects and required him to spend more than a month in the hospital. After further therapy, Mike fully recovered, and he has been in remission for more than 2 years.

Mike, and patients like him, are our true partners in cancer research. In addition, NCI has benefitted from concerted, sustained, and bipartisan support from Congress, the Administration, and the American public.

Norman E. Sharpless, M.D., with former patient Mike, whom he treated for acute leukemia in 2016.
FY 2018 RPG POOL
Largest increase since FY 2003

FY 2018 ESIs
NCI exceeded its goal of funding 25% more Early-Stage Investigators

FY 2019
FY 2019 enacted appropriation is a $179M* increase over FY 2018
* including Moonshot funds
Researchers use immune-cell ‘army’ to battle another tough cancer

By Laurie McGinley

NIH grantee wins 2018 Nobel Prize in Physiology or Medicine

The Royal Swedish Academy of Sciences has awarded the 2018 Nobel Prize in Physiology or Medicine to James P. Allison, Ph.D., of the University of Texas MD Anderson Cancer Center, Houston, Texas, and Tasuku Honjo, M.D., Ph.D., of Kyoto University, Japan, for their discoveries concerning cancer immunotherapy, particularly blocking negative immune system regulation.

The Nobel Prize in Physiology or Medicine is awarded annually by the Swedish Academy of Sciences to individuals who have made outstanding contributions to the advancement of medicine.
Moxetumomab Approved by FDA for Hairy Cell Leukemia

September 14, 2018, by NCI Staff

The Food and Drug Administration (FDA) has approved moxetumomab pasudotox (Lumoxiti), a bacterial toxin-based drug, for the treatment of some patients with hairy cell leukemia (HCL). The approval covers the use of moxetumomab in patients with HCL who have already undergone at least two lines of standard treatments.

The action by FDA makes moxetumomab the first treatment approved for this group of patients. The approval was based on the findings from an 80-patient clinical trial sponsored by the drug’s manufacturer, MedImmune.

In the trial, approximately 30% of patients had a complete disappearance of their cancer (complete response) that lasted for a long period, and side effects from the therapy were few and mostly minor. Overall, 75% of patients in the trial had either a partial response or complete response.

Moxetumomab was originally discovered by Ira Pastan, M.D., and colleagues in NCI’s Center for Cancer Research (CCR), and later licensed to MedImmune/AstraZeneca for clinical development.
NCI Press Release

TAILORx trial finds most women with early breast cancer do not benefit from chemotherapy

Posted: June 3, 2018

New findings from the groundbreaking Trial Assigning Individualized Options for Treatment (Rx), or TAILORx trial, show no benefit from chemotherapy for 70 percent of women with the most common type of breast cancer. The study found that for women with hormone receptor (HR)-positive, HER2-negative, axillary lymph node-negative breast cancer, treatment with chemotherapy and hormone therapy after surgery is not more beneficial than treatment with hormone therapy alone. The new data, released at the American Society of Clinical Oncology (ASCO) annual meeting in Chicago, will help inform treatment decisions for many women with early-stage breast cancer.

The trial was supported by the National Cancer Institute
Effect of Aspirin on All-Cause Mortality in the Healthy Elderly


**Death Related to Cancer**

- Hazard ratio, 1.31 (95% CI, 1.10–1.56)
- Aspirin
- Placebo

**Cumulative Incidence (%)**

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<th>Years since Randomization</th>
<th>No. at Risk</th>
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<tr>
<td></td>
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Notable NCI Research – New Projects

Project HOPE: High-Grade Glioma-Qmics in Pediatric and AYA

Project CARE: Glioblastoma Cellular Analysis of Resistance and Evolution

Hepatobiliary Cancer Specialized Program of Research Excellence (SPORE)
The Centers for Medicare & Medicaid Services (CMS) has determined that Next Generation Sequencing (NGS) as a diagnostic laboratory test is reasonable and necessary and covered nationally, when performed in a CLIA-certified laboratory, when ordered by a treating physician and...
Cancer Moonshot Networks

- Pediatric Immunotherapy Discovery and Development
- Immuno-Oncology Translational
- Drug Resistance and Sensitivity
- Rare Tumor Patient Engagement
Cancer Moonshot Funding Authorized Under the 21st Century Cures Act (dollars in millions)
Opportunities & Challenges Ahead
CTAC *Ad Hoc* Working groups

**Glioblastoma**

Co-Chairs:
Walter J. Curran, Jr.
M.D., F.A.C.R.
Chi V. Dang, M.D., Ph.D.

**Radiation Oncology**

_In process_
Leadership transitions

- Director, Center for Global Health (CGH)
- Director, Center for Bioinformatics and Information Technology (CBIIT)
- Director, Cancer Therapy Evaluation Program (CTEP)
- Director, Division of Cancer Prevention (DCP)
- Associate Director, Frederick
Key Focus Areas

**WORKFORCE DEVELOPMENT**
Support the cancer research enterprise by focusing on the workforce of cancer investigators

**BASIC SCIENCE**
Reaffirm our commitment to basic science to drive novel approaches and technologies

**BIG DATA**
Increase data aggregation and interpretation to speed our work across the cancer enterprise

**CLINICAL TRIALS**
Fully realize the power of clinical trials through innovative design, administration, and analyses