NCI Director’s Report: Opportunities and realities for cancer research

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Director, National Cancer Institute

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@NCIDirector
@TheNCI
Today’s Topics:

1. Brief introduction
2. Budget outlook
3. Research highlights
4. Q&A
A little about me

Background in brief:
• Scientist
• Clinician, oncologist
• Educator/mentor
• Health care management and administration
• Leader
• Advocacy
• Basketball player (and aficionado)

Principles I value

Listening, openness
Teamwork, collaboration
Solving complex problems
Research Thread

- HIF1/HIF2 metabolism
- Transcription features
- PET imaging
- Heterogeneity
- “Tumor Juice”
- Macrophages
- Cytokines
- Obesity
NCI’s empowering the next generation

Individual Awards and Corresponding Career Stages

PRED OCTORAL
F30, F31, F99/K00

POSTDOCTORAL
F32, K01, K08, K22, K25, K99/R00

EARLY CAREER STAGE
K01, K08, K25

MID TO ESTABLISHED CAREER STAGE
K25

Awards to Promote Diversity
F31, K01, K08, K22, R25, Diversity Supplement

Institutional Awards
T32, K12, R25
Budget outlook
Where we are today (for FY24)

Potential lapses in appropriation averted:
- September 30, 2023
- November 17, 2023
- February 2, 2024
- March 8

Current Continuing Resolution expires March 22
(halfway through the fiscal year).

Interim grant policies have been set.
Final adjustments will be made when NCI receives a full-year appropriation.
NCI’s budget is determined within the federal budget ecosystem alongside many other national priorities.

**Appropriations bills** for FY24

**Completed on March 9**
- Agriculture, Rural Development, FDA, and Related Agencies
- Commerce, Justice, Science, and Related Agencies
- Energy and Water Development
- Interior, Environment, and Related Agencies
- Military Construction, Veterans Affairs, and Related Agencies
- Transportation, Housing and Urban Development, and Related Agencies

**Pending (continuing resolution through March 22)**
- Defense
- Financial Services and General Government
- Homeland Security
- *Labor, Health and Human Services, Education, and Related Agencies*
- Legislative Branch
- State, Foreign Operations, and Related Programs
How NCI spends its budget

Major areas of NCI’s work span more than one of the categories in the chart:
- Clinical trials
- Training & career development
- Basic science

These efforts are funded through multiple mechanisms and approaches, including:
- Intramural research
- Extramural research
- National networks
- Research project grants

Chart based on FY 2022 actuals and excludes Cancer Moonshot funding.
More at: www.cancer.gov/about-nci/budget

Total appropriated in FY23: $7.3 billion
NCI has been funding more awards year over year

NCI Budget History (appropriations)
FY19 – FY23

NCI Grant Awards (competing and non-competing)
FY19 – FY23
What it would cost to do what we expect for cancer

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>NCI’s Professional Judgment Budget Proposal</th>
<th>Actual NCI Budget</th>
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<tbody>
<tr>
<td>FY 2024</td>
<td>$9.988B</td>
<td>$11.466B</td>
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<tr>
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- **FY 2023 total appropriation:** $7.3 billion
FY 2025 President’s Budget Proposal released last week

$7.839B (discretionary) + $1.448B (mandatory) = $9.287B total

• Proposes $716M of discretionary funding for Cancer Moonshot
• Proposes $1.448B of mandatory funding for Cancer Moonshot
Highlighted Scientific Opportunities

- Improving patients’ lives through symptom science research
- Revolutionizing cancer clinical trials
- Clarifying the impact of the environment on cancer risk
- Harnessing the power of cancer data
- Unraveling the complexity of cancer metastasis

View the budget proposal and the Director’s Message:
www.cancer.gov/research/leading-progress
A “flat” budget is not truly flat – it is a reduction

Why?

- End of 21st Century Cures Act funding for the Cancer MoonshotSM
- Research costs and salaries increase (COLA)
- Non-negotiable expenses for NCI increase each year by $75M to $100M
- RPG cost increases $250M annually to fully fund at current levels

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<th>Available levers to manage constrained budget:</th>
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<td><strong>Research Project Grants (RPGs)</strong></td>
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<td>• Decrease the “payline” for new awards</td>
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<td>• Fund non-competing awards &lt; 100%</td>
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<td><strong>Cancer Center Support Grants (CCSGs)</strong></td>
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<tr>
<td>• Forgo increases for competing renewals</td>
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<tr>
<td>• Decreases to non-competing CCSGs</td>
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<tr>
<td><strong>Cancer Training Awards</strong></td>
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<tr>
<td>• Fewer new awards (F's, K's, T's)</td>
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<tr>
<td><strong>Specialized Programs of Research Excellence (SPORE) Grants</strong></td>
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<tr>
<td>• Fewer new awards and renewals</td>
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<tr>
<td>• Decreases to non-competing awards</td>
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<td><strong>Intramural Research Program</strong></td>
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<tr>
<td>• Planned budget reductions</td>
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<td>• Reduced hiring</td>
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<tr>
<td>• Decreased contractor utilization</td>
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<td>• Trim programs</td>
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Resources about NCI budget and appropriations

Sept. 6, 2023 NCAB meeting: NCI budget overview
www.videocast.nih.gov/watch=52268&start=3723

NCI Bottom Line blog post on FY24 budget outlook:
www.cancer.gov/grants-training/nci-bottom-line-blog/

Updated budget and appropriations page:
www.cancer.gov/about-nci/budget

NCI Fiscal Year 2025
Professional Judgment Budget Proposal:
www.cancer.gov/research/leading-progress
Prevent Cancer
Detect Cancers Early
Develop Effective Treatments
Deliver Optimal Care
Eliminate Inequities
Maximize Data Utility
Optimize the Workforce
Engage Every Person
Goals of the reignited Cancer Moonshot

• Reduce U.S. cancer mortality rate by 50% by 2047
• Improve the experience of people and their families living with and surviving cancer
Recent wins – some examples
Recent wins and accomplishments in cancer research

✓ First FDA approval of cell therapy in solid tumors (tumor-infiltrating lymphocytes, TILs, for advanced melanoma)
✓ Preliminary studies show promise of CAR T-cell therapy to treat glioblastoma
✓ Study reveals tobacco and nicotine use disparities among sexual and gender minorities in California
✓ HHS Framework to Support and Accelerate Smoking Cessation 2024 released
✓ New “SHIP” Trial Network announced: Self-collection for HPV testing to Improve Cervical Cancer Prevention
✓ New Cancer Screening Research Network launched
✓ New NCI Virtual Clinical Trials Office launched
✓ Announcement of new Cancer Grand Challenges teams and challenges

(More details in following slides.)

More at NCI Cancer Currents blog: www.cancer.gov/blog
Breakthrough in cellular therapy for solid tumors – pioneered by decades of NCI research

Tumor-infiltrating lymphocytes (TILs) for advanced melanoma
- First-ever FDA approval of cellular therapy for solid tumors
- Marks a new era of cancer treatment

Exemplary model of collaboration and translational science: basic science > clinical research > treatment development

Considerations: Scaling; application to other cancers; access

Pioneered by Dr. Steven A. Rosenberg
NCI Center for Cancer Research
- ~40 years of basic science research

Contributes to National Cancer Plan goals:

Read full story at: www.cancer.gov/blog
New “SHIP” trial network on self-sampling for cervical cancer prevention announced at White House (January 25, 2024)

Self-collection for HPV testing to Improve Cervical Cancer Prevention (SHIP) Trial Network

- Great example of:
  - **Broad collaboration** – within research and beyond, including federal and private sector
  - **Addressing disparities**
  - **Engaging with the community**, beneficiaries of research

Contributes to National Cancer Plan goals:

- Prevent Cancer
- Detect Cancers Early
- Eliminate Inequities
- Engage Every Person

Readout of White House Cervical Cancer Forum

Last week, the Biden Cancer Moonshot hosted the White House Cervical Cancer Forum to recognize Cervical Cancer Awareness Month and spur action on education, prevention, early detection, and treatment.

As part of the Forum, National Cancer Institute (NCI) Director Kimryn Rathmell announced a new NCI-supported trial to drive progress on cervical cancer prevention. The brand new ‘Last Mile’ Initiative, Self-collection for HPV testing to Improve Cervical Cancer Prevention (SHIP) Trial Network, aims to test the performance of multiple self-collection devices for HPV, the leading driver of cervical cancer, so that cervical cancer screening can be brought closer to the people in the communities that are behind on screening.

www.whitehouse.gov/briefing-room
First large-scale network on cancer screening launched: Cancer Screening Research Network (CSRN)

NIH launches research network to evaluate emerging cancer screening technologies

February 21, 2024

Goal: To evaluate emerging cancer screening technologies (e.g., multi-cancer detection blood tests) – with the ultimate aim to save lives.

CSRN is the first large scale network to focus on cancer screening.

Image: iStock

Contributes to National Cancer Plan goals
New NCI Virtual Clinical Trials Office pilot program

NIH Media Advisory

NIH to address dwindling clinical trial patient enrollment with centralized staffing support

February 29, 2024

What:
- Centralized, remote staff support for NCI-supported clinical trials activities

Aims:
- **Improve accrual and retention rate** to trials – by addressing staffing challenges and burdens of clinical research

Status:
- 6 sites selected for initial pilot phase

*Contributes to National Cancer Plan goals:*
Childhood Cancer Data Initiative (CCDI) continues to make progress toward National Cancer Plan goals

- Recent progress
  - Molecular Characterization Initiative (MCI) expands enrollment to children newly diagnosed with advanced stage neuroblastoma
  - Includes Renal Medullary Carcinoma (RMC)

- Upcoming events
  - March CCDI Community Forum (3/18) – interactive Q&A for community input

WHAT IS THE CCDI MOLECULAR CHARACTERIZATION INITIATIVE?

- Provides state-of-the-art molecular characterization at time of diagnosis to inform optimal treatment decisions.
- A national collaboration between:
  - Childhood cancer community (including COG)
  - Advocates
  - Pediatric oncologists
  - Researchers
  - Data scientists
  - Children, adolescents, and young adults with cancer
  - Families

CCDI continues to make important contributions to National Cancer Plan goals
Cancer Grand Challenges
New teams announced

Five teams, four challenges:

- Reducing cancer inequities
- Understanding mechanisms of early-onset cancers
- Developing drugs for solid tumors in children
- Broadening knowledge about how T cells recognize cancer cells

About Cancer Grand Challenges

- Global funding initiative to advance bold cancer research
- Co-founded by NCI and Cancer Research UK (CRUK) in 2020
- Each team receives up to $25M over five years
- New awardees:
  - Span 12 countries
  - Represent 45 institutions
  - Include ~70 investigators and researchers
What I need from BSA…
Simply…

• Are there areas you would like to hear more or less about?

• Re: RFA’s and PAR’s.
  o Are we in spaces that are better served by foundations or industry?
  o Do we have the right balance of number, too many, too few?
  o Your thoughts on directions to develop new RFA/PAR

• Are we resourcing programs so that they can be successful?
Given the budget realities...

**We must work together** – creatively, collaboratively, and efficiently – to make the best decisions given the tough reality.

Our work is ultimately for the benefit of people, patients and families touched by cancer.

We will use the National Cancer Plan as our roadmap toward ending cancer as we know it.
Thank You!

www.cancer.gov
www.cancer.gov/espanol
1-800-4-CANCER
NClinfo@nih.gov
@NCIDirector
@TheNCI