NCI Director’s Update

National Cancer Advisory Board & Board of Scientific Advisors

Douglas R. Lowy, M.D.
Acting Director

@TheNCI
@NCIDrDougLowy
NCI Moonshot Landscape

Network for Patient Engagement
- Canine Immunotherapy Trials
- Immunotherapy Related P01s
- Characterizing Sequelae at Immunotherapy (Admin Supp)
- Enhancing Applicability of Monomodal Models
- National Center for Cell-Based Therapy (IR)
- Drug Resistance and Sensitivity Research Centers
- Drug Target Related Grants (P01s & STTRs)
- Human Cancer Models Initiative – HCM (R&D)

Data Ecosystem Support for GA4GH (Admin Supps)
- CIMAcs and Data Commons
- Office of Data Sharing (R&D)
- Expand Data Commons and Sharing (R&D)

Fusion Oncoproteins of Childhood Cancer (AFCP)
- Ewing Sarcoma R21
- Pediatric Core (R&D) R21

Dissemination & Implementation Research
- Tobacco Use Treatment in Cancer Patients (Admin Supp)
- Smoking Cessation Program
- HPV Vaccine Trial (IR)
- Comparing Colon Cancer Detection (R01 & Admin Supp)

Integrative Oncogenomics of Multiple Myeloma P01
- Tumor Atlas Pilot Program (R&D)

PD0X Development and Trial Centers (PDTCs)
- Integration & Validation of Technologies (SBIR Grants)
- Cancer Detection Technologies (SBIR/STTR Grants/Contracts)
- Models for Cancer Disparities (SBIR Contracts)

Partnership for Accelerating Cancer (PACT)
- NICI/DOE Collaborations (Plots, JACSCAC, and ATM)
- APOLLO with DOD and VA

Proposed for FY20
- Patient Engagement for Priority Cancer Sequencing (PEACR)
- Advancing Immunotherapy by Mitigating Immune-Related Adverse Events (IRAEs)
- Cancer Moonshot Collaborative Meeting
- PD-1/2/3 Supplements
- Mechanisms of Cancer Drug Resistance (Competing Revisions)

Interactive map available
Contact: Chris Siemon
siemonc@nih.gov
Cancer Moonshot
Funding Authorized under 21st Century Cures Act (dollars in millions)
NCI Appropriations
FY 2015 – 2020 (in millions)

21st Century Cures Act - orange
Childhood Cancer Initiative - green

FY 2015
FY 2016
FY 2017
FY 2018
FY 2019
President's FY 2020
Budget Proposal
FY 2020 House
Mark-up (4/30/2019)

$4,950
$5,215
$5,689
$5,965
$6,144
$5,247
$6,444

$5,389
$5,665
$5,744
$5,002
$5,002
$6,199

$300
$300
$400
$195
$195
$50

$0
$1,000
$2,000
$3,000
$4,000
$5,000
$6,000

NCI/NIH BUDGET PROCESS FOR REGULAR APPROPRIATION

**STEP 1**
White House OMB coordinates with federal agencies to formulate the President’s budget proposal.

**STEP 2**
Congressional appropriations committees consider President’s proposal & prepare legislation.

**STEP 3**
Congress reconciles & finalizes appropriations legislation & sends to the President.

**STEP 4**
President signs the appropriations bill into law making funds available for NIH & NCI.

FY 2019

FY 2020
Dot1L methyltransferase complex with H2B-ubiquitinated nucleosomes

Dr. Cynthia Wolberger
Johns Hopkins University


Serotonin receptor (5-HT3AR)

Dr. Sudha Chakrapani
Case Western Reserve University

Two New NCI Working Groups

- Internal Working Group on Screening and Early Detection
- Board of Scientific Advisors Ad Hoc Working Group on Prevention
Four Areas of Added Emphasis

- Childhood Cancers
- Investigator-Initiated Research
- Health Disparities
- Drug Resistance
Four Areas of Added Emphasis

- Childhood Cancers
- Investigator-Initiated Research
- Health Disparities
- Drug Resistance
Pediatric cancer research conducted or supported by NCI/NIH: 2014 - 2018

Number of Awards

Year | All NIH | NCI | Non-NCI
--- | --- | --- | ---
2014 | 500 | 400 | 100
2015 | 600 | 500 | 100
2016 | 700 | 600 | 100
2017 | 800 | 700 | 100
2018 | 900 | 800 | 100

The chart shows a trend of increasing number of awards from 2014 to 2018, with NCI and All NIH awards growing at a similar rate, and Non-NCI awards also increasing but at a slower pace.
NCI-COG Pediatric MATCH
Interim Analysis Presented at the ASCO Annual Meeting

As of the end of 2018:

• More than 400 patients screened
• 24% of patients were eligible to receive a targeted therapy treatment in the trial, representing a wide spectrum of different childhood cancers
  • This is significantly higher than the projected 10% match rate
• 10% of patients who had their tumors sequenced have already received a targeted therapy treatment in the trial

NCI-COG Pediatric MATCH has created a collaborative framework for efficient collection, processing, and sequencing of refractory pediatric cancers.
Childhood Cancer Research Presidential Initiative

- President’s FY 2020 budget proposal includes $50M
- White House has convened several stakeholder events
Childhood Cancer Data Initiative (CCDI)

Facilitate the sharing of childhood cancer data from multiple sources through a connected data infrastructure

Identify opportunities to align and integrate multiple data sources to make data work better for patients, clinicians, and researchers

Maximize every opportunity to improve treatments and outcomes for children with cancer
Childhood Cancer Data Initiative – Next Steps

**Scientific Planning Meeting**
July 29-31, 2019
Washington, D.C.

*For more information, visit*  
[Cancer.gov > search > CCDI](https://cancer.gov)
Four Areas of Added Emphasis

- **Investigator-Initiated Research**
- **Health Disparities**
- **Therapeutic Resistance**
- **Childhood Cancers**
President Jimmy Carter
Metastatic melanoma

Senator John McCain
Glioblastoma
Contribution of NIH funding to new drug approvals 2010–2016

Ekaterina Galkina Cleary, Jennifer M. Beierlein, Navleen Surjit Khanuja, Laura M. McNamee, and Fred D. Ledley

NIH funding contributed to every one of the 210 new drugs approved by the Food and Drug Administration from 2010–2016.
Four Areas of Added Emphasis

- Childhood Cancers
- Investigator-Initiated Research
- Health Disparities
- Therapeutic Resistance

Heart disease and cancer mortality rates, age adjusted

Heart Disease

Cancer

Moy et al, MMWR Surveil Summ, 2017

Heart disease and cancer mortality rates, age adjusted
NCI Activities in Rural Cancer Control

- 21 Cancer Centers received supplements in FY18 to focus on rural populations.
- RFA-CA-18-026 (R01) *Improving the Reach and Quality of Cancer Care in Rural Populations* (Closed)

**Additional relevant FOAs**

| Collaborative Minority Health and Health Disparities Research with Tribal Epidemiology Centers | R21 PAR-17-483  R01 PAR-17-484 | 12/5/2019 |
| Research to Improve Native American Health | R01 PAR-17-496  R21 PAR-17-464 | May 14, 2020 |
| Administrative Supplements to Support Cancer Disparity Collaborative Research | P30 PA-18-842 | 9/10/2019, 9/10/2020 |
Four Areas of Added Emphasis

- Childhood Cancers
- Investigator-Initiated Research
- Health Disparities
- Therapeutic Resistance
Co-Chairs: Percy Ivy (DCTD) & Jeff Hildesheim (DCB)

Program Director, Drug Resistance & Sensitivity Network: Austin Doyle (DCTD)
**DRSN Mission**

To conduct preclinical research focused on innovative strategies to understand and combat mechanisms of tumor resistance (intrinsic and acquired) and/or exploit tumor sensitivities to anti-cancer therapies.

- Serve as a critical component to NCI’s CTEP clinical drug development program/clinical trials network
- Instrumental to providing novel agents and aiding novel combinations/therapeutic strategies in clinical settings
DRSN (RFA-CA-17-009)

NCI DRUG RESISTANCE & SENSITIVITY NETWORK

Steering Committee

UCSF-Stanford
(Trever Bivona, Calvin Kuo)
Lung Cancer

MGH-Broad-MIT/Koch
(Ryan Corcoran, Keith Flaherty)
CRC, Melanoma, Lung

MSK/UW-Fred Hutch
(Charles Sawyers, Pete Nelson)
Prostate Cancer

Mayo AZ/Roch-U Minn
(Keith Stewart, Leif Bergsagel, Shaji Kumar)
Multiple Myeloma

OHSU
(Jeff Tyner, Brian Druker)
AML

- Long. Biopsies
- Rapid Autopsies
- PDOs
- PDXs
- Single Cell Tech
- Omics
An integral part of this U54 network

PAR-18-752 Administrative Supplements to Support Collaborations with the DRSN
NCI’s Cancer Information Service

Questions about the contract recompetition should be directed to NCI’s Office of Acquisitions: cancer.gov > search: acquisitions
Recent Leadership Appointments

Chief Data Scientist, DCEG - Jonas Almeida
Associate Director, NCI at Frederick - Sara Hook
Director, CBIIT - Tony Kerlavage
Budget Director - Weston Ricks
Chief Information Officer - Jeff Shilling
Leadership Vacancies

Director, Center for Global Health (CGH)
Bob Croyle, Acting

Associate Director, Cancer Therapy Evaluation Program (CTEP)
Meg Mooney, Acting

Director, Division of Cancer Prevention (DCP)
Debbie Winn, Acting
In Memoriam

LaSalle D. Leffall, Jr., MD

Henry T. Lynch, MD