NCI Director's Report

NCI Council of Research Advocates

Norman E. Sharpless, M.D. March 10, 2021

@NCIDirector
@TheNCI



Agenda

- 50th Anniversary of the National Cancer Act
- Cancer Moonshot Midpoint
- NCI Appropriations & Paylines
- Childhood Cancer Data Initiative (CCDI)
- NCI Research Highlights
- Equity and Inclusion





"The President and I stand with you. This is the fight of our lives, and we will never stop working to end this disease. And together, I know that we're going to go farther than ever before."

Dr. Jill Biden Virtual Visit to NCI February 3, 2021

I'd love to be the President to preside over the end of cancer as we know it. These are the folks in the House and Senate who would love to preside over cancer —the end of cancer as we know it.

> President Joe Biden Bipartisan Meeting on Cancer, Oval Office March 3, 2021

NCA-50 commemoration launched February 8

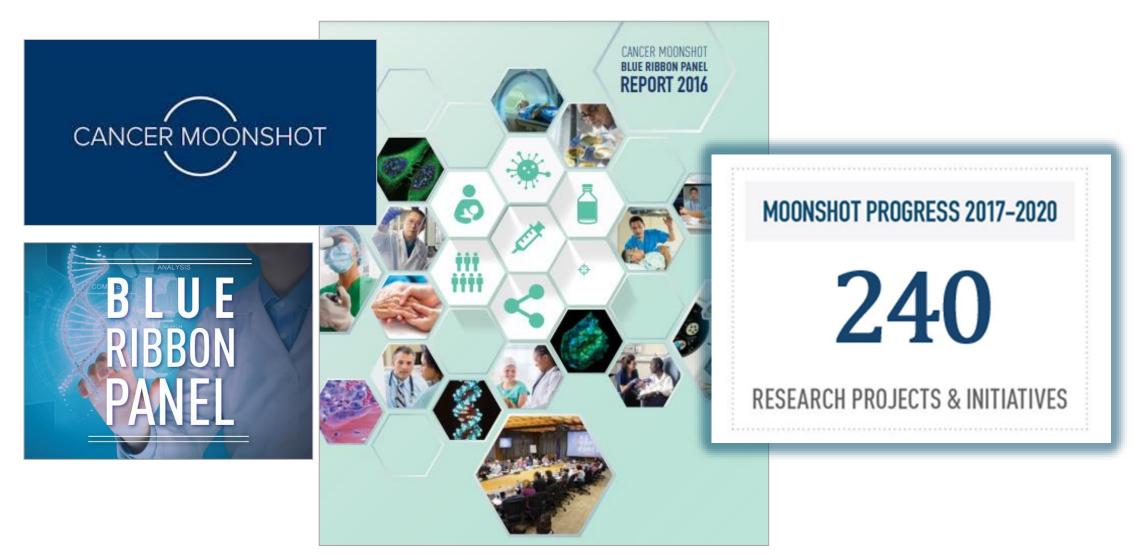








Cancer Moonshot

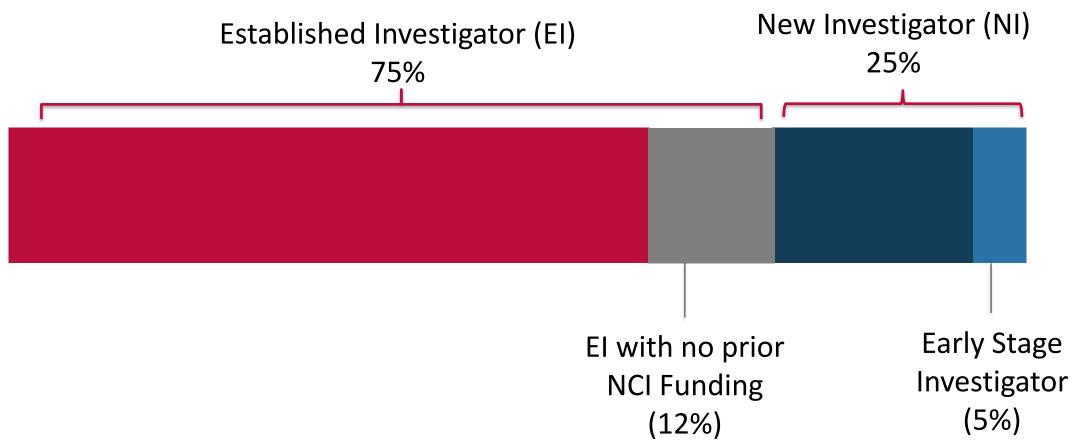


Cancer Moonshot Initiatives (2017-2020)

	FY17				FY18		FY19		FY20
	Network for Patient	Biobank (R&D)	#ClinicalTrialsSM Workshop	-	CCR Rare Tumor Patient Engagement Network (IR)	H	Personal Control of Data Workshop Portal to Support		Participant Engagement and Cancer Genome Sequencing (PE-CGS) Research Network
	Engagement	Canine Immunotherapy Trials Pancreatic Cancer Microenvironment Network	Immunotherapy Related P01s Characterizing Sequelae w/ Immunotherapy (Admin Supp)	1	Immuno-Oncology Translation Network (IOTN): Data Centers	V	Patient Engagement (R&D) IOTN Immuno-Engineering for Immunotherapy (i3) Centers		Community Liaison-based Patient Engagement for (Admin Supp)
	Immuno- therapy Network	Metabolic Reprogramming in Tumor Immunity R01	Enhancing Applicability of Mammalian Models		IOTN Immunoprevention & Immunotherapy Research Projects		IOTN Immunoprevention Projects Discovery and Dissemination of		Mitigating Immune-Related Adverse Events (irAEs)
		National Center for Cell-Based Therapy (IR)		1	Research to Identify & Treat Cancer Sensitivity/Resistance (Admin Supp)		TCR Gene Therapy (IR)	$\ \cdot \ $	Moonshot Collaborative Meeting
	Overcome Drug Resistance	Drug Resistance and Sensitivity Research Network	Drug Target Related Grants (P01s & STTRs)	N	MasterLymph: Precision Medicine to Improve DLBCL Therapy (IR & R&D)	/	IOTN Reissuance DRSN Supplements to Support	<u> </u>	TCR Gene Therapy Multicenter Trial Supplement (IR)
///	Resistance	Conditing Procedure Track	(1010 4011110)	,	GENIE Supplements	į)	Collaborations (Admin Supp)		Collaborative Cancer Moonshot Projects (Admin Supp)
///	Cancer Data	Support for GA4GH (Admin Supps)	Data Ecosystem (R&D)	1/	Cancer Data Aggregator (R&D)	N	Imaging Data for APOLLO (R&D)	h	Mechanisms of Cancer Drug
111/	Ecosystem	Office of	CIMAC-CIDC Network		Pediatric Immunotherapy Discovery		Expand Data Commons (R&D)]\\[_] \\[_]\\[Resistance (Comp Rev)
	Intensify	Data Sharing (R&D)	Expand Data Commons (R&D)		& Development Network		PI-DDN Reissuance		DRSN Coordinating Center (Admin Supp)
2016 lue Ribbon	Research on Childhood	Ewing Sarcoma R21	Pediatric Core (R&D)		Fusion Oncoproteins in Childhood Cancers (FusOnC2) Consortium		FusOnC2 Reissuance		De-Identification of Narrative
Panel	Cancers	Fusion Oncoproteins of Childhood Cancer (APRC)	Cancer Immunotherapy Trials & Network - Pediatric		Assessing Tolerability of Treatment Using CTCAE & PRO-CTCAE		PRO Measures to Address Accrual Barriers to Underserved (R&D)		Clinical Text Documents (R&D)
11111	Symptom Management				Improving Management of	И	STAR Act: Improving Outcomes for Pediatric & AYA Cancer Survivors		PI-DDN Supplements FusOnC2 Supplements
	Management	Dissemination & Imple	ementation Research	հ Մ	symPtoms Centers (IMPACT) cGVHD Symptom Measure (IR)	1	Implementation Science Centers for	1 V	Optimizing Management and
11111	Prevention &	Tobacco Control in Canc	er Patients (Admin Supp)		Accelerating CRC Screening with	i I	Cancer Control (ISC3)	1	Outcomes for Cancer Survivors
1111	Detection Strategies	Smoking Cessation R01	HPV Vaccine Trial (IR)		Implementation Science (ACCSIS)		Communication & Decision Making for Inherited Cancer Syndromes		Diffusion, Sustainability, and
1111		Comparing Colon Cancer De	700 PRO 10 TO 10 T		Approaches to Identify and Care for Inherited Cancer Syndromes		Accelerated Control of Cervical Cancer (Admin Supps)		Leveraging of 3CI (Admin Supp
1111	Retrospective Analysis of	Retrospective Tun	nor Analysis (R&D)	\ \	Prostate Cancer in Men of African Ancestry (RESPOND)	r	ACCSIS Reissuance	1	3D Technologies to Accelerate HTAN Efforts
	Biospecimens	Integrative Oncogenomics of Multiple Myeloma P01	Tumor Atlas Pilot Projects (R&D)		Dissemination of CRC Screening for Native Americans (Admin Supp)		Approaches to Identify and Care for Inherited Cancer Syndromes Reissuance		APHIROM Exploratory and
///	Human Tumor Atlases	PDX Development and Trial Centers (PDTCs)	Integration & Validation of Technologies (R33/SBIR)		Control of Cervical Cancer (R&D)		Human Tumor Atlas Research		Developmental Research HCMI: Next Gen Technology for
11	Audobo	Advancing BRP Highlighted	Cancer Detection Technologies		Molecular Profiling to Predict Responses - MP2PRT (R&D)		(Admin Supp)		Next Gen Cancer Models Next Gen Models Supplement
11	New Cancer	Technologies (APTRC Supp) (SBIR/STTR Grants/Contracts) Models for Cancer Disparities (SBIR Contracts)			Human Tumor Atlas Research] [APHIROM (Admin Supps) SBIR Contracts for Innovative Tech		Data Visualization Methods and
\	Technologies	Human Cancer Models Initiative – HCMI (R&D)]\	Centers & Coordinating Center		PDXNet Supplements Reissuance		Tool Development Projects
1		Partnership for Accelerating	NCI-DOE Collaborations	1	Minority-PDTCs	И	Tech Prize Competition: Metadata		Data Visualization Supplements M-PDTC Supplements
	Partnerships	Cancer Therapies (PACT)	(Pilots, JDACS4C, and ATOM)		PDXNet (Admin Supp)		Automation DREAM Challenge	1	SBIR Contracts for New Tech
		APOLLO with DOD and VA			PSMA-PET of Prostate Cancer (IR) SBIR Contracts for Enabling Tech	-[]	CCR NCI Program for Natural Product Discovery (IR)	Į.	

25% of Moonshot Extramural Pls are New Investigators

343 Extramural Moonshot Pls (FY17-FY20)



Cancer Moonshot Seminar Series

Generation of Human Tumor Atlases

Christina Curtis, Ph.D., Stanford University March 25, 2021, 12:00–1:00 pm ET

Updates in CAR T Cell Therapies

Carl June, M.D., University of Pennsylvania April 22, 2021, 12:00–1:00 pm ET

3-D Projection Electrophoresis: Protein Profiling with Single-Cell Resolution

May 27, 2021, 12:00–1:00 pm ET Amy Herr, Ph.D. University of California, Berkeley



Cancer Currents: An NCI Cancer Research Blog

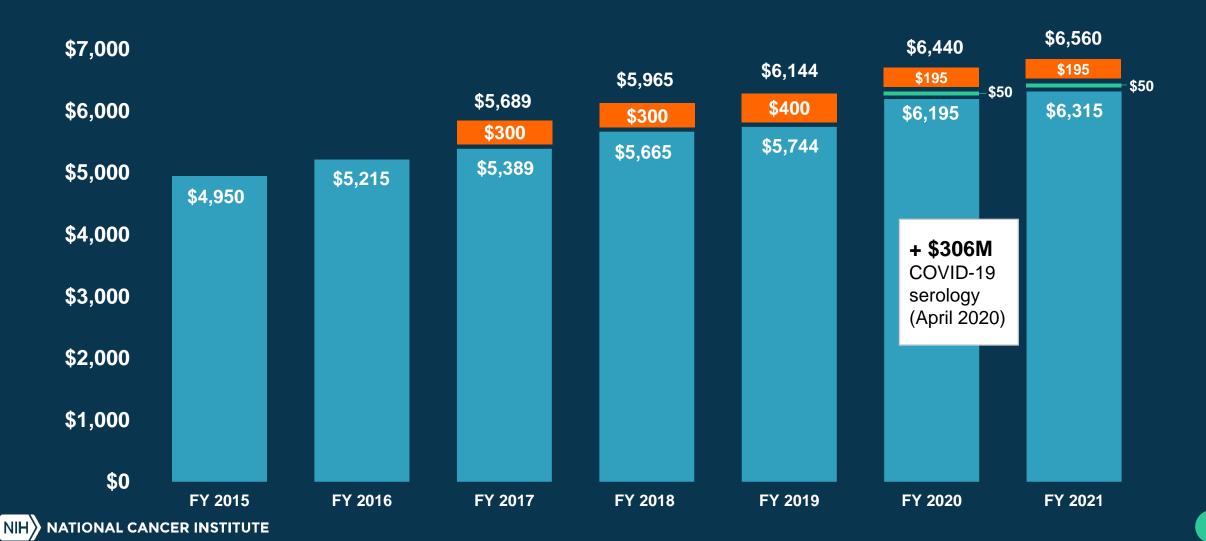
The Cancer Moonshot: A Midpoint Progress Update

January 11, 2021, by Norman E. Sharpless, M.D., and Dinah Singer, Ph.D.

Registration is required for seminars. Previous events available online.



NCI Appropriations FY 2015 – 2021 (in millions) 21st Century Cures Act - orange Childhood Cancer Initiative - green



NCI Paylines for FY 2021

GRANT TYPE	PAYLINE
R01 Grants for Established and New Investigators	11 th Percentile
R01 Grants for Early- Stage Investigators (ESIs)	16 th Percentile
R21 Exploratory Grants	9th Percentile

Non-competing grants will be funded at 100%.



Funding from Congress Allows NCI to Raise Grants Payline

February 4, 2021, by Dr. Norman E. Sharpless

New CCDI Engagement Committee



Childhood Cancer
Data Initiative



Greg Aune, M.D.
UT Health San Antonio



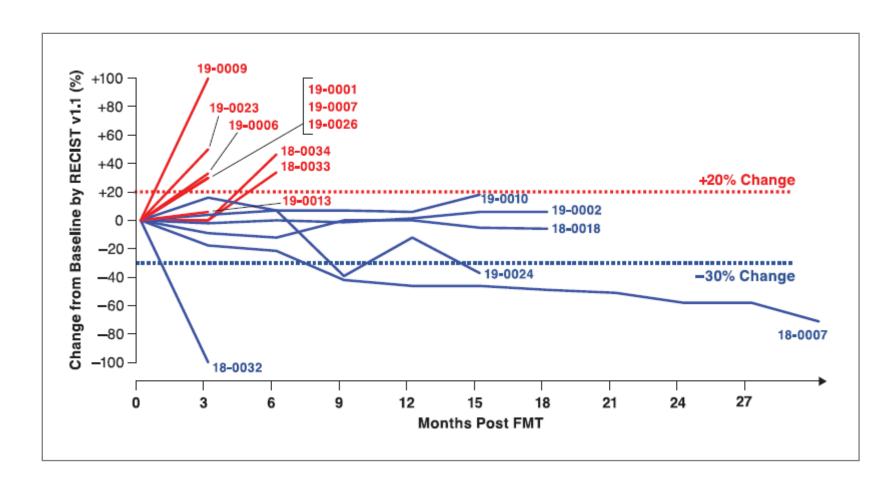
Brigitte C.
Widemann, M.D.
National Cancer
Institute



Lee J. Helman, M.D.
University of Southern California

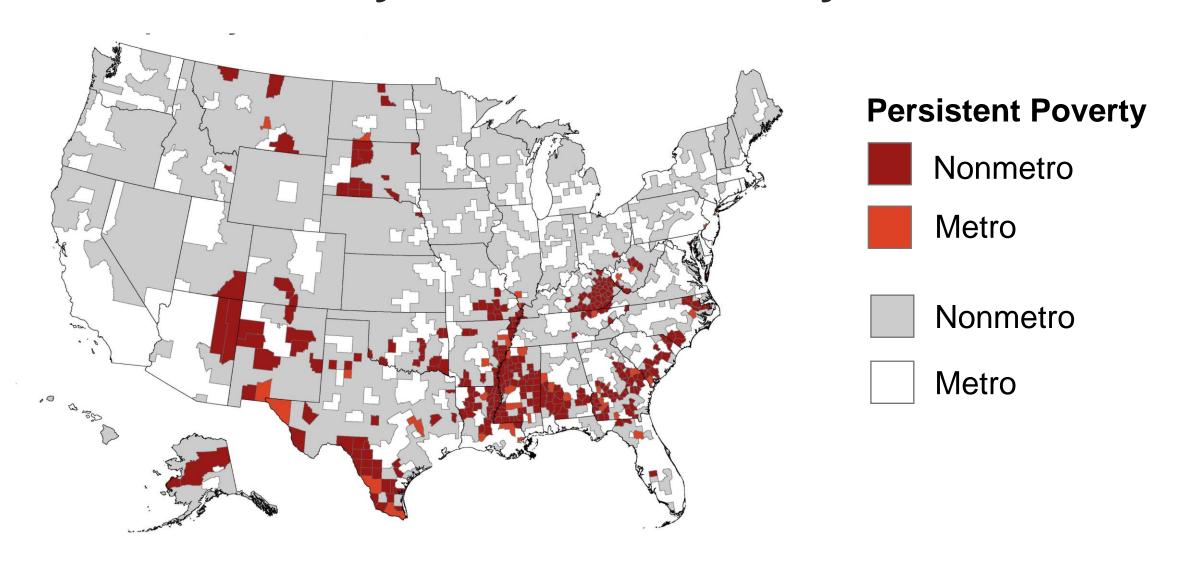
Fecal microbiota transplant in melanoma

Fecal microbiota transplant promotes response in immunotherapyrefractory melanoma patients





Persistent Poverty and Cancer Mortality Rates



USPSTF Updated Recommendations for Lung Cancer Screening – Released March 9, 2021

Adults aged **50 to 80** years who have a **20 pack-year smoking history** and currently smoke or have quit within the past 15 years:

Previously 55 to 80 and 30 pack years

- Screen for lung cancer with low-dose computed tomography (CT) every year.
- Stop screening once a person has not smoked for 15 years or has a health problem that limits life expectancy or the ability to have lung surgery.

Recommendation based in part on modeling report from NCI's CISNET.



Telehealth & Cancer Care Delivery Webinar Series



February 4, 2021

Post-Treatment Follow-up Care for Survivors of Lung and Colorectal Cancer through Telehealth Self-Management Skills Building

March 4, 2021

Findings from an NCI Request for Information (RFI): Stakeholder Input on Scientific Gaps and Research Needs Related to Delivery of Cancer-related Care via Telehealth

June 11, 2021

Enhancing Cancer Care of Rural Dwellers Through Telehealth and Engagement

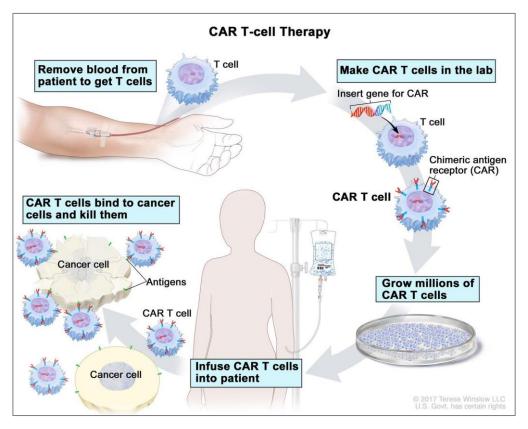
Past events available for viewing; additional events to follow.

Registration is required. healthcaredelivery.cancer.gov/



CAR T-cell manufacturing



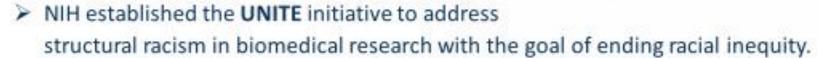


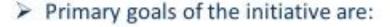
https://www.cancer.gov/about-cancer/treatment/types/immunotherapy/t-cell-transfer-therapy



NIH's Commitment to Ending Structural Racism

NIH is committed to instituting new ways to support diversity, equity, and inclusion, and identifying and dismantling any policies and practices that may harm our workforce and our science.





- U Understanding stakeholder experiences through listening and learning
- N New research on health disparities, minority health, and health equities
- I Improving the NIH culture and structure for equity, inclusion and excellence
- Transparency, communication, and accountability with our internal and external stakeholders
- E Extramural research ecosystem: changing policy, culture and structure to promote workforce diversity



nih.gov/ending-structural-racism



FIRST

Faculty Institutional Recruitment for Sustainable Transformation

- Foster sustainable institutional culture change
- Promote inclusive
 excellence by hiring a
 diverse cohort of new
 faculty
- Support faculty
 development, mentoring,
 sponsorship, and
 promotion

- NIH Common Fund Initiative commonfund.nih.gov/first
- 12 staggered awards: 4 per year x 3 years
- Highly Resourced Institutions (HRI) and Limited-Resourced Institutions (LRI) may apply independently or in partnership
- Develop and implement faculty cohort models for the simultaneous hiring of a diverse group of research faculty
- Programming to reduce isolation, increase community building, and foster career advancement
- See **NOT-RM-20-022**, **-023**

NCI Equity and Inclusion Program

EQUITY COUNCIL

Chair Ned Sharpless

Vice Chair
Paulette Gray

Mark Alexander Andrea Apolo Nelvis Castro Bob Croyle Montse Garcia-Closas Anne Lubenow Ji Luo Donna Siegle Dinah Singer Sanya Springfield

WORKING GROUP 1

Enhancing
Research to
Address Cancer
Health Disparities

CO-CHAIRS

Jim Doroshow
Worta McCaskillStevens
Tiffany Wallace

WORKING GROUP 2

Ensuring Diversity of Thought and Background in the Cancer Research Workforce

CO-CHAIRS

LeeAnn Bailey
Susan McCarthy
Glenn Merlino

WORKING GROUP 3

Promoting an Inclusive and Equitable Community at NCI

CO-CHAIRS

Shannon Bell Paige Green Satish Gopal

WORKING GROUP 4

Systematic Tracking and Evaluation of Equity Activities

WORKING GROUP 5

Communications and Outreach for Equity Activities

CO-CHAIRS

Michelle Bennett Doug Lowy

CO-CHAIRS

Peter Garrett Angela Jones Anita Linde



Discussion