

# NCI Director's Report

---

Norman E. Sharpless, M.D.

*5<sup>th</sup> Virtual Meeting of the Board of Scientific  
Advisors*

*March 15, 2021*

@NCIDirector  
@TheNCI

# Agenda

- 50th Anniversary of the National Cancer Act
- Cancer Moonshot Midpoint
- NCI Appropriations & Paylines
- COVID-19 Impacts and Activities
- CCDI
- Equity and Inclusion
- NCI Research Highlights



*“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



MOONSHOT PROGRESS 2017-2020

# 240

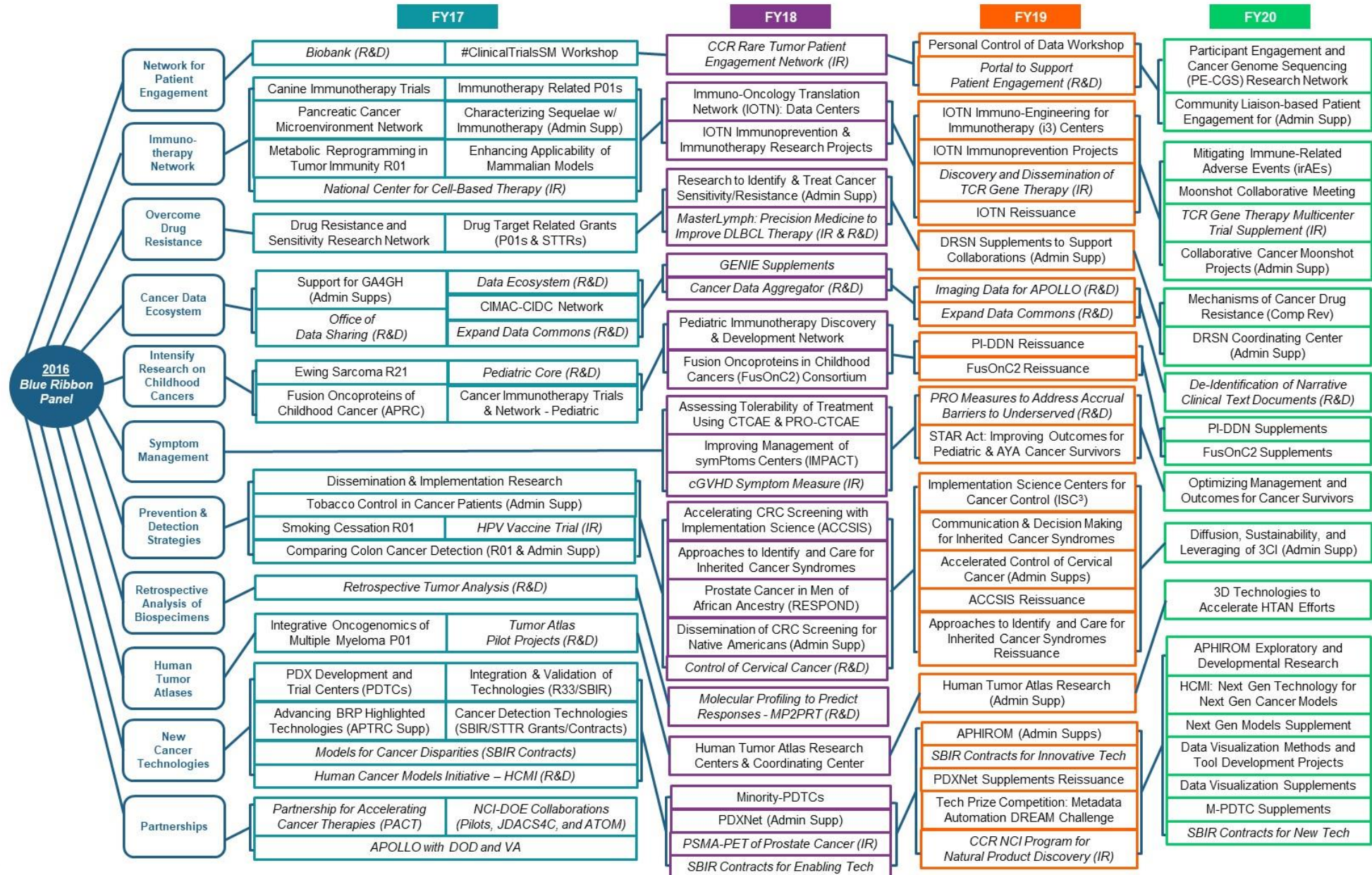
RESEARCH PROJECTS & INITIATIVES

**Cancer Currents: An NCI Cancer Research Blog**

**The Cancer Moonshot: A Midpoint Progress Update**

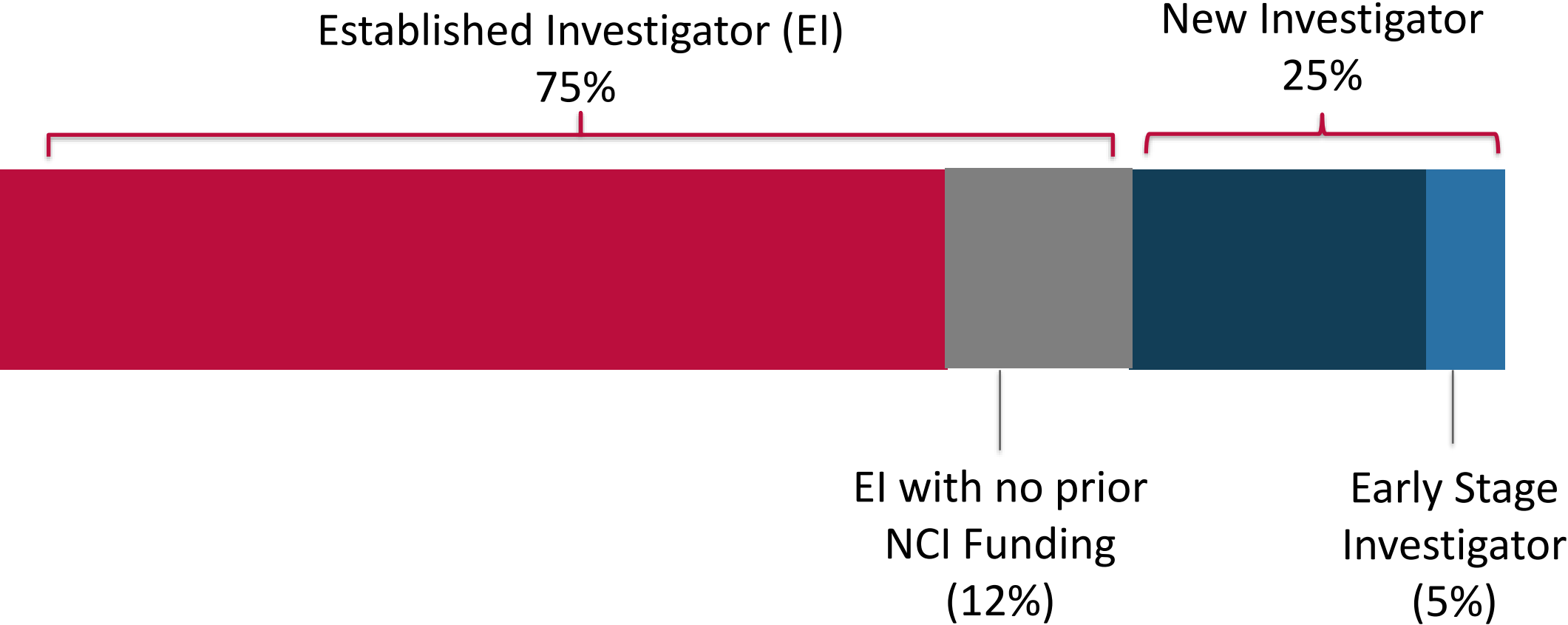
January 11, 2021, by Norman E. Sharpless, M.D., and Dinah Singer, Ph.D.

# Cancer Moonshot Initiatives (2017-2020)



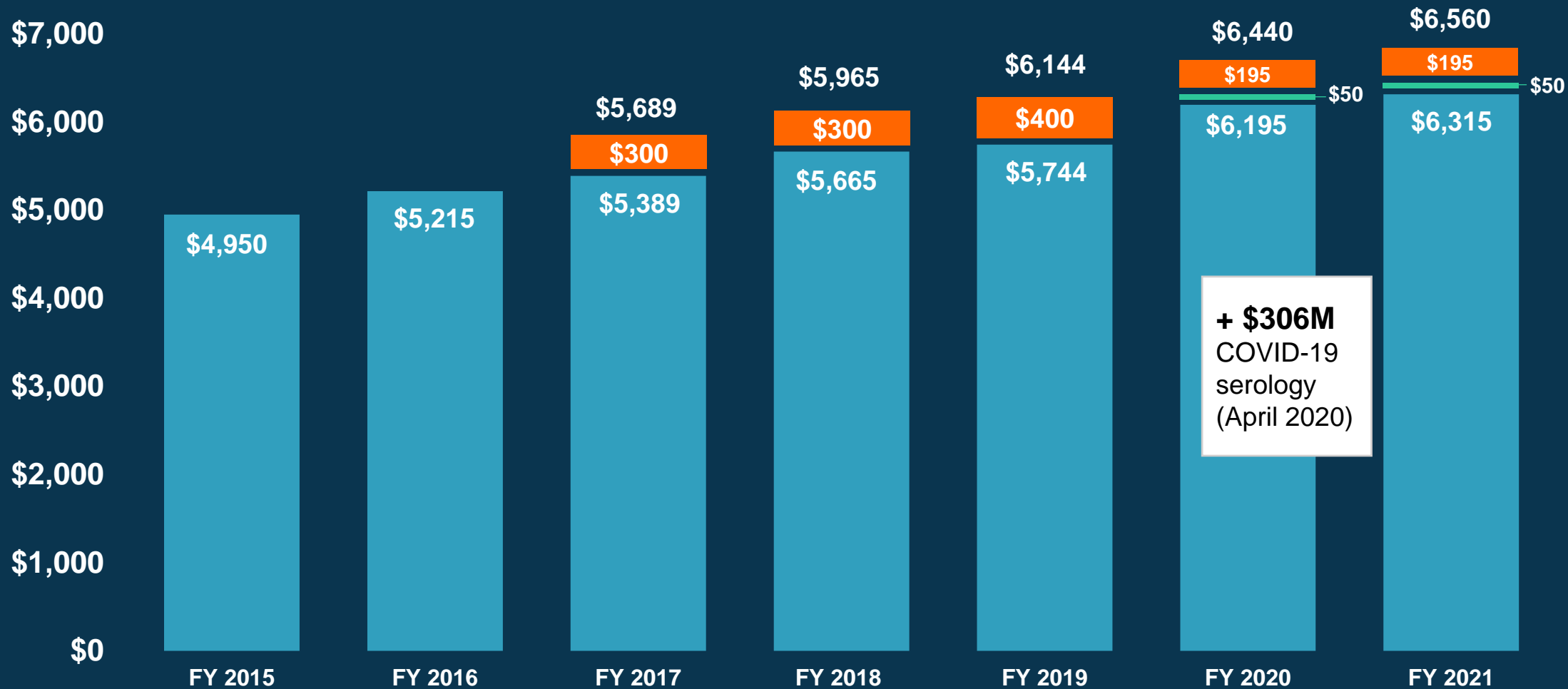
# 25% of Moonshot Extramural PIs are New Investigators

**343** Extramural Moonshot PIs (FY17-FY20)



# NCI Appropriations FY 2015 – 2021 (in millions)

21<sup>st</sup> Century Cures Act - orange  
Childhood Cancer Initiative - green





# NCI Paylines for FY 2021

GRANT TYPE	PAYLINE
<b>R01</b> Grants for Established and New Investigators	<b>11<sup>th</sup> Percentile</b>
<b>R01</b> Grants for Early-Stage Investigators (ESIs)	<b>16<sup>th</sup> Percentile</b>
<b>R21</b> Exploratory Grants	<b>9<sup>th</sup> Percentile</b>
<b>Non-competing grants</b> will be funded at 100%.	



**NCI Bottom Line: A Blog about Grants and More**

[Subscribe](#)

**Funding from Congress Allows NCI to Raise Grants Payline**

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

# NCI COVID-19 activities

## FOUNDATIONAL SEROLOGY

### Serological Sciences Network (SeroNet)

- 8 Centers of Excellence
- 13 Research Projects
- 4 Capacity Building Centers
- FNL Serology Lab & Network Coordinating Center

## CLINICAL & TRANSLATIONAL SEROLOGY

### Sero-protection Studies:

- Mount Sinai, University of Arizona
- NIH All of Us
- NCI SEER + Health Verity

### COVID-19 Seroprevalence Studies Hub (SeroHub)

Antibody test performance  
evaluation, with FDA

Standard reference serum

Clinical trials for COVID-19  
therapeutics

- Tocilizumab
- CD24Fc

## SUPPORT FOR CANCER RESEARCH AND CARE AMID THE PANDEMIC

NCI COVID-19 in Cancer  
Patients Study (NCCAPS)

Flexibilities for grantees

Clinical trials adaptations

Modeling to predict long-term  
cancer outcomes

## ADDITIONAL COVID-19 RESEARCH

- Excess Mortality Study
- Digital Health Solutions (with NIBIB)
- ACTIV (trans-NIH)

# NCI COVID-19 in Cancer Patients Study (NCCAPS)

875

TRIAL SITES  
ACTIVATED  
IN

50

STATES  
+ DC, PUERTO  
RICO, AND  
CANADA

Special emphasis on  
minority,  
underserved and  
rural communities

Enrolled  
patients will  
be followed  
for 2 years

974

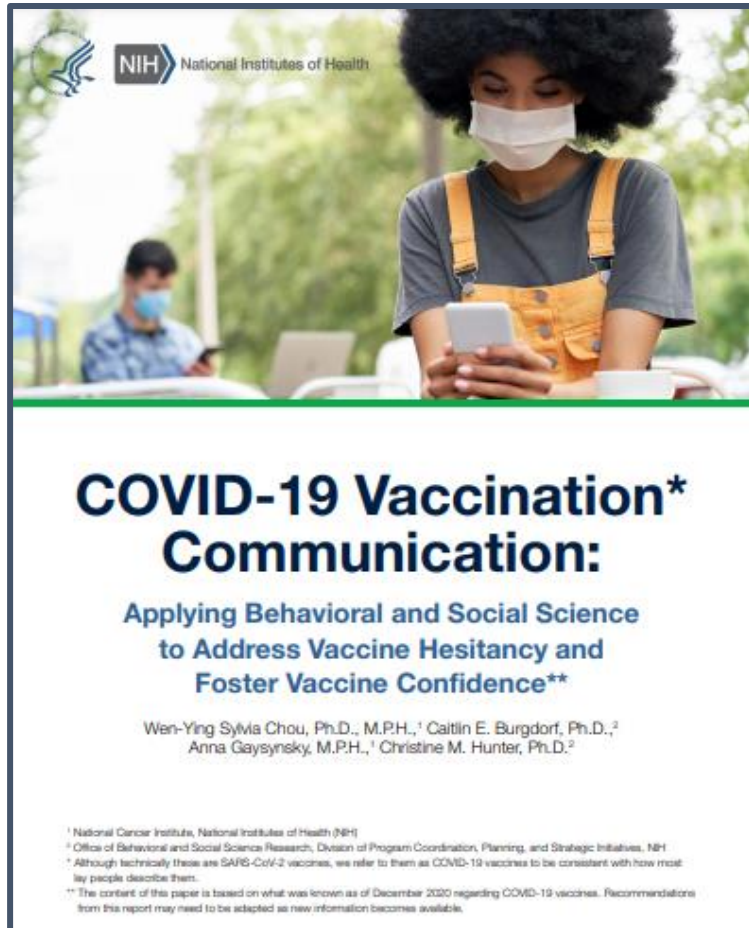
PATIENTS  
ENROLLED

Now open to pediatric  
patients

Aims to enroll  
2,000 patients  
across 1,000  
sites in U.S.

Launched May 21  
Conception to Launch in  
6 weeks

# NCI Research on Vaccine Hesitancy



*“...communication about COVID-19 vaccines can benefit from drawing on the extant social and behavioral science literature about successful strategies to influence health decisions and behaviors.”*

**NCI**

*Wen-Ying Sylvia Chou, Ph.D., M.P.H.*

*Anna Gaysynsky, M.P.H.*

**NIH Office of Behavioral and Social Sciences Research**

*Caitlin E. Burgdorf, Ph.D.*

*Christine M. Hunter, Ph.D.*

# 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

# 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.
- NIH established the **UNITE** initiative to address structural racism in biomedical research with the goal of ending racial inequity.
- Primary goals of the initiative are:
  - 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
  - T** 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](https://nih.gov/ending-structural-racism)

# NCI Equity and Inclusion Program

<p><b>EQUITY COUNCIL</b></p>	<p><b>Chair</b> Ned Sharpless</p> <p><b>Vice Chair</b> Paulette Gray</p>	<p>Mark Alexander Andrea Apolo Nelvis Castro Bob Croyle</p>	<p>Montse Garcia-Closas Anne Lubenow Ji Luo</p>	<p>Donna Siegle Dinah Singer Sanya Springfield</p>
<p><b>WORKING GROUP 1</b> <i>Enhancing Research to Address Cancer Health Disparities</i></p> <p><b>CO-CHAIRS</b></p> <p>Jim Doroshow Worta McCaskill-Stevens Tiffany Wallace</p>	<p><b>WORKING GROUP 2</b> <i>Ensuring Diversity of Thought and Background in the Cancer Research Workforce</i></p> <p><b>CO-CHAIRS</b></p> <p>LeeAnn Bailey Susan McCarthy Glenn Merlino</p>	<p><b>WORKING GROUP 3</b> <i>Promoting an Inclusive and Equitable Community at NCI</i></p> <p><b>CO-CHAIRS</b></p> <p>Shannon Bell Paige Green Satish Gopal</p>	<p><b>WORKING GROUP 4</b> <i>Systematic Tracking and Evaluation of Equity Activities</i></p> <p><b>CO-CHAIRS</b></p> <p>Michelle Bennett Doug Lowy</p>	<p><b>WORKING GROUP 5</b> <i>Communications and Outreach for Equity Activities</i></p> <p><b>CO-CHAIRS</b></p> <p>Peter Garrett Angela Jones Anita Linde</p>

# Cancer Grand Challenges

Expressions of interest  
accepted until **April 22, 2021**

- Understand how cells and tissues maintain “normal” phenotypes while harboring oncogenic mutations and how they transition to become a tumor
- **Determine the potential benefits and risks of e-cigarette use**
- Develop novel therapies to target unique features in solid tumors in children
- **Systematically deliver macromolecules to intracellular targets for therapeutic benefit in cancer**
- Understand and exploit senescence to improve cancer treatment
- Determine how inflammation causes cancer
- **Identify and target dormant cancer cells**
- Understand the biology of extrachromosomal DNA (ecDNA) generation and action and develop approaches to target these mechanisms in cancer
- **Understand and reverse cachexia and declining performance status in cancer patients**



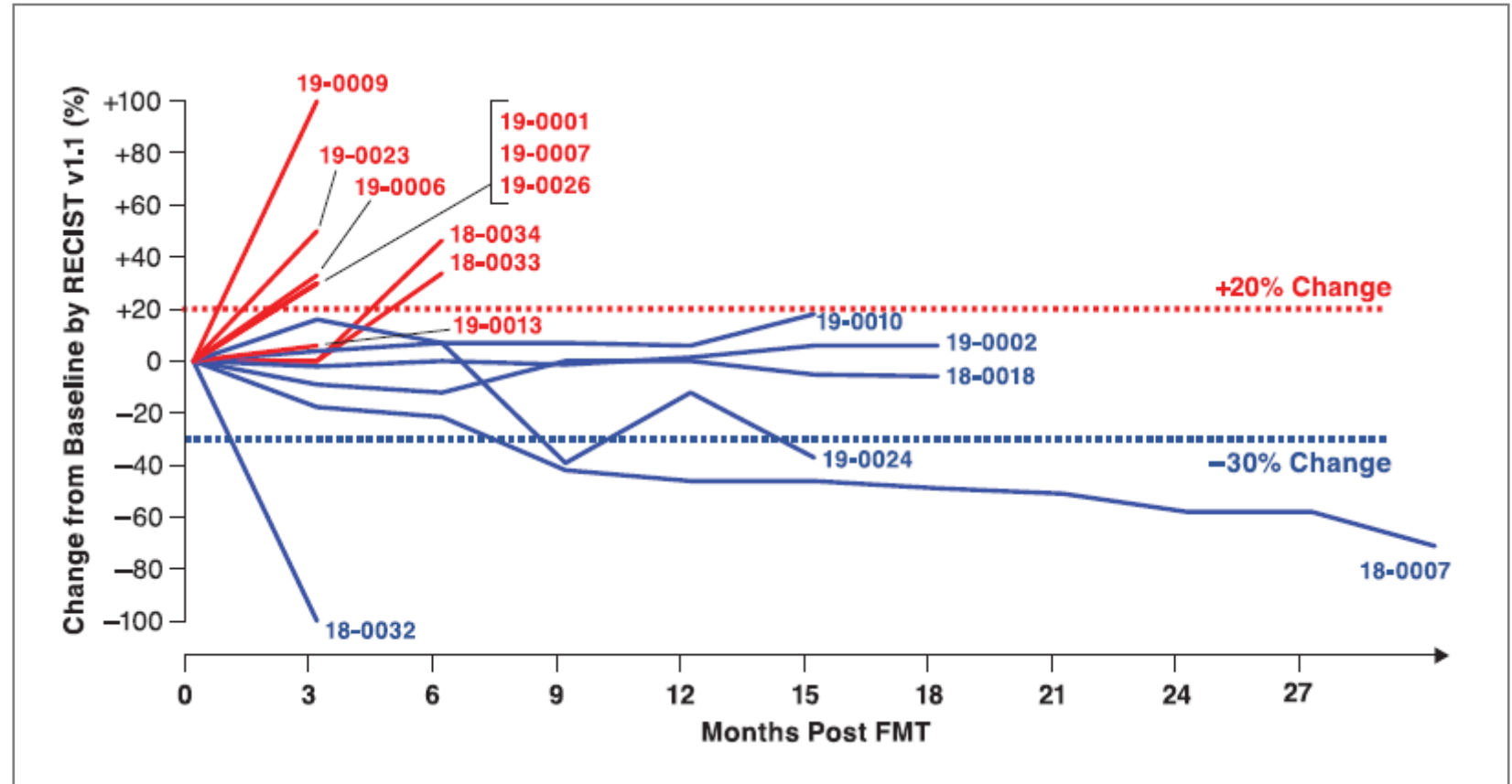
**cancer.gov**

**cancergrandchallenges.org**



# Fecal microbiota transplant in melanoma

**Fecal microbiota transplant promotes response in immunotherapy-refractory melanoma patients**



*Science* 05 Feb 2021: Vol. 371, Issue 6529, pp. 602-609

DOI: 10.1126/science.abb5920

# 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:

- 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.

Previously 55 to 80 and 30 pack years

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

# CAR T-cell manufacturing

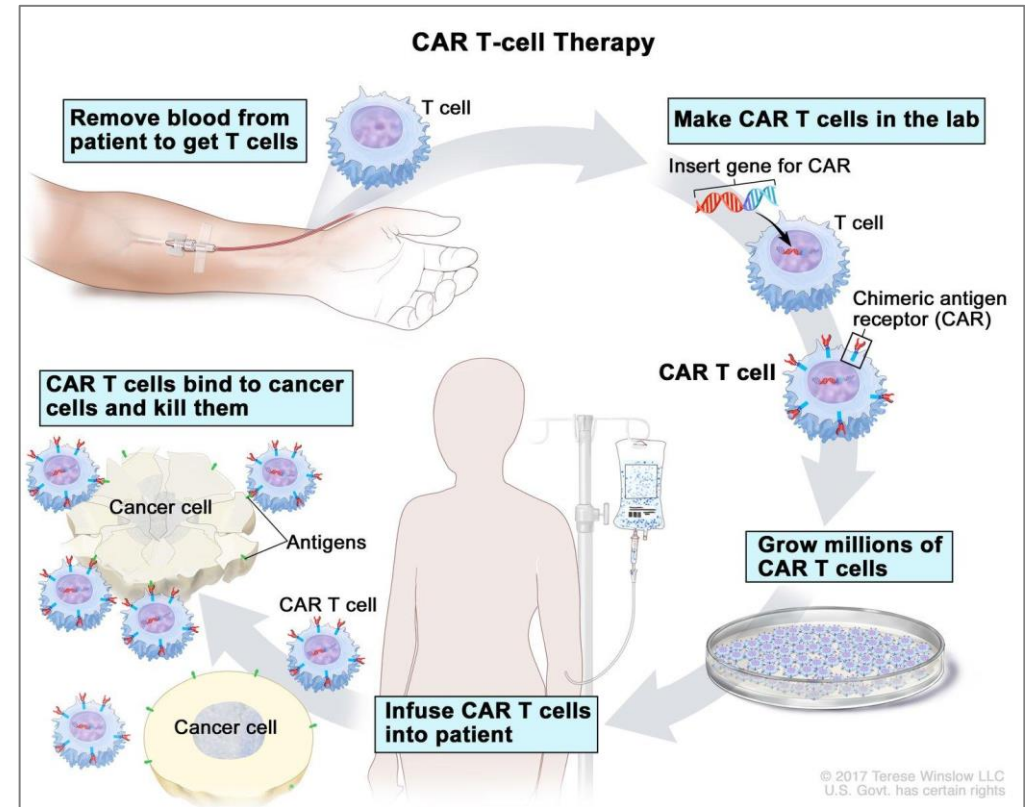
Manufacturing CAR T Cells to Expand Cancer Immunot...



**NIH NATIONAL CANCER INSTITUTE**

**Manufacturing CAR T Cells to Accelerate Cancer Immunotherapy Research**

To expand and speed up immunotherapy research, NCI has established a program to manufacture CAR T-cell therapies for use in clinical trials.



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

# Discussion