

# NCI Director's Report

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Norman E. Sharpless, M.D.

*6<sup>th</sup> Virtual Meeting of the Frederick National  
Laboratory Advisory Committee*

*February 23, 2021*

@NCIDirector  
@TheNCI

# Agenda

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- 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

# VIRTUAL VISIT TO THE NATIONAL CANCER INSTITUTE



## VIRTUAL VISIT TO THE NATIONAL CANCER INSTITUTE



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DR. NORMAN E. SHARPLESS  
DIRECTOR, NATIONAL CANCER INSTITUTE



DR. WORTA MCCASKILL-STEVENS  
DIRECTOR OF NCI'S COMMUNITY ONCOLOGY RESEARCH PROGRAM (NCORP)



DR. STEPHANIE GOFF  
STAFF CLINICIAN IN THE NCI'S CENTER FOR CANCER RESEARCH



DR. LIGA PINTO  
DIRECTOR OF THE VACCINE, IMMUNITY AND CANCER PROGRAM AT NCI'S FREDERICK NATIONAL LABORATORY FOR CANCER RESEARCH

# NCA-50 commemoration launched February 8



Cancer Act



# Cancer Moonshot



MOONSHOT PROGRESS 2017-2020

# 240

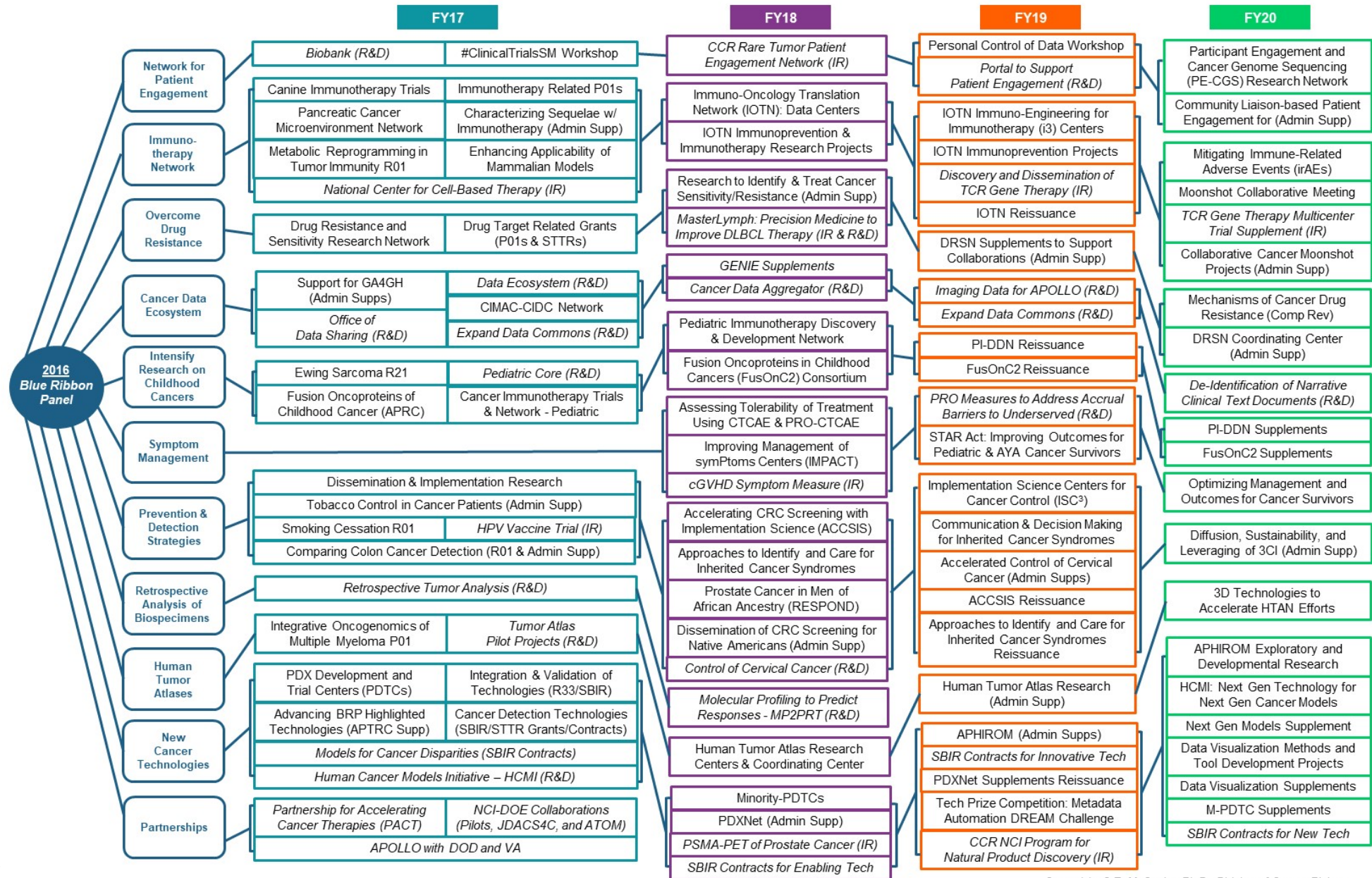
RESEARCH PROJECTS & INITIATIVES

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

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

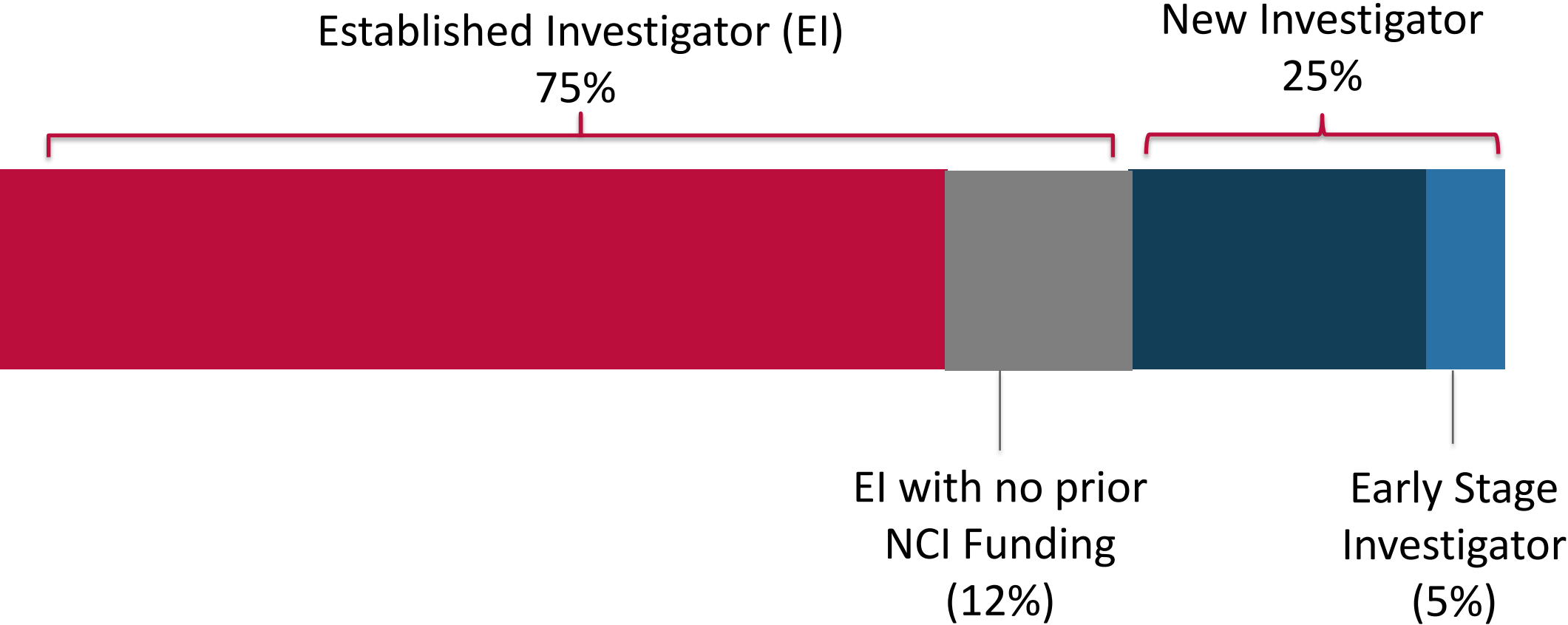
January 11, 2021, by Norman E. Sharpless, M.D., and Dinah Singer, Ph.D.

# Cancer Moonshot Initiatives (2017-2020)



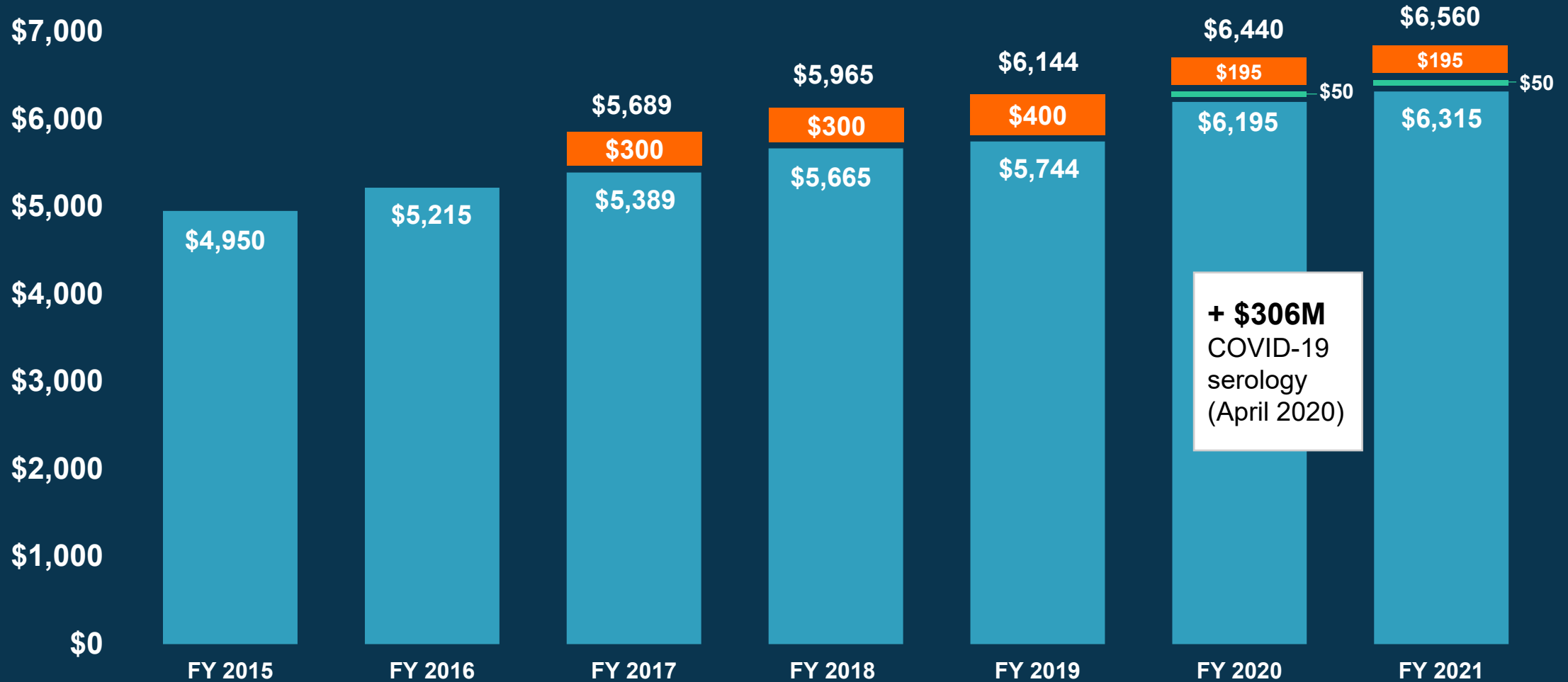
# 25% of Moonshot Extramural PIs are New Investigators

**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



**+ \$306M**  
COVID-19  
serology  
(April 2020)



# 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

**929**

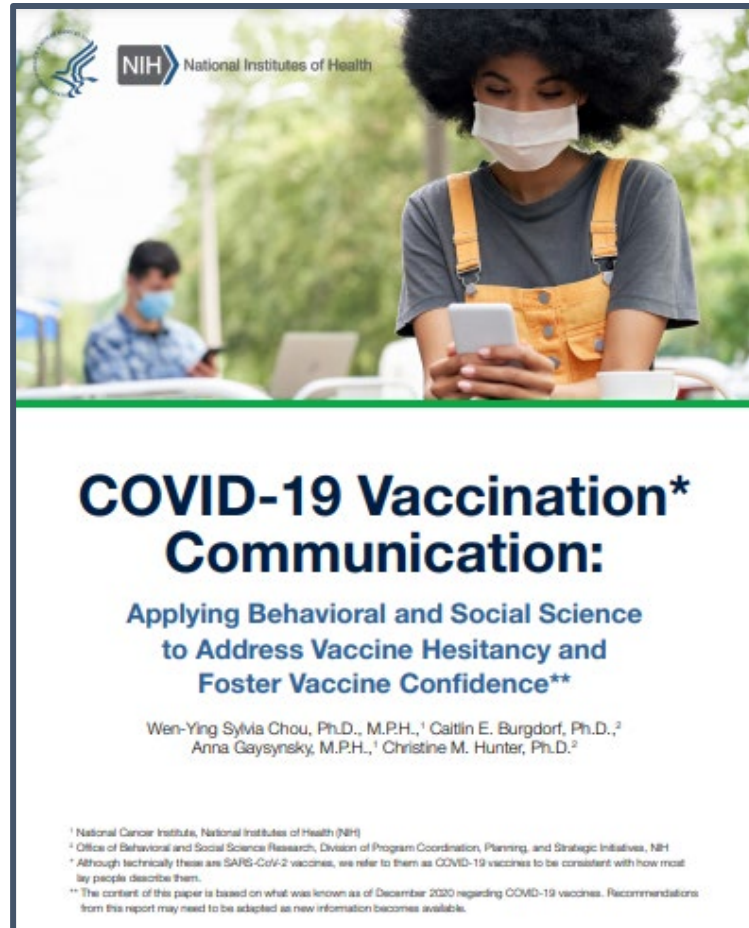
PATIENTS  
ENROLLED

Now open to pediatric  
patients

Launched May 21  
Conception to Launch in  
6 weeks

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

# 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**

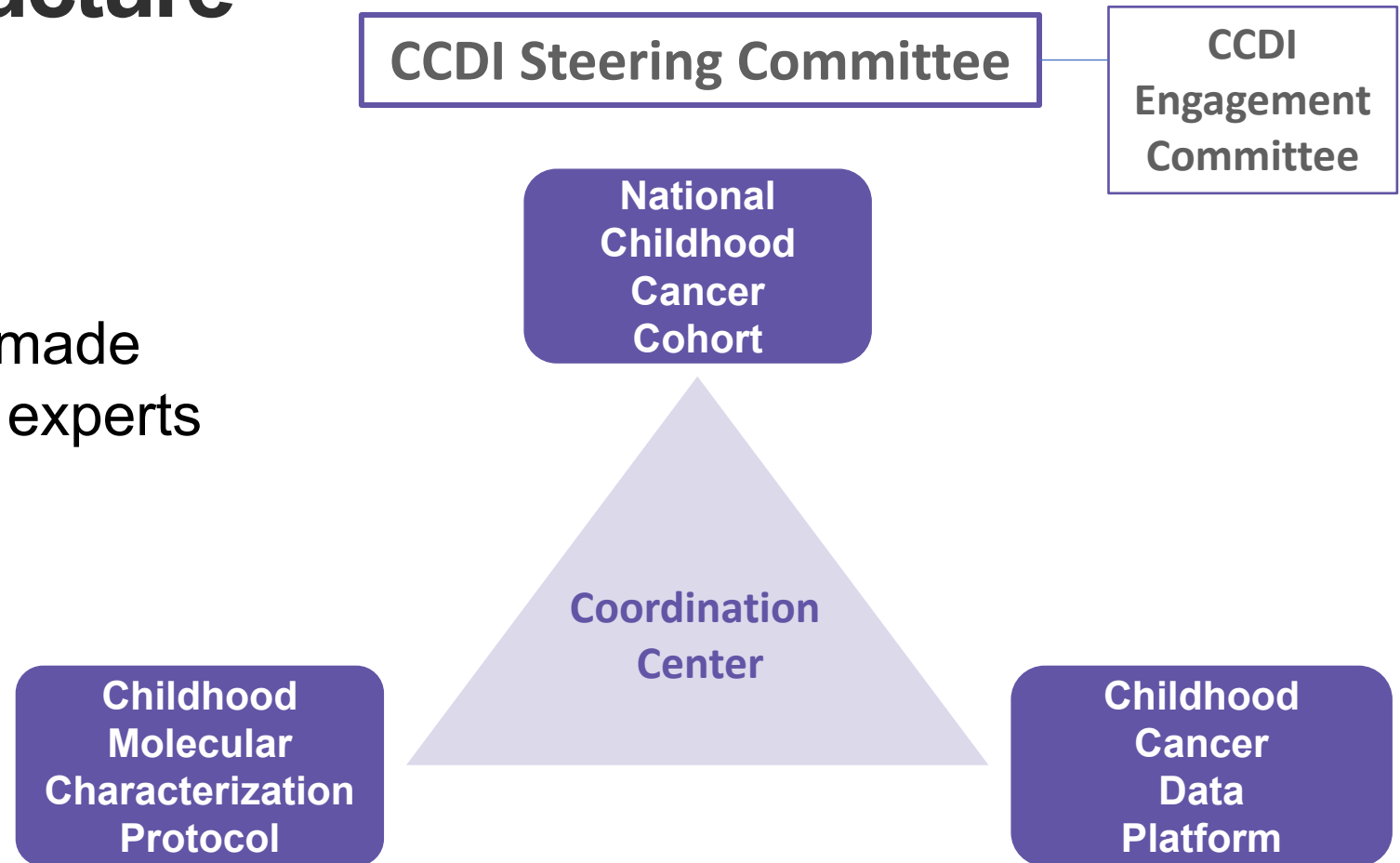
*Caitlin E. Burgdorf, Ph.D.*

*Christine M. Hunter, Ph.D.*

# Childhood Cancer Data Initiative Governance Structure

## 4 working groups

co-chaired by NCI and extramural experts and made up of NCI staff, external experts and advocates



# 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



**cancer.gov**

**cancergrandchallenges.org**

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**

# Request for Information (RFI)

New National Programs at the NCI's Frederick National Laboratory for Cancer Research

NOT-CA-21-001

Open until February 19

RFI\_NationalPrograms@nih.gov

Closed

*Seeking input from members of the cancer research community on the **most important needs and promising opportunities** in cancer research that are difficult to address on an individual scale or by a research network.*

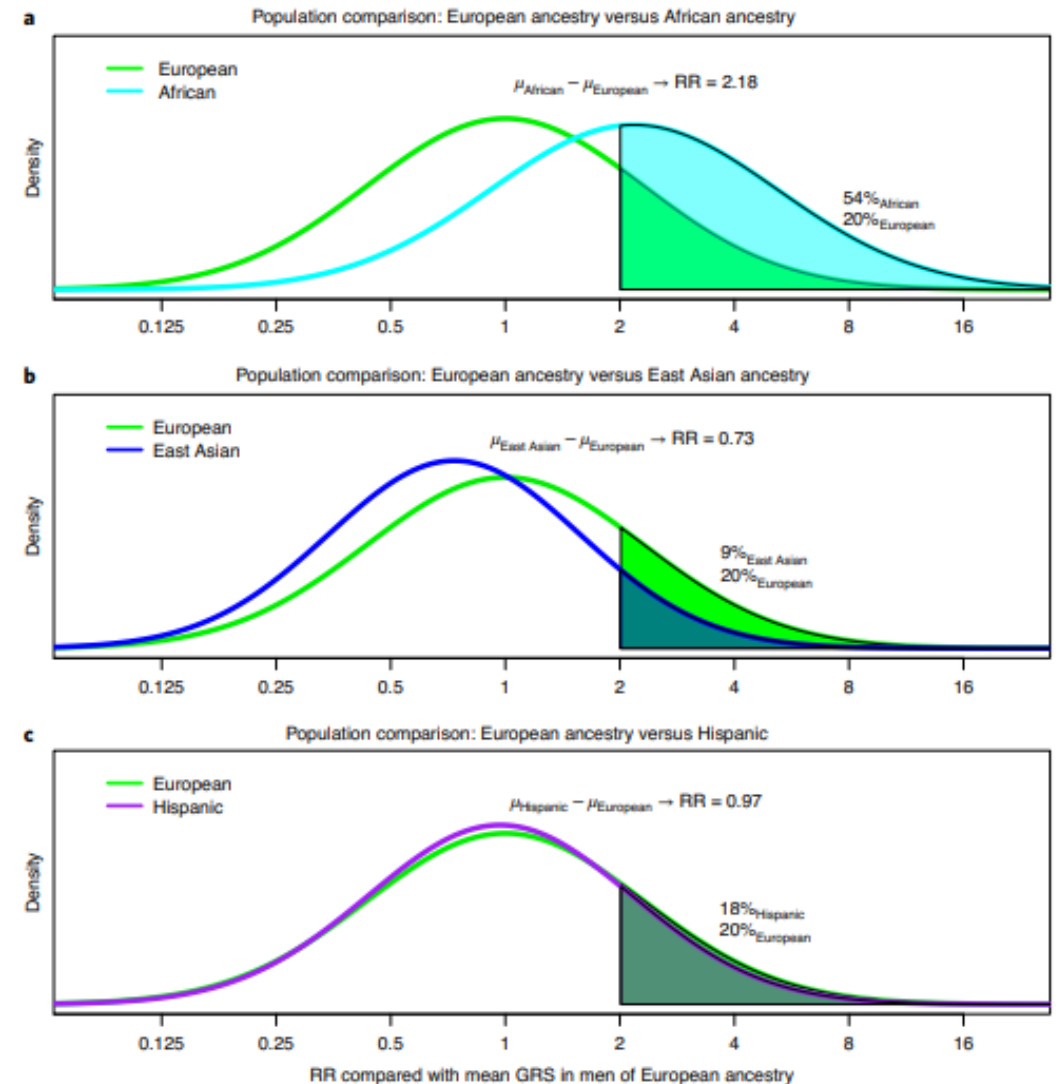


# Prostate cancer GWAS



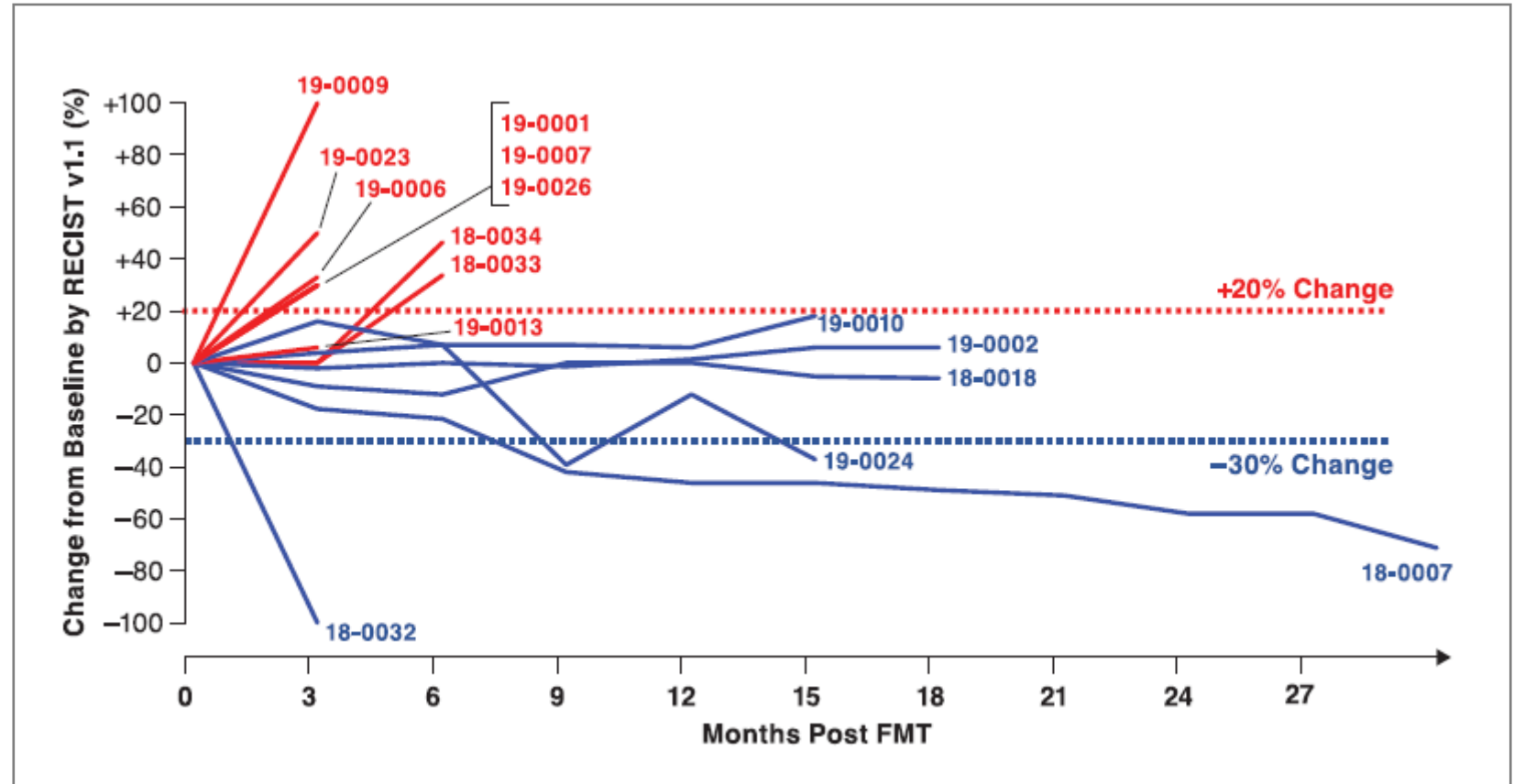
Article | Published: 04 January 2021

## Trans-ancestry genome-wide association meta-analysis of prostate cancer identifies new susceptibility loci and informs genetic risk prediction



# 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

# CAR T-cell manufacturing

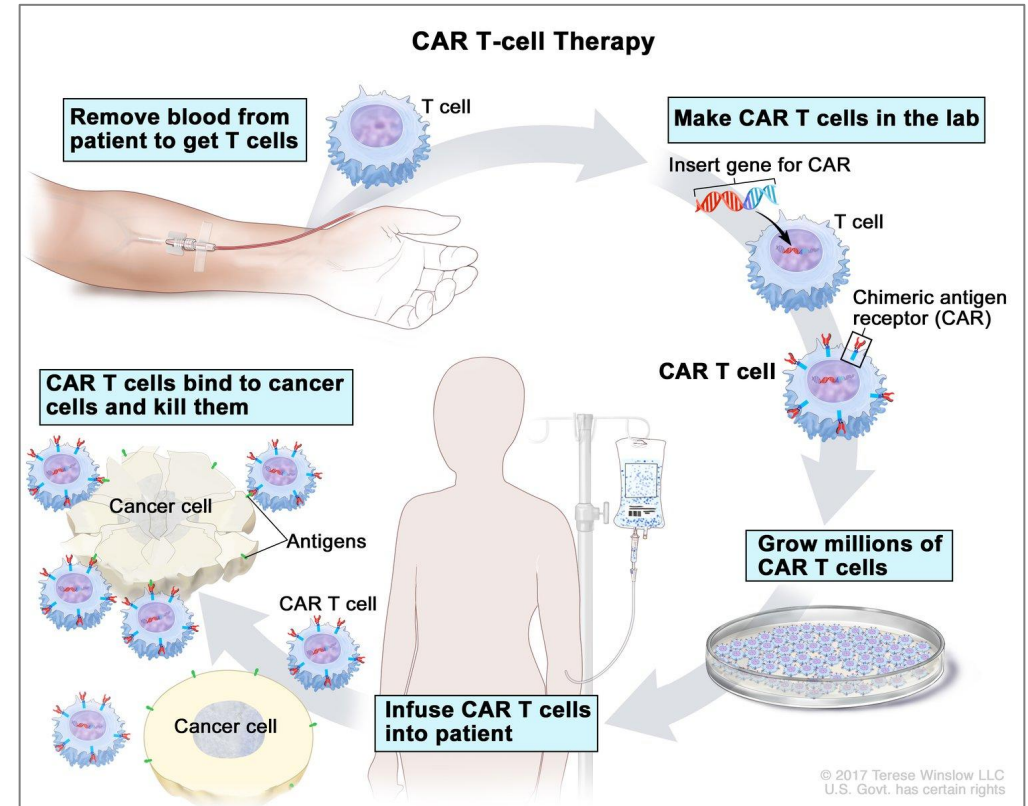
Manufacturing CAR T Cells to Expand Cancer Immunot...



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