

# NCI Director's Report

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Norman E. Sharpless, M.D.

June 14, 2018



October 17, 2017

# National Cancer Act of 1971

- Provided broad authority for the National Cancer Program
- Granted the NCI Director “bypass budget” authority
- Mandated the presidentially appointed National Cancer Advisory Board and the President’s Cancer Panel



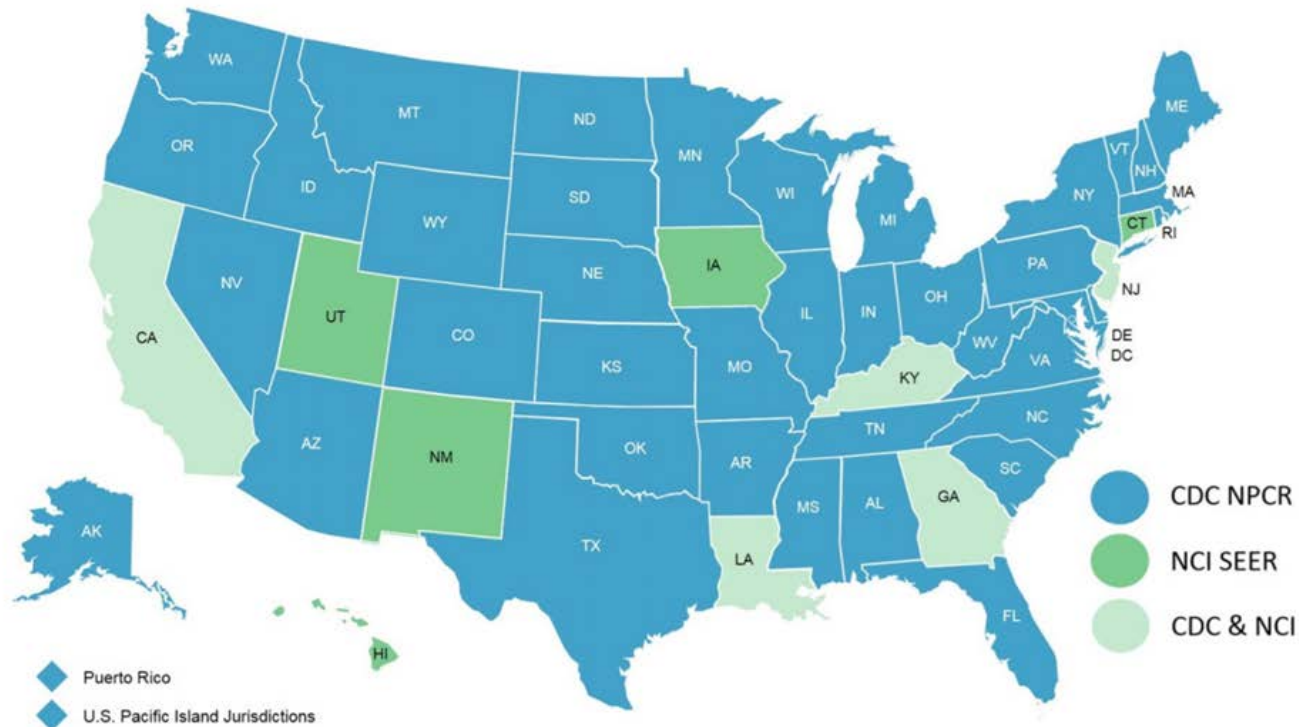




# Frederick National Laboratory for Cancer Research

# The SEER Program

## Surveillance, Epidemiology and End Results



- Funded by NCI to support research on the diagnosis, treatment and outcomes of cancer since 1973
- 16 population-based registries covering 28% of the US population
  - Registries collect information on all cancer cases for residents of the state or region
  - Representing racial and ethnic minorities
  - Various geographic subgroups
- 450,000+ incident cases annually

# President's Cancer Panel Report

## March 2018

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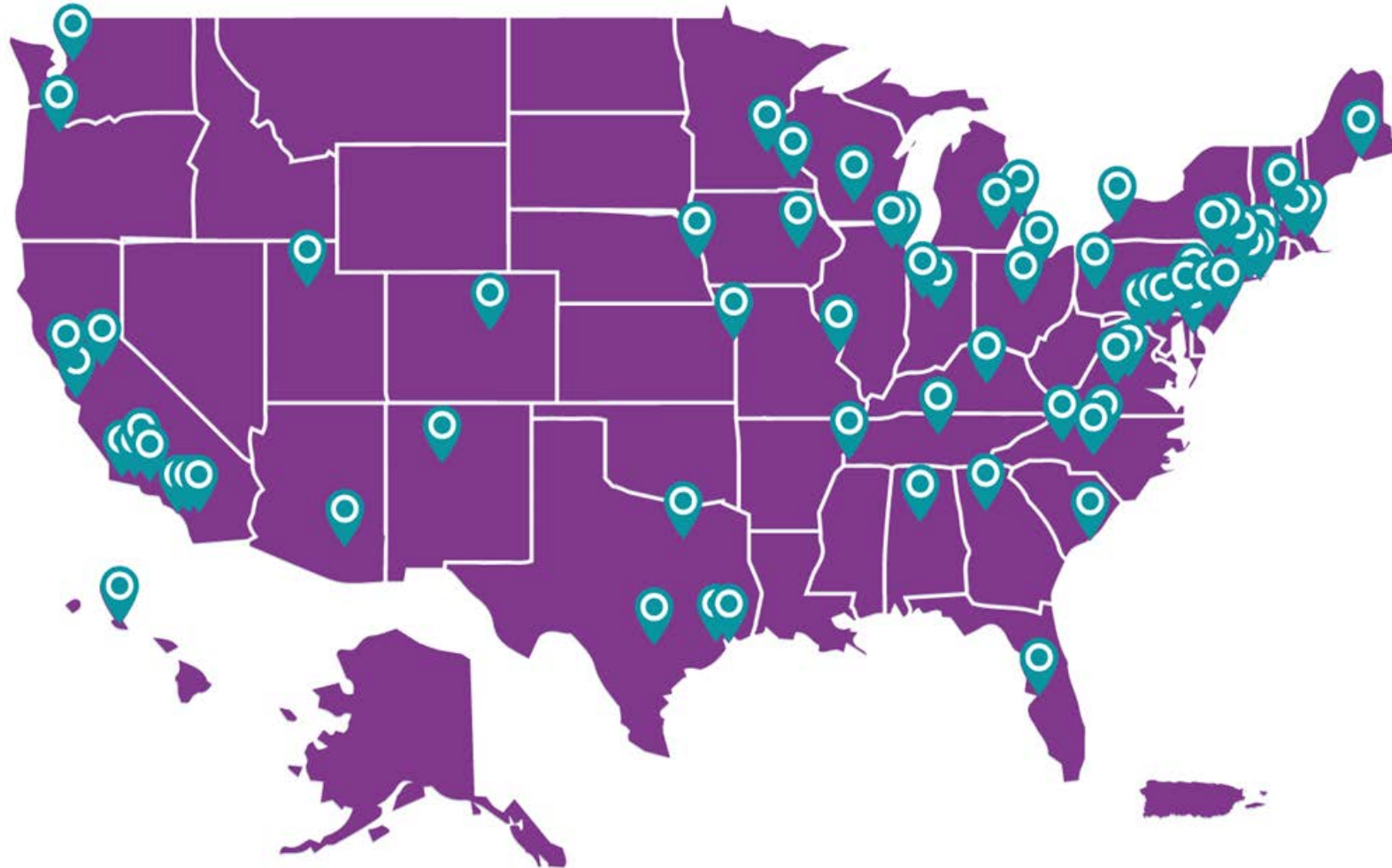
### **Promoting Value, Affordability, and Innovation in Cancer Drug Treatment**



A Report to the President of the United States  
from the President's Cancer Panel



# 70 NCI Designated Cancer Centers

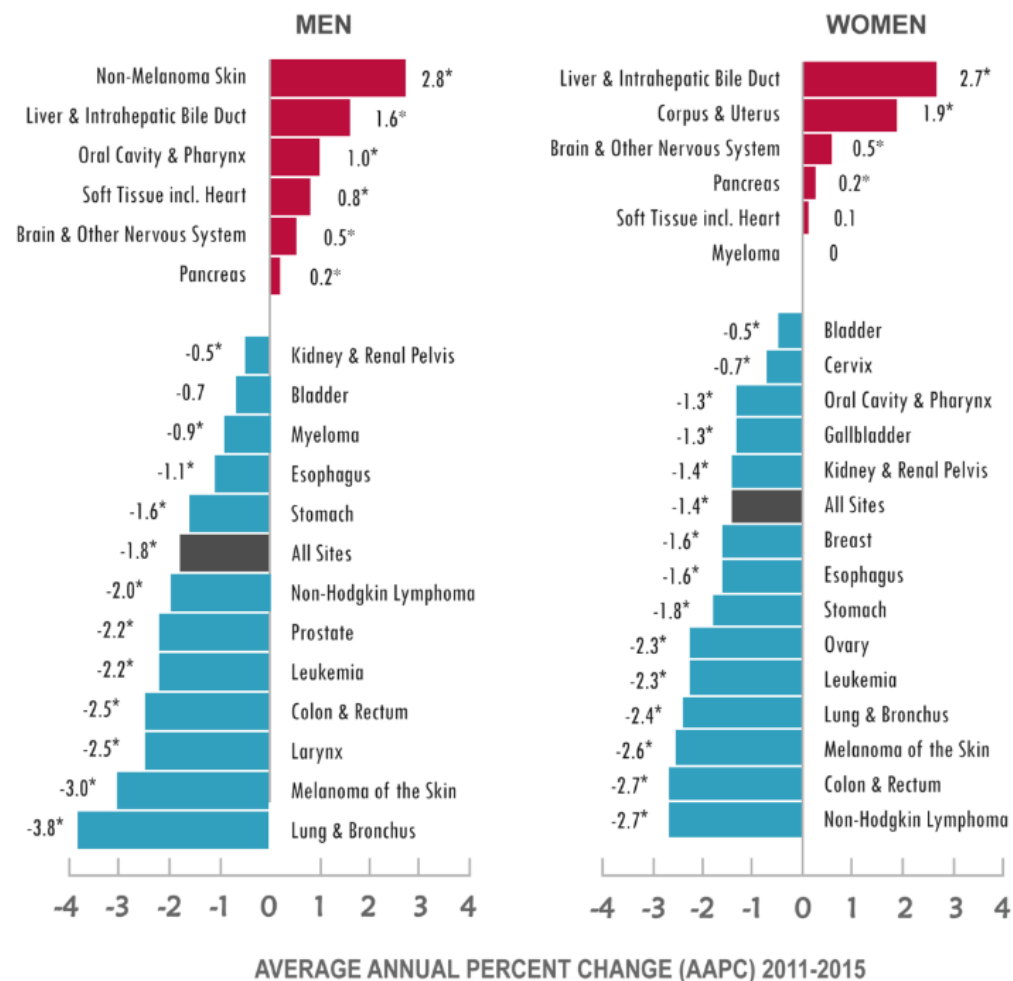


# ANNUAL REPORT TO THE NATION ON THE STATUS OF CANCER

1999 — 2015  
**CANCER  
DEATH RATES  
DECLINED**

FOR MEN, WOMEN, & CHILDREN

## NATIONAL TRENDS IN CANCER DEATH RATES





**The New York Times**

## ***Good News for Women With Breast Cancer: Many Don't Need Chemo***

Many women with early-stage forms of the disease can forego chemo, based on a test that measures the activity of genes involved in breast cancer recurrence.

By DENISE GRADY JUNE 3, 2018

**Vox**

## **Thousands of women will avoid chemo thanks to a study funded by the breast cancer stamp**

Many breast cancer patients don't need chemo, a precision medicine study just found.

By Julia Belluz | @juliaoftoronto | julia.belluz@voxmedia.com | Jun 5, 2018, 12:00pm EDT

**Newsweek**

**HEALTH**

## **WHAT IS IMMUNOTHERAPY?: WOMAN WITH TERMINAL BREAST CANCER SAVED BY PIONEERING TREATMENT**

BY KASHMIRA GANDER ON 6/5/18 AT 7:03 AM

When it's appropriate to use the C-word: A conversation with the director of the National Cancer Institute

Meg Tirrell | @megtirrell

Published 10:26 AM ET Mon, 4 June 2018 | Updated 12:21 PM ET Mon, 4 June 2018

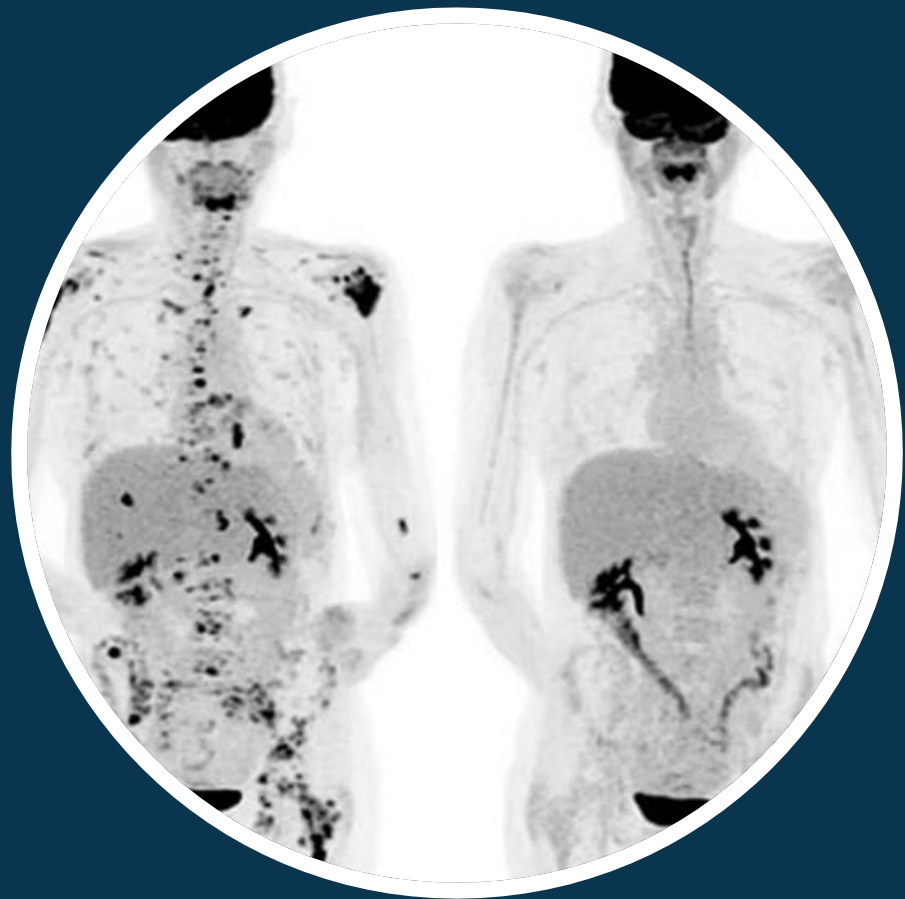
 **CNBC**

**The Washington Post**  
*Democracy Dies in Darkness*

## **Researchers use immune-cell 'army' to battle another tough cancer**

By Laurie McGinley June 4  Email the author

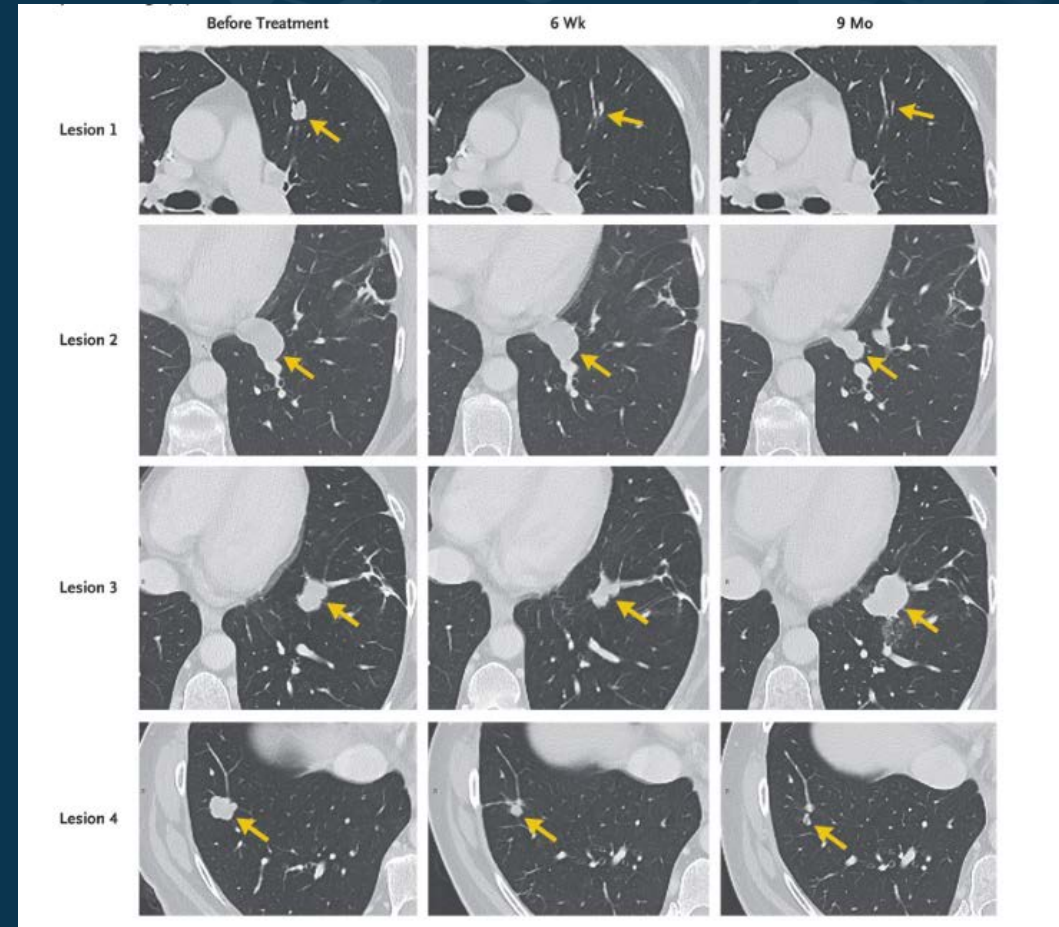




# Cancer Immunotherapy

*PET scans of a patient with multiple myeloma treated with BCMA-targeted CAR T cells. Courtesy of J. Kochenderfer, NCI.*

# Targeting the KRAS<sup>G12D</sup> Neoantigen to Treat Cancer





# Cancer Moonshot

Sept. 2016

Blue Ribbon Panel  
Recommendations

Dec. 2016



21<sup>st</sup> Century Cures Act  
Authorized Funding for  
Cancer Moonshot

Apr.-Jun. 2017

NCI Teams, Leaders & BSA Develop  
& Review Scientific Proposals Aligned  
with BRP Recommendations



Fall 2017



\$300M Awarded  
FY2018 FOAs Released

# Cancer Moonshot FOAs

The screenshot shows the NIH National Cancer Institute website. The header includes the NIH logo and the text "NATIONAL CANCER INSTITUTE". Below the header is a navigation bar with links: ABOUT CANCER, CANCER TYPES, RESEARCH, GRANTS & TRAINING, NEWS & EVENTS, ABOUT NCI, and a search bar. The "RESEARCH" link is highlighted. Below the navigation bar is a breadcrumb trail: Home > Research > Key Initiatives > Cancer Moonshot™. The main content area is titled "Cancer Moonshot™ – Funding Opportunities". It contains two paragraphs of text. The first paragraph states that funding opportunity announcements (FOAs) listed below highlight research initiatives that align with the efforts of the Cancer Moonshot, and they may be supported with existing funds or with the 21st Century Cures funding. The second paragraph states that planning for implementation of longer-term scientific initiatives is also underway, and they will continue to update this page as new funding opportunities become available, so users should check back often or sign up to receive automatic email updates on Cancer Moonshot-related activities. To the right of the text is a graphic that says "FUNDING OPPORTUNITIES" and "BLUE RIBBON PANEL RECOMMENDATIONS". Below the text is a light blue box with a link: "More information about the recently announced funding opportunities is available on the Cancer Moonshot Funding Resources page." At the bottom of the page, there is a note: "Please note that all publications and data resulting from Cancer Moonshot funded initiatives will be required to be immediately accessible. For more information, see the Cancer Moonshot Public Access and Data Sharing Policy."

NIH NATIONAL CANCER INSTITUTE

1-800-4-CANCER Live Chat Publications Dictionary

ABOUT CANCER CANCER TYPES RESEARCH GRANTS & TRAINING NEWS & EVENTS ABOUT NCI search

Home > Research > Key Initiatives > Cancer Moonshot™

**CANCER MOONSHOT™**

Blue Ribbon Panel +

Implementation

**Funding Opportunities**

Public Access Policy

Resources for FOAs

## Cancer Moonshot™ – Funding Opportunities

The funding opportunity announcements (FOAs) listed below highlight research initiatives that align with the efforts of the Cancer Moonshot. They may be supported with existing funds or with the 21st Century Cures funding.

Planning for implementation of longer-term scientific initiatives is also underway. We will continue to update this page as new funding opportunities become available so check back often or [sign up](#) to receive automatic email updates on Cancer Moonshot-related activities.

More information about the recently announced funding opportunities is available on the [Cancer Moonshot Funding Resources page](#).

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- Close to 50 Funding Opportunity Announcements to date and more to come
- 6 intramural initiatives
- Requirements related to data sharing and health disparities/ underserved populations

# Partnership for Accelerating Cancer Therapies (PACT)

National Cancer Institute - Division of Cancer Treatment & Diagnosis

Cancer Immune  
Monitoring Analysis  
Centers (CIMACs)

Dana-Farber

Stanford

Mount Sinai

MD Anderson

AbbVie

Amgen

Boehringer  
Ingelheim

BMS

Celgene

Genentech

Gilead

GSK

Cancer  
Immunologic Data  
Commons (CIDC)

Dana-Farber  
Cancer  
Institute

Janssen

Novartis

Pfizer

Sanofi



# Key Focus Areas

## **BASIC SCIENCE**

Reaffirm our commitment to basic science to drive novel approaches and technologies

## **WORKFORCE DEVELOPMENT**

Support the cancer research enterprise by focusing on the workforce of cancer investigators

## **BIG DATA**

Increase data aggregation and interpretation to speed our work across the cancer enterprise

## **CLINICAL TRIALS**

Fully realize the power of clinical trials through innovative design, administration, and analyses

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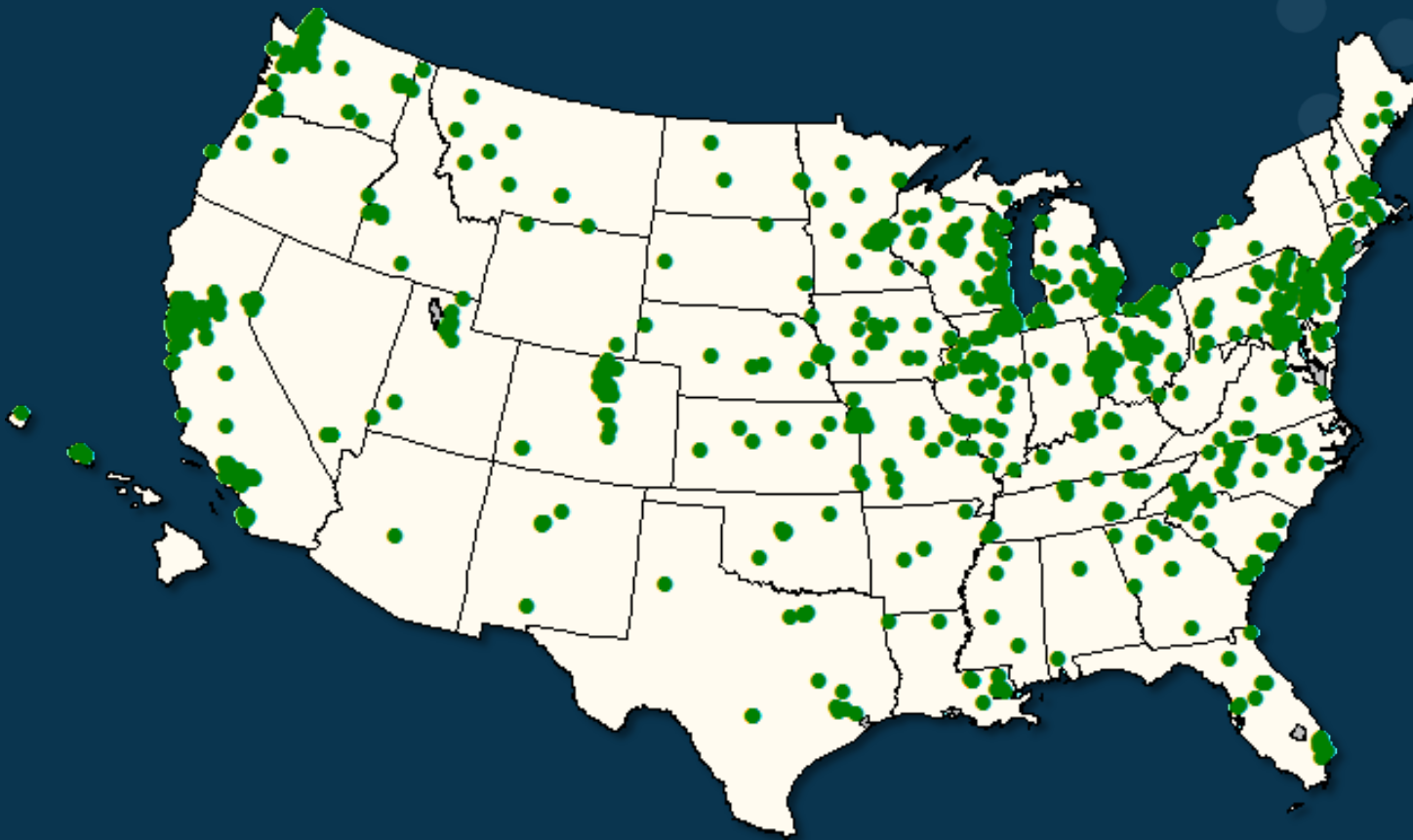
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# NCI Molecular Analysis for Therapy Choice (NCI-MATCH)



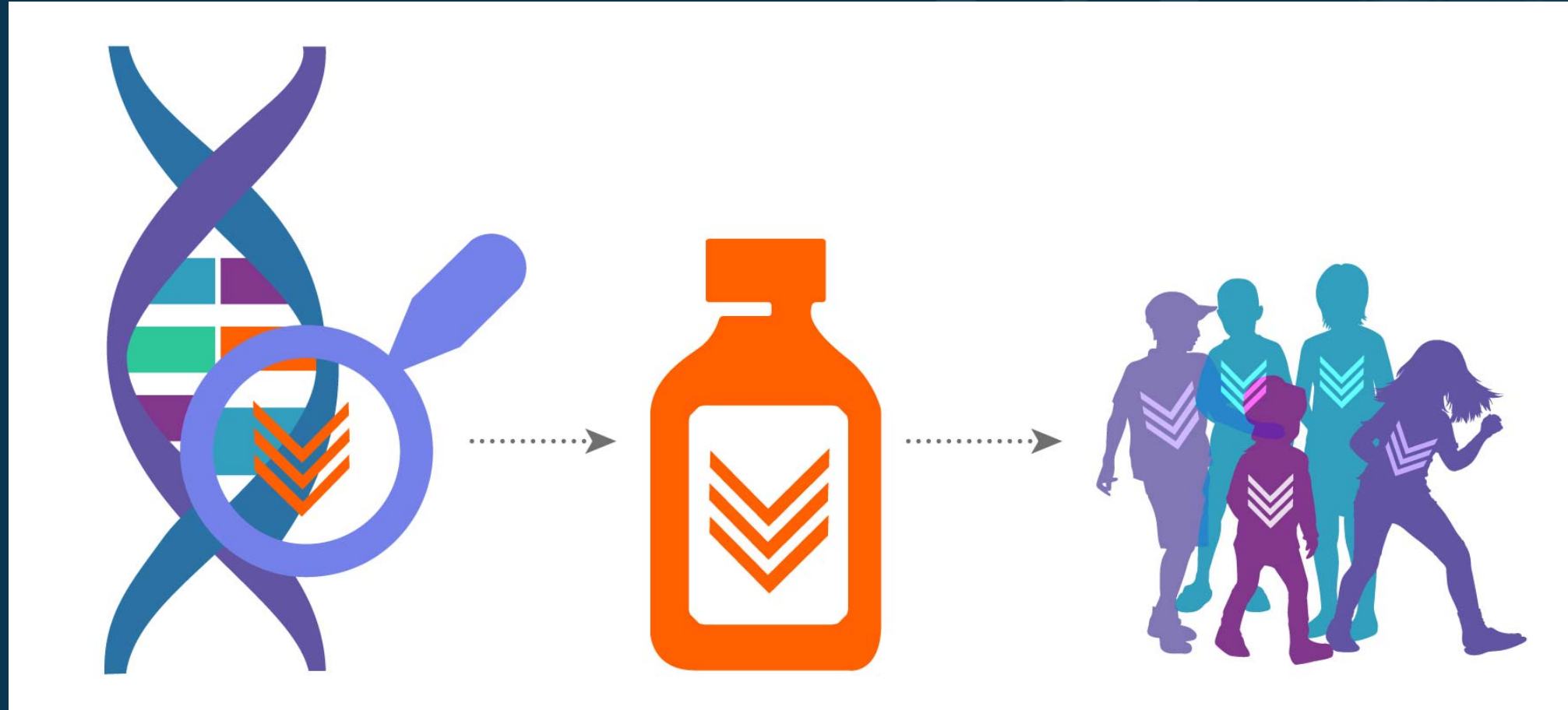
- Precision oncology trial to explore treating patients based on the molecular profiles of their tumors
- **1,118** sites in U.S. across NCTN and NCORP

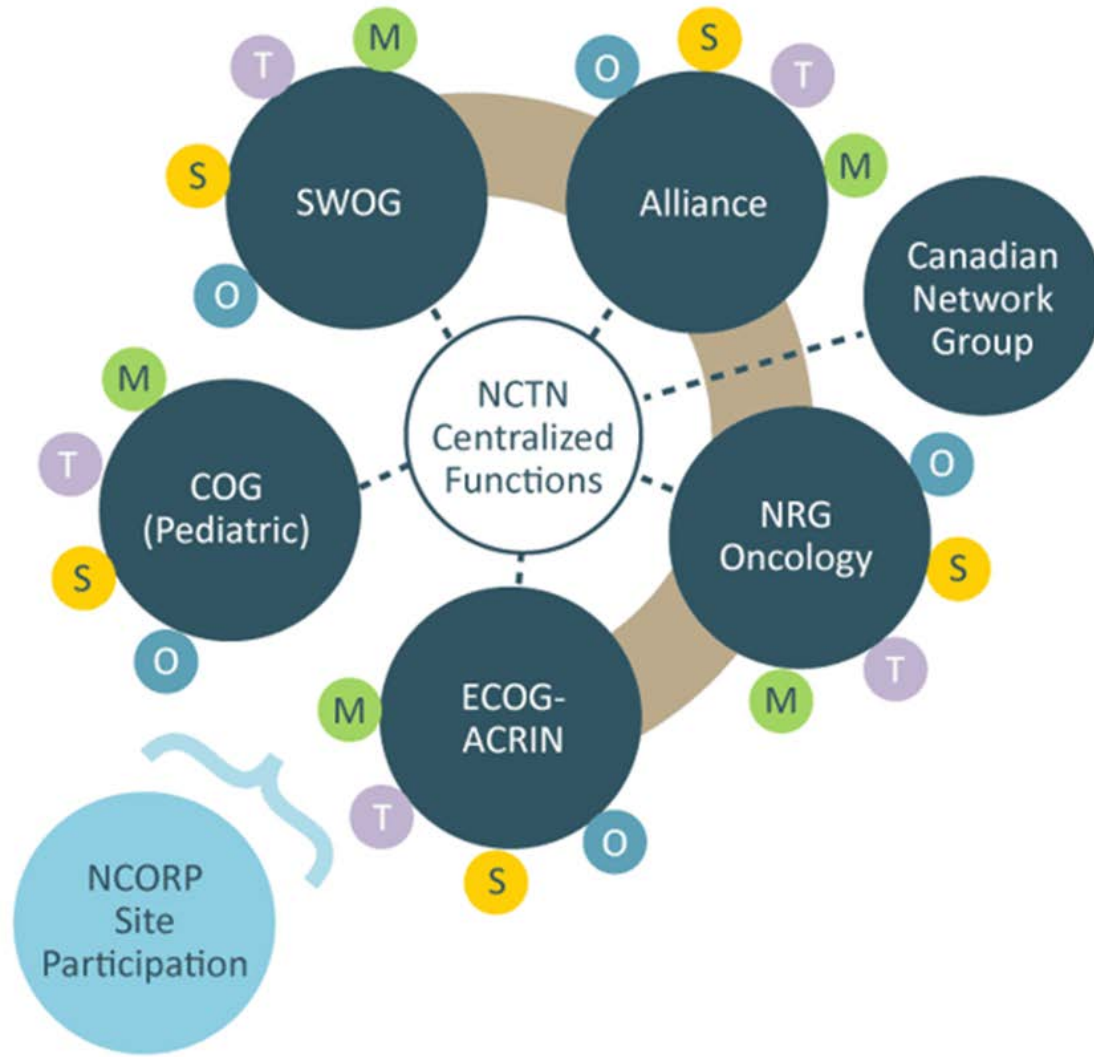


# NCI Molecular Analysis for Therapy Choice (NCI-MATCH)

Time period	# enrolled	# first samples submitted	# first sample fail	# assay complete	# assigned to Rx	# enrolled on Rx
Total Pre Pause	794	739	116	645	54	27
Total Post Pause	5,603	5,223	425	4,912	937	660
Overall Total Screening Cohort	<b>6,396</b>	5,962	544	5,560	992	<b>689</b>
Total Outside Assay	<b>74</b>	36	2	68	59	<b>45</b>

# NCI-COG Pediatric MATCH





# NCI National Clinical Trials Network (NCTN)



# All of Us RESEARCH PROGRAM

The  
Future of  
Health Begins  
With You



**We're calling on one million people to lead the way toward better health.**

## **What is precision medicine?**

Precision medicine is health care that is based on you as an individual. It takes into account factors like where you live, what you do, and your family health history. The goal is to be able to tell people the best ways to stay healthy. If someone does get sick, precision medicine may help health care teams find the treatment that will work best.

## **What is the All of Us Research Program?**

## **How long will *All of Us* last?**

*All of Us* may last for at least 10 years. We hope you will stay involved over time. If you join, you can withdraw ("quit") at any time for any reason without penalty.

## **Why should I join *All of Us*?**

You will be contributing to research that may improve health for everyone. Here are some examples of what

# Selected Collaborations with Other ICs

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- New-Onset Diabetes and Pancreatic Cancer Cohort Study – with NIDDK
- Head and Neck Cancer Specialized Programs of Research Excellence (SPOREs) – with NIDCR
- Pediatric HIV/AIDS Cohort Study (PHACS) – with NICHD
- Improving Outcomes in Cancer Treatment-Related Cardiotoxicity – with NHLBI
- Center for Advanced Tissue Imaging (CAT-I) – with NIAID
- Immuno-Oncology Translation Network (IOTN):
  - Immunoprevention Research Projects - with NIEHS, NINDS, and NIDCR
  - Immunotherapy Research Projects - with NIEHS, NINDS, NIDCR, and NIAAA
- Gabriella Miller Kids First (Common Fund)
- NCI-NIMHD Collaborative Working Group on Chronic Liver Diseases and Liver Cancer



**NATIONAL  
CANCER  
INSTITUTE**

**[www.cancer.gov](http://www.cancer.gov)**

**[www.cancer.gov/espanol](http://www.cancer.gov/espanol)**