NCI Director's Report

Norman E. Sharpless, M.D.

June 26, 2018

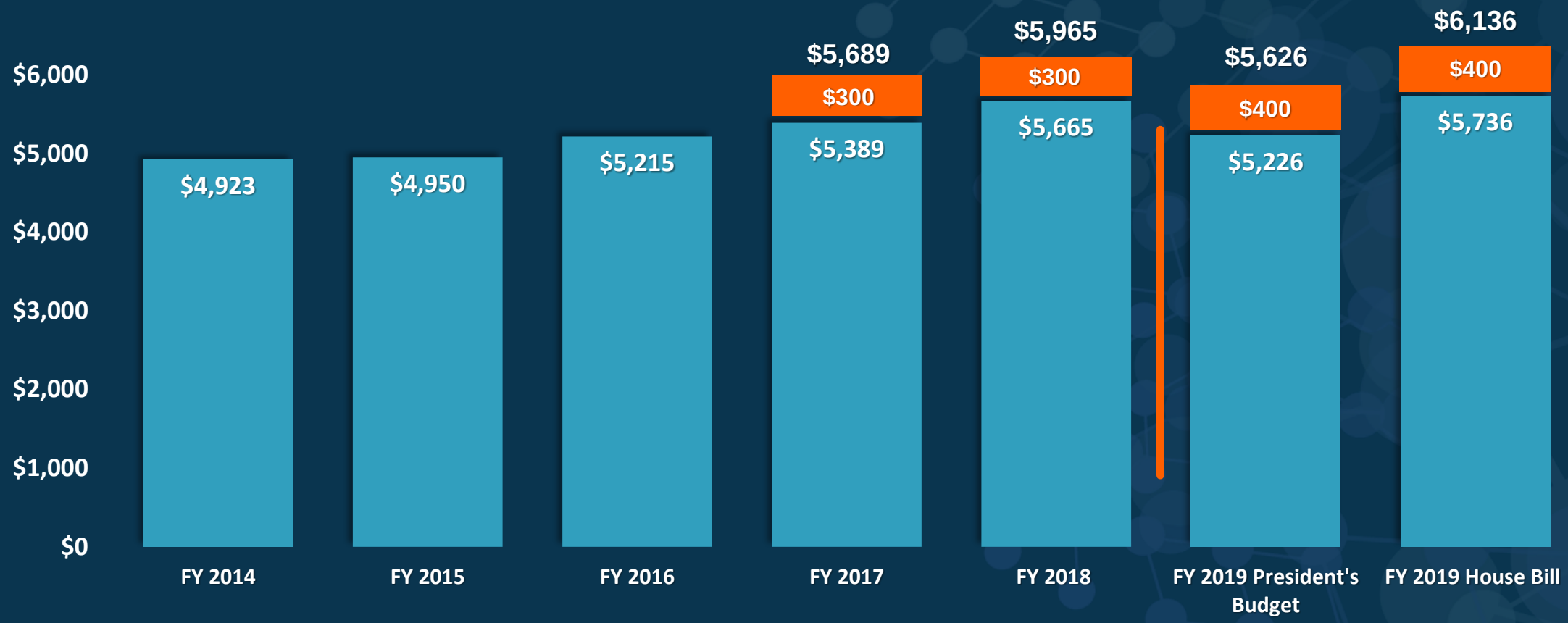
NIH NATIONAL CANCER INSTITUTE

Updates

Budget, Congressional interactions, Annual Report to the Nation, Leadership

NIH NATIONAL CANCER INSTITUTE

NCI Appropriations FY 2014-2019
(in millions)



Source: NCI Office of Budget and Finance

FY 2018 NCI Budget Overview
(dollars in thousands)

Appropriation Increase over FY 2017[1]	
FY 2017 Enacted	$5,389,329
FY 2018 Enacted	$5,664,800
Appropriation Increase	**$275,471**

Estimated Increase, as of 6/22/2018	
Taps, Assessments, Transfers, Salaries & Benefits	$37,900
Small Business Set Aside	$10,000
Additional Investments in the RPG Pool	$147,000
Centers and SPOREs	$20,000
Targeted Research Opportunities	$60,571
Total	**$275,471**

[1] Does not include $300M 21st Century Cures funding for Cancer Moonshot

FY 2018 NCI Budget Overview

Targeted Research Opportunities[1]
Genomic Profiling of Lung Cancer in Never Smokers in General & Special Populations
The Cancer Imaging Archive
Data Integration and Analysis for APOLLO
Glioblastoma Research Pilot Project
New Onset Diabetes (NOD) Cohort Biorepository
Cancer Research Education Grants to Promote Diversity (R25's)

[1] This table does not represent the entire population of Targeted Research Opportunities in FY 2018, but rather a select few

Senate Appropriations Labor-HHS Subcommittee Hearing on FY19 NIH Budget – May 17, 2018

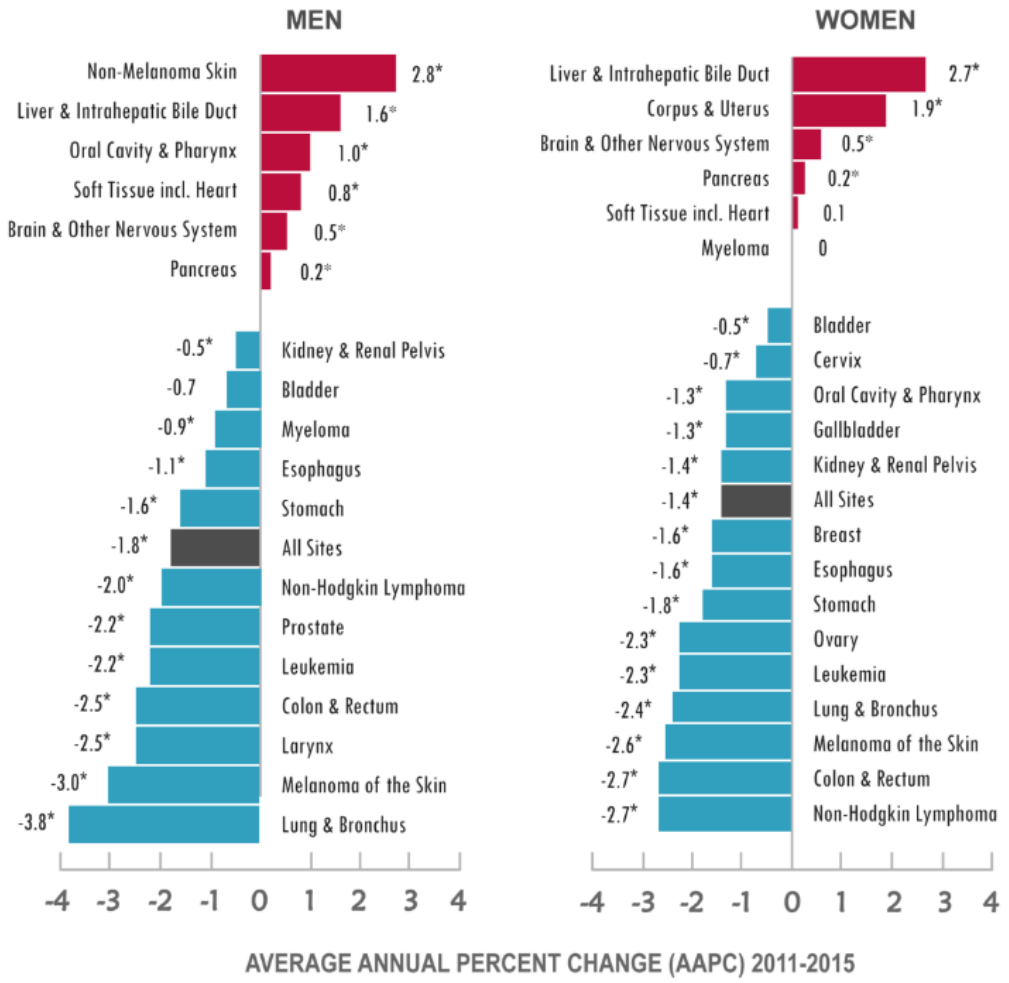
House Appropriations Labor-HHS Subcommittee Hearing on FY19 NIH Budget – April 11, 2018

Senator Jack Reed (D-RI) visit to NCI – May 1, 2018

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



Leadership Changes

Jeffrey S. Abrams, MD

Deborah K. Mayer, PhD, RN, AOCN, FAAN

Edward L. Trimble, MD, MPH

IGCS INTERNATIONAL GYNECOLOGIC CANCER SOCIETY

2018 Global Humanitarian Award Recipient

Edward L. Trimble, MD, MPH

For developing initiatives and collaborating with low- and middle-income countries to support cancer control planning, build capacity and support cancer research and training.

NCI Center for Global Health

Interim leadership

Robert T. Croyle, PhD

Thomas G. Gross, MD, PhD

Lisa Stevens, PhD

Douglas R. Lowy, MD

NCAB *Ad Hoc* Working Groups

Global Health

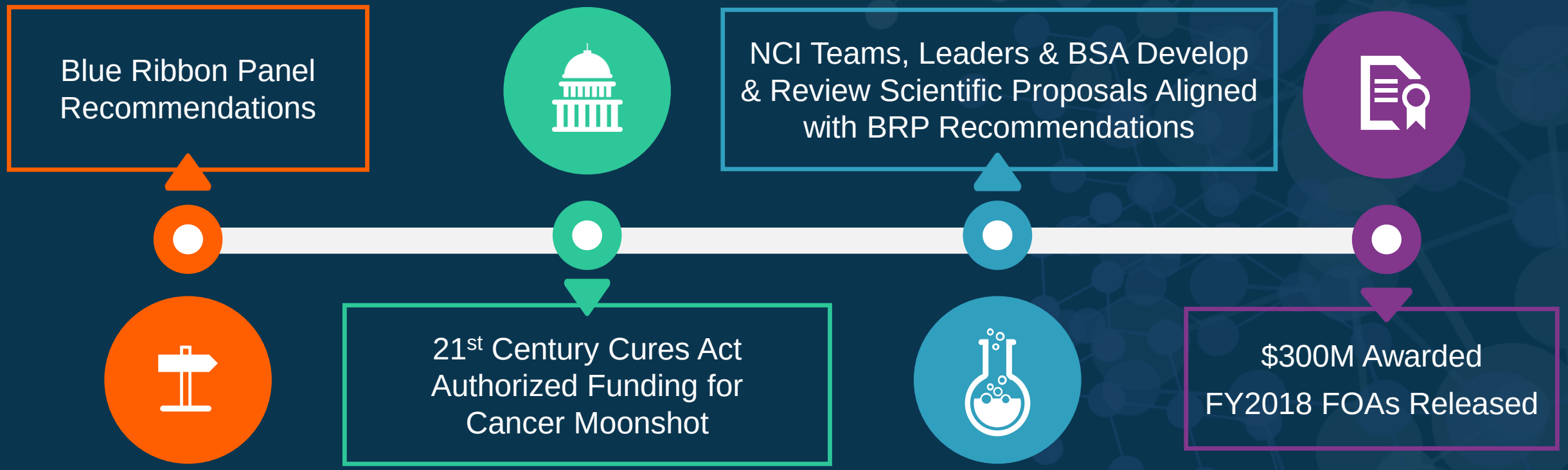
SBIR/ STTR

Data Science Working Group

Population Sciences, Epidemiology, and Disparities Working Group (new)

Cancer Moonshot

Sept. 2016	Dec. 2016	**Apr.-Jun. 2017**	Fall 2017



Notable NCI Research

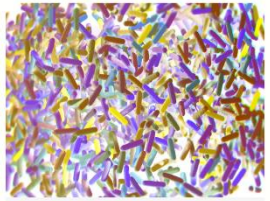
NCI Press Release

NCI study finds gut microbiome can control antitumor immune function in liver

Posted: May 24, 2018

Contact: NCI Press Office
240-760-6600

Scientists have found a connection between bacteria in the gut and antitumor immune responses in the liver. Their study, published online May 24 in *Science*, was led by researchers in the Center for Cancer Research (CCR) at the National Cancer Institute (NCI). It showed that bacteria found in the gut of mice affect the liver's antitumor immune function. The findings have implications for understanding the mechanisms that lead to liver cancer and for therapeutic approaches to treat them. NCI is part of the National Institutes of Health.



3D illustration of gut bacteria.
Credit: iStock

"What we found using different tumor models is

NCI study finds gut microbiome can control antitumor immune function in liver

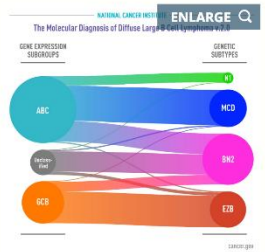
NCI Press Release

NCI study revises molecular classification for most common type of lymphoma

Posted: April 11, 2018

Contact: NCI Press Office
240-760-6600

In a new study, researchers identified genetic subtypes of diffuse large B-cell lymphoma (DLBCL) that could help explain why some patients with the disease respond to treatment and others don't. The study, led by researchers in the Center for Cancer Research (CCR) at the National Cancer Institute (NCI), part of the National Institutes of Health, with additional authors from several institutions around the world, was published online April 11, 2018, in *The New England Journal of Medicine*.



Subgroups of DLBCL by gene expression (left) defined several years ago. Genetic subtypes

"These findings are the culmination of two decades of research at NCI and elsewhere, advancing our understanding of the effect of

NCI study revises molecular classification for most common type of lymphoma

NCI Press Release

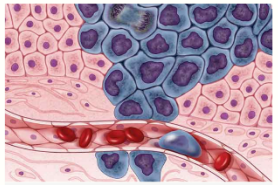
NIH completes in-depth genomic analysis of 33 cancer types

Posted: April 5, 2018

Contact: NCI Press Office
240-760-6600

Researchers funded by the National Institutes of Health have completed a detailed genomic analysis, known as the PanCancer Atlas, on a data set of molecular and clinical information from over 10,000 tumors representing 33 types of cancer.

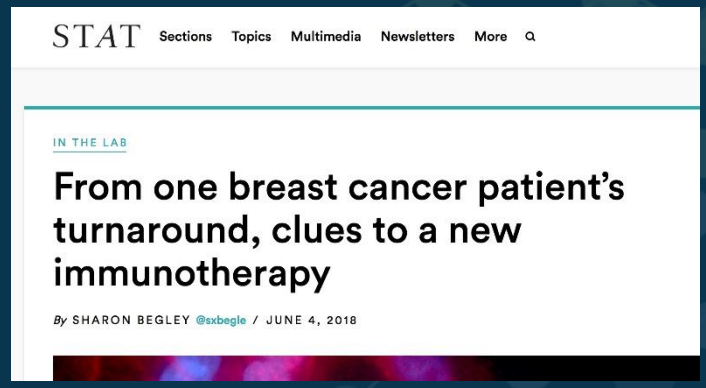
"This project is the culmination of more than a decade of groundbreaking work," said NIH Director Francis S. Collins, M.D., Ph.D. "This analysis provides cancer researchers with unprecedented understanding of how, where, and why tumors arise in humans, enabling better-informed clinical trials and future



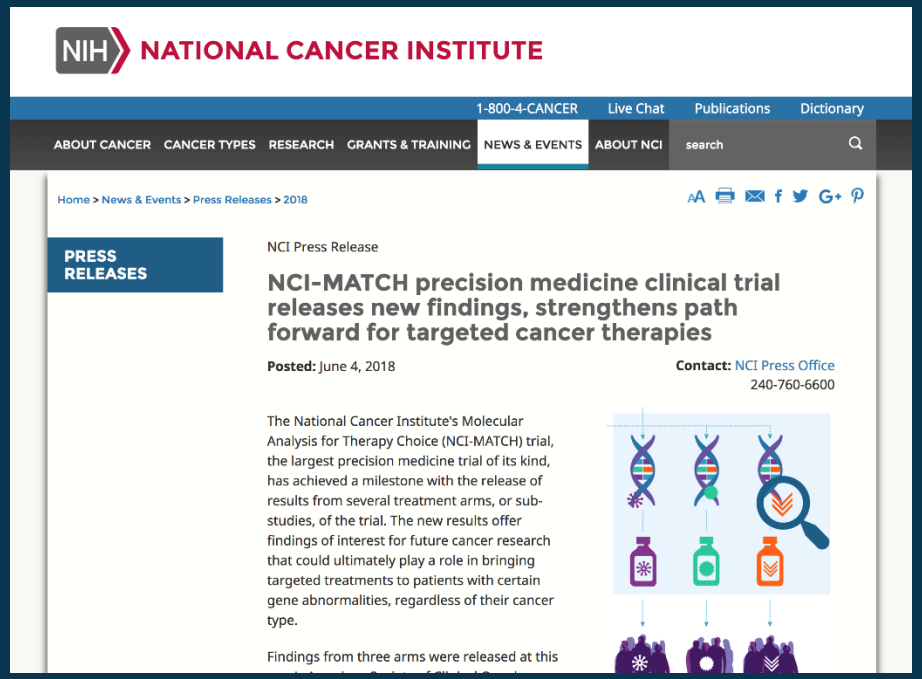
Growing cancer cells (in purple) are surrounded by healthy cells (in pink), illustrating a primary tumor spreading to other parts of the body through the circulatory system.

NIH completes in-depth genomic analysis of 33 cancer types

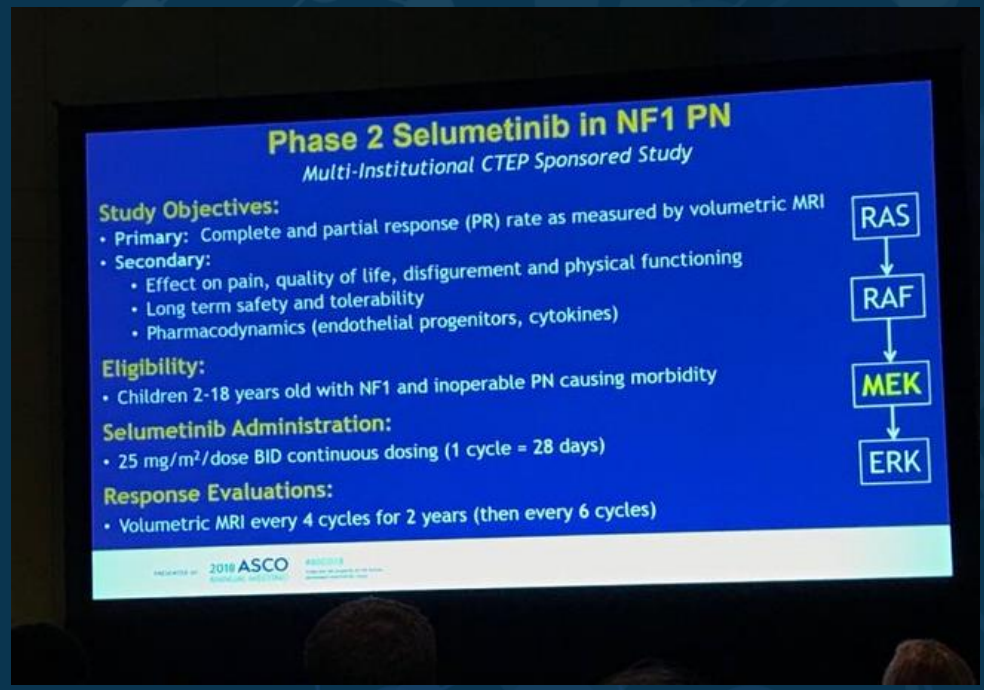
Immune recognition of somatic mutations leading to complete durable regression in metastatic breast cancer



NCI at ASCO



MATCH



NF1

Trial Assigning IndividuaLized Options for TReatment (TAILORx)

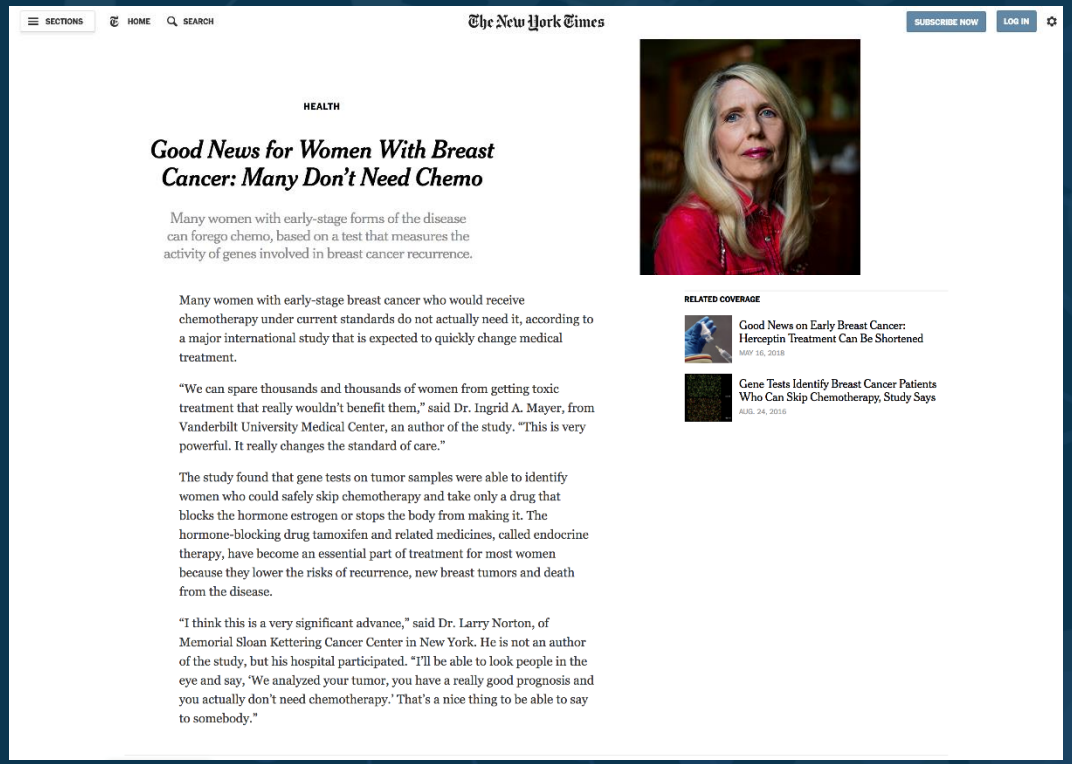
HEALTH

How a U.S. postal stamp helped fund a pivotal study on breast cancer

By ASSOCIATED PRESS / JUNE 4, 2018

"I think it's been well spent"

- **Dinah S. Singer, Ph.D.**



SECTIONS HOME SEARCH

The New York Times

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HEALTH

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.

Many women with early-stage breast cancer who would receive chemotherapy under current standards do not actually need it, according to a major international study that is expected to quickly change medical treatment.

"We can spare thousands and thousands of women from getting toxic treatment that really wouldn't benefit them," said Dr. Ingrid A. Mayer, from Vanderbilt University Medical Center, an author of the study. "This is very powerful. It really changes the standard of care."

The study found that gene tests on tumor samples were able to identify women who could safely skip chemotherapy and take only a drug that blocks the hormone estrogen or stops the body from making it. The hormone-blocking drug tamoxifen and related medicines, called endocrine therapy, have become an essential part of treatment for most women because they lower the risks of recurrence, new breast tumors and death from the disease.

"I think this is a very significant advance," said Dr. Larry Norton, of Memorial Sloan Kettering Cancer Center in New York. He is not an author of the study, but his hospital participated. "I'll be able to look people in the eye and say, 'We analyzed your tumor, you have a really good prognosis and you actually don't need chemotherapy.' That's a nice thing to be able to say to somebody."

RELATED COVERAGE

Good News on Early Breast Cancer: Herceptin Treatment Can Be Shortened

MAY 16, 2018

Gene Tests Identify Breast Cancer Patients Who Can Skip Chemotherapy, Study Says

AUG. 24, 2016

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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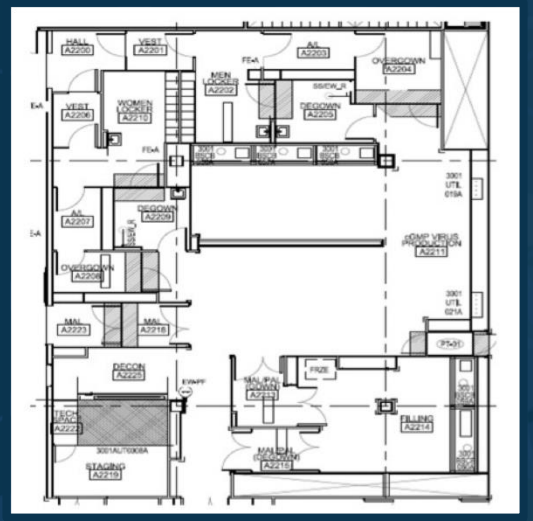
Basic Science: Frederick National Lab Updates

RAS

CryoEM



Frederick Cell Facility

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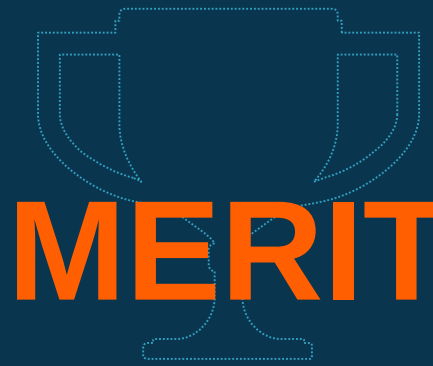
Workforce Training & Development

- Ensure diversity and representation
- Encourage training of the right skills (Ks and Rs)
- Set aside R01 funding for early-stage investigators (ESIs)
- Method to Extend Research in Time (MERIT) – R37

Early Stage Investigators



Method to Extend Research in Time

R37 Award

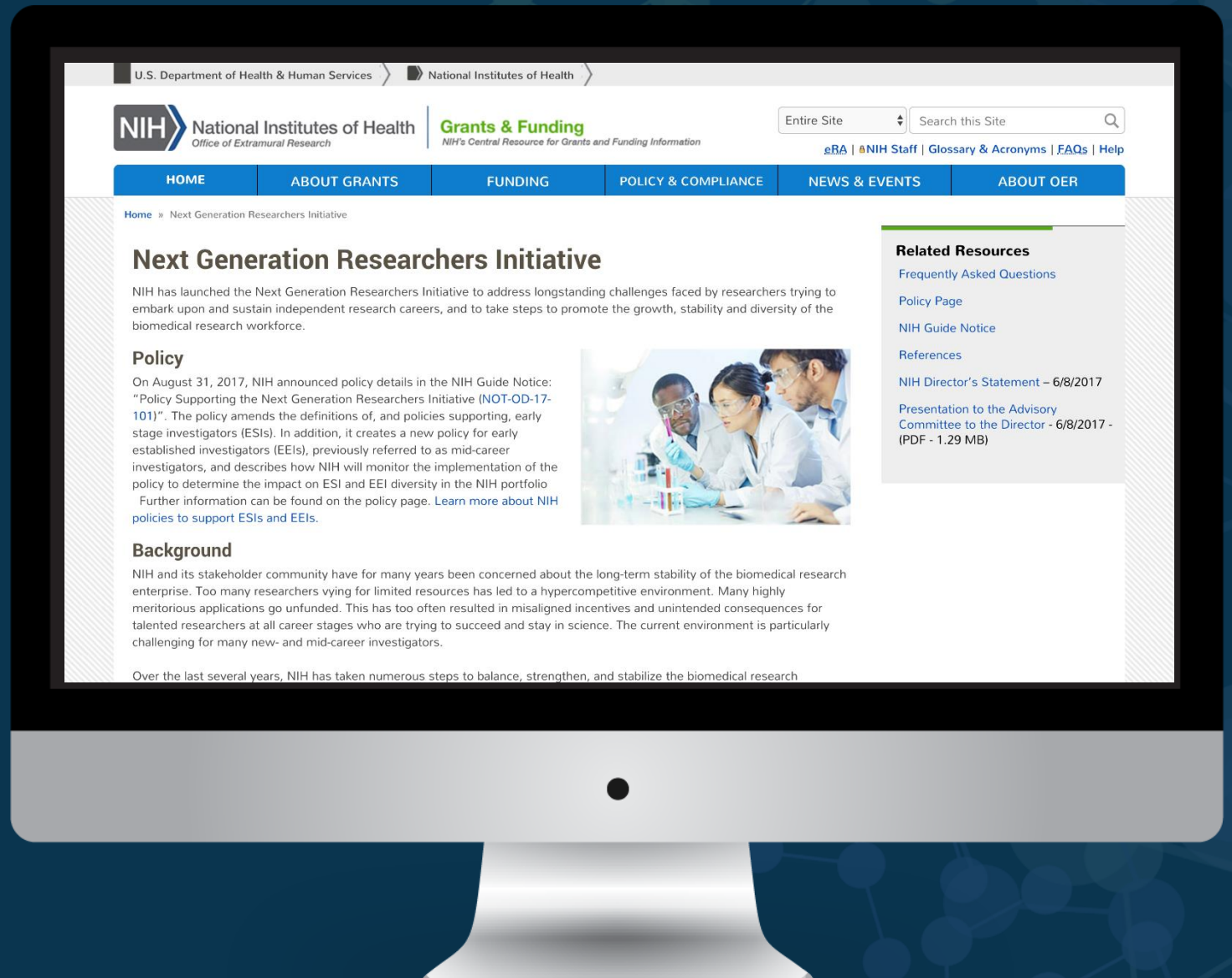
NCI recognizes that Early Stage Investigators (ESI) face challenges.

In addition to increased ESI payline, NCI is announcing its new use of the MERIT Award in 2018.

The award gives eligible investigators applying for first R01 the opportunity to obtain up to seven years of grant funding (5+2)

This will provide critical time for ESIs to launch their careers and become more established before attempting renewal.

NIH Next Generation Researchers Initiative



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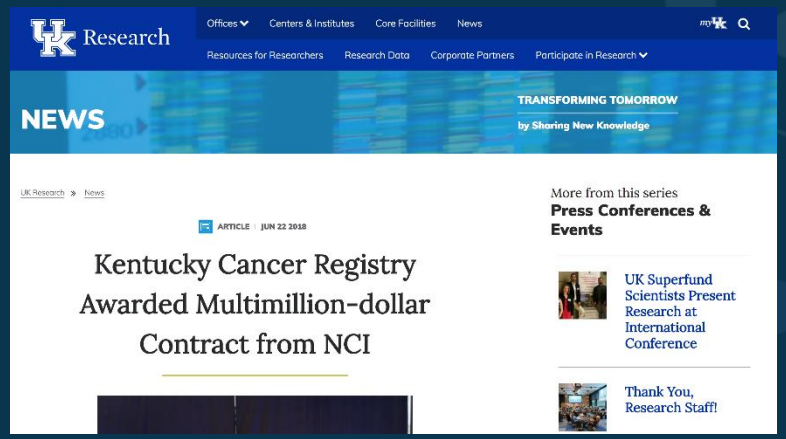
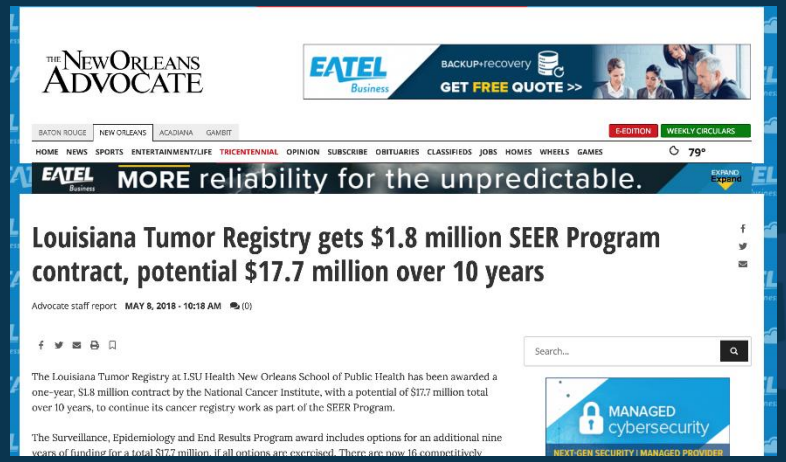
Big Data: Data Infrastructure Investments

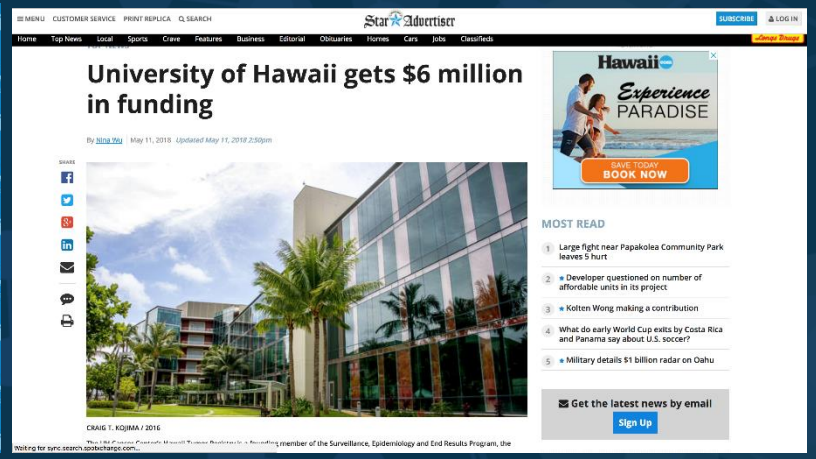
- Cancer Cloud Resources
- Data Commons Framework Services
- New reporting tools for better insight into active clinical trials
- Recommitment to DOE collaboration*
- Prototype CRDC nodes for imaging and proteomics*
- Collaborations that enable integration of EHR and insurance claims data with SEER*

*Supported by funds authorized by the 21st Century CURES Act.

Big Data: Expanded SEER Program Contract Awards







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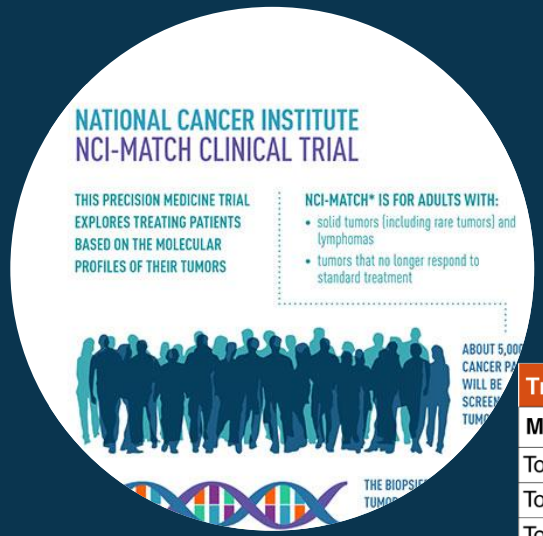
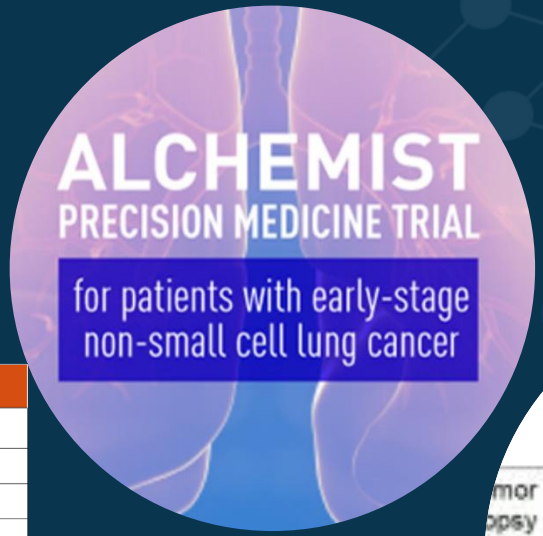
Clinical Trials



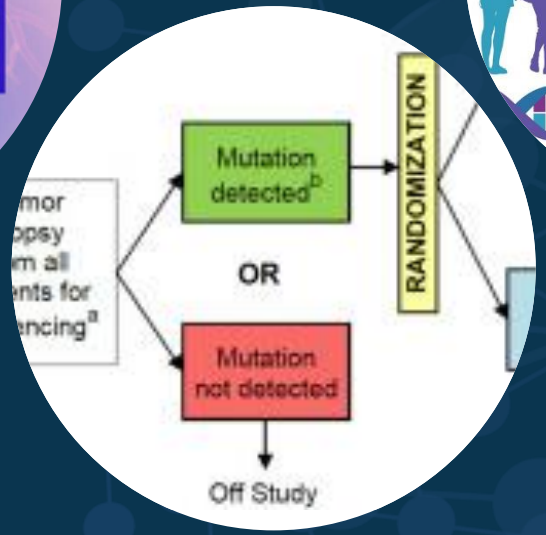
MATCH

Trial Metrics: S1400	
Metric	**Value**
Total sites open for S1400	628
Total pts registered to S1400	1672
Total pts registered to S1400A	116
Total pts registered to S1400B	39
Total pts registered to S1400C	53
Total pts registered to S1400D	43
Total pts registered to S1400E	9
Total pts registered to S1400G	48
Total pts registered to S1400I	275

LungMAP



ALCHEMIST



NCI-MPACT

Pediatric MATCH

NAVIGATE

NCI and VA Interagency Group to Accelerate Trials Enrollment

NAVIGATE will make it easier for veterans to access state-of-the-art treatments via clinical trials by bringing the trials to them, rather than seeking treatment outside of the Veterans Health Administration.

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VA | U.S. Department of Veterans Affairs
Veterans Health Administration

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cancer.gov

cancer.gov/espanol