

NCI Director's Report

Norman E. Sharpless, M.D.

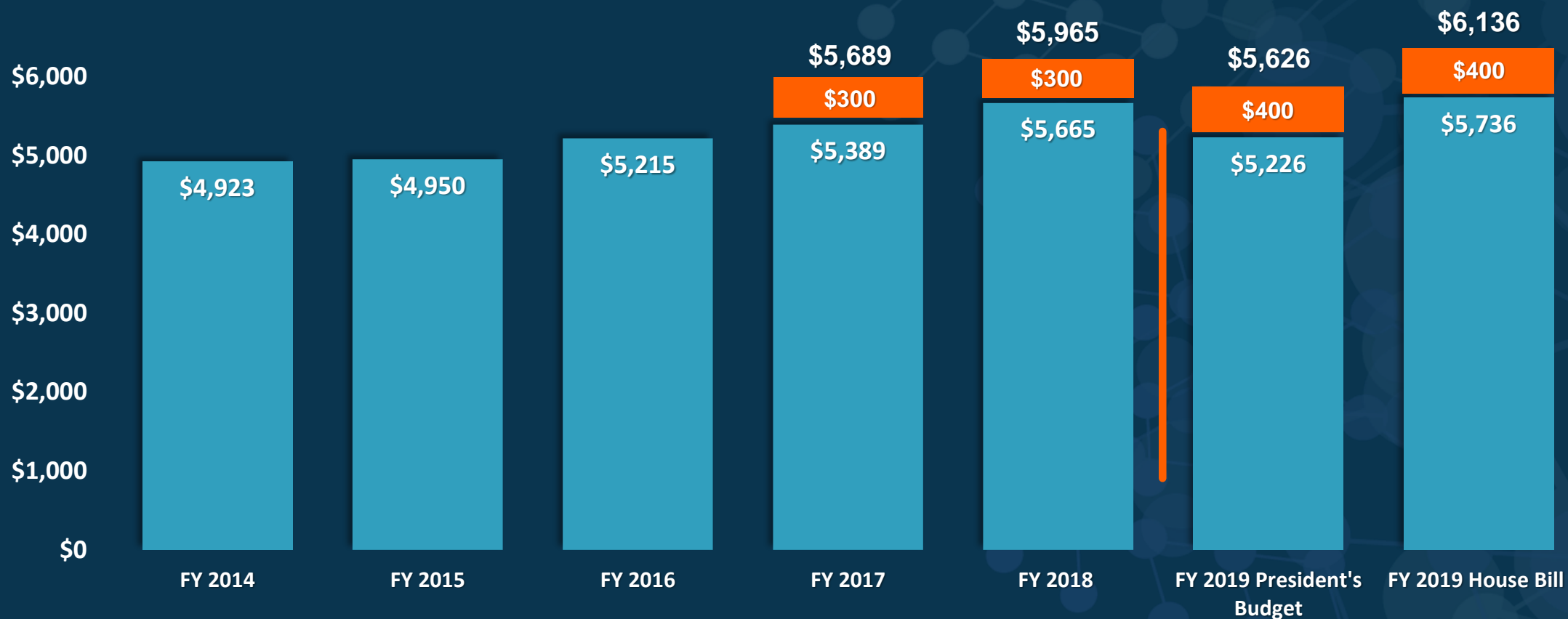
June 26, 2018

Updates

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

NCI Appropriations FY 2014-2019

(in millions)



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

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

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

FY 2018 NCI Budget Overview

Targeted Research Opportunities¹

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



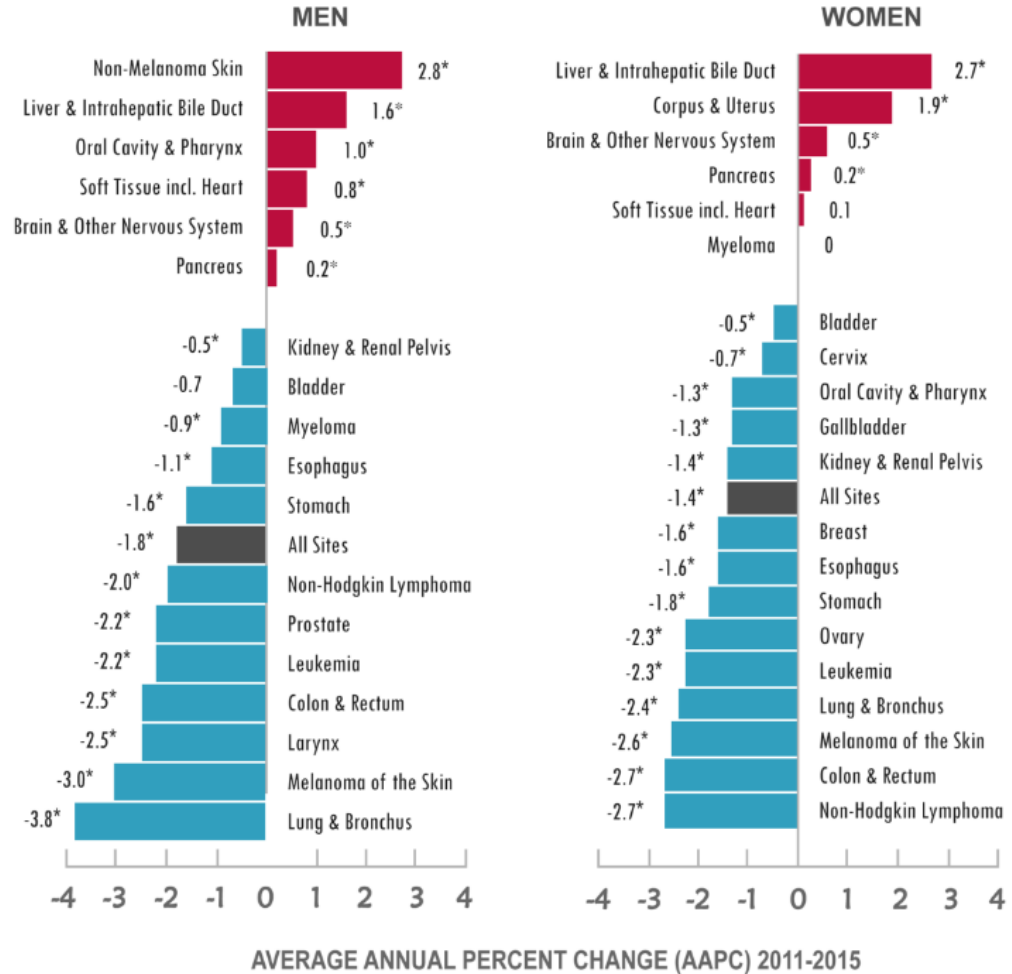
Senator Jack Reed
(D-RI) visit to NCI
– May 1, 2018

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

Blue Ribbon Panel
Recommendations

Dec. 2016



21st 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

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 that if you treat mice with antibiotics and thereby deplete certain bacteria, you can change

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

NCI Press Release

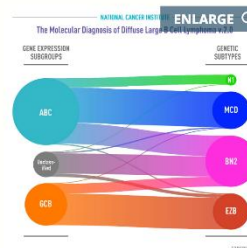
NCI study revises molecular classification for most common type of lymphoma

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*.

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



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

NCI study revises molecular classification for most common type of lymphoma

NCI Press Release

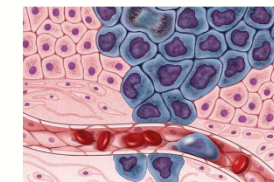
NIH completes in-depth genomic analysis of 33 cancer types

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

STAT Sections Topics Multimedia Newsletters More Q

IN THE LAB

From one breast cancer patient's turnaround, clues to a new immunotherapy


By SHARON BEGLEY @sxbegle / JUNE 4, 2018



Health & Science

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

By Laurie McGinley June 4 [Email the author](#)



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TREATMENTS

Therapy Made From Patient's Immune System Shows Promise For Advanced Breast Cancer

3:51

+ QUEUE

DOWNLOAD June 4, 2018 - 11:02 AM ET

EMBED Heard on All Things Considered

TRANSCRIPT

ROB STEIN

THE WALL STREET JOURNAL

U.S. Edition June 25, 2018 Today's Paper Videos

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Novel Immunotherapy Method Led to Complete Regression of Breast Cancer in Patient

National Cancer Institute research suggests way to reverse some other internal-organ cancers



NCI at ASCO

NIH NATIONAL CANCER INSTITUTE

1-800-4-CANCER Live Chat Publications Dictionary

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Home > News & Events > Press Releases > 2018

PRESS RELEASES

NCI Press Release

NCI-MATCH precision medicine clinical trial releases new findings, strengthens path forward for targeted cancer therapies

Posted: June 4, 2018 Contact: NCI Press Office 240-760-6600

The National Cancer Institute's Molecular Analysis for Therapy Choice (NCI-MATCH) trial, the largest precision medicine trial of its kind, has achieved a milestone with the release of results from several treatment arms, or sub-studies, of the trial. The new results offer findings of interest for future cancer research that could ultimately play a role in bringing targeted treatments to patients with certain gene abnormalities, regardless of their cancer type.

Findings from three arms were released at this

MATCH

Phase 2 Selumetinib in NF1 PN

Multi-Institutional CTEP Sponsored Study

Study Objectives:

- Primary: Complete and partial response (PR) rate as measured by volumetric MRI
- Secondary:
 - Effect on pain, quality of life, disfigurement and physical functioning
 - Long term safety and tolerability
 - Pharmacodynamics (endothelial progenitors, cytokines)

Eligibility:

- Children 2-18 years old with NF1 and inoperable PN causing morbidity

Selumetinib Administration:

- 25 mg/m²/dose BID continuous dosing (1 cycle = 28 days)

Response Evaluations:

- Volumetric MRI every 4 cycles for 2 years (then every 6 cycles)

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graph TD; RAS[RAS] --> RAF[RAF]; RAF --> MEK[MEK]; MEK --> ERK[ERK];
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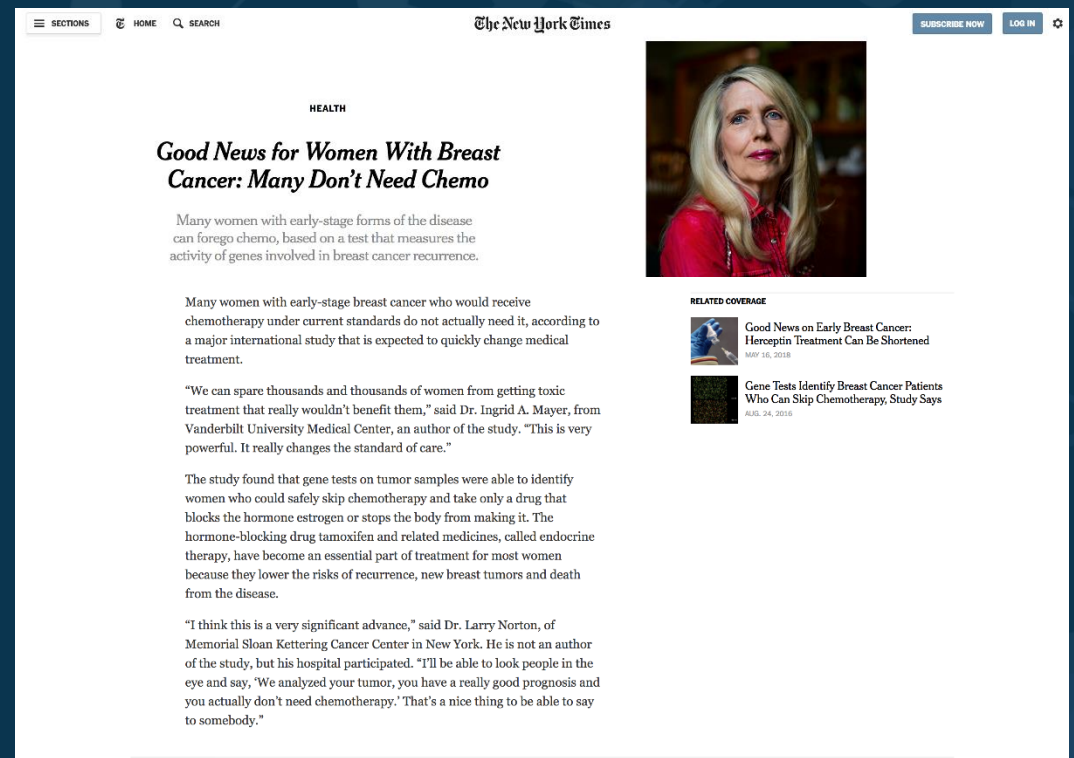
NF1

Trial Assigning Individualized Options for Treatment (TAILORx)



“I think it’s been well spent”

- Dinah S. Singer, Ph.D.



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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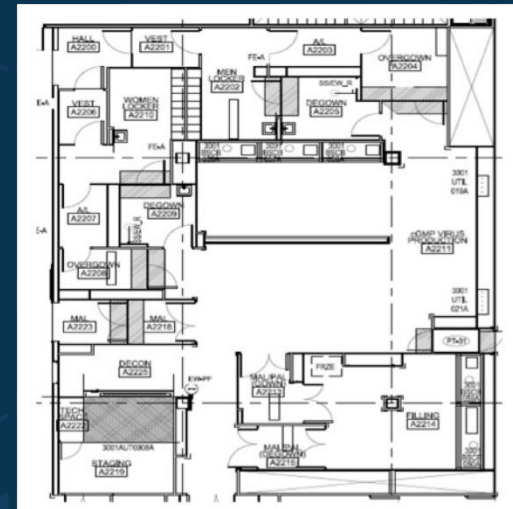
Basic Science: Frederick National Lab Updates



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**

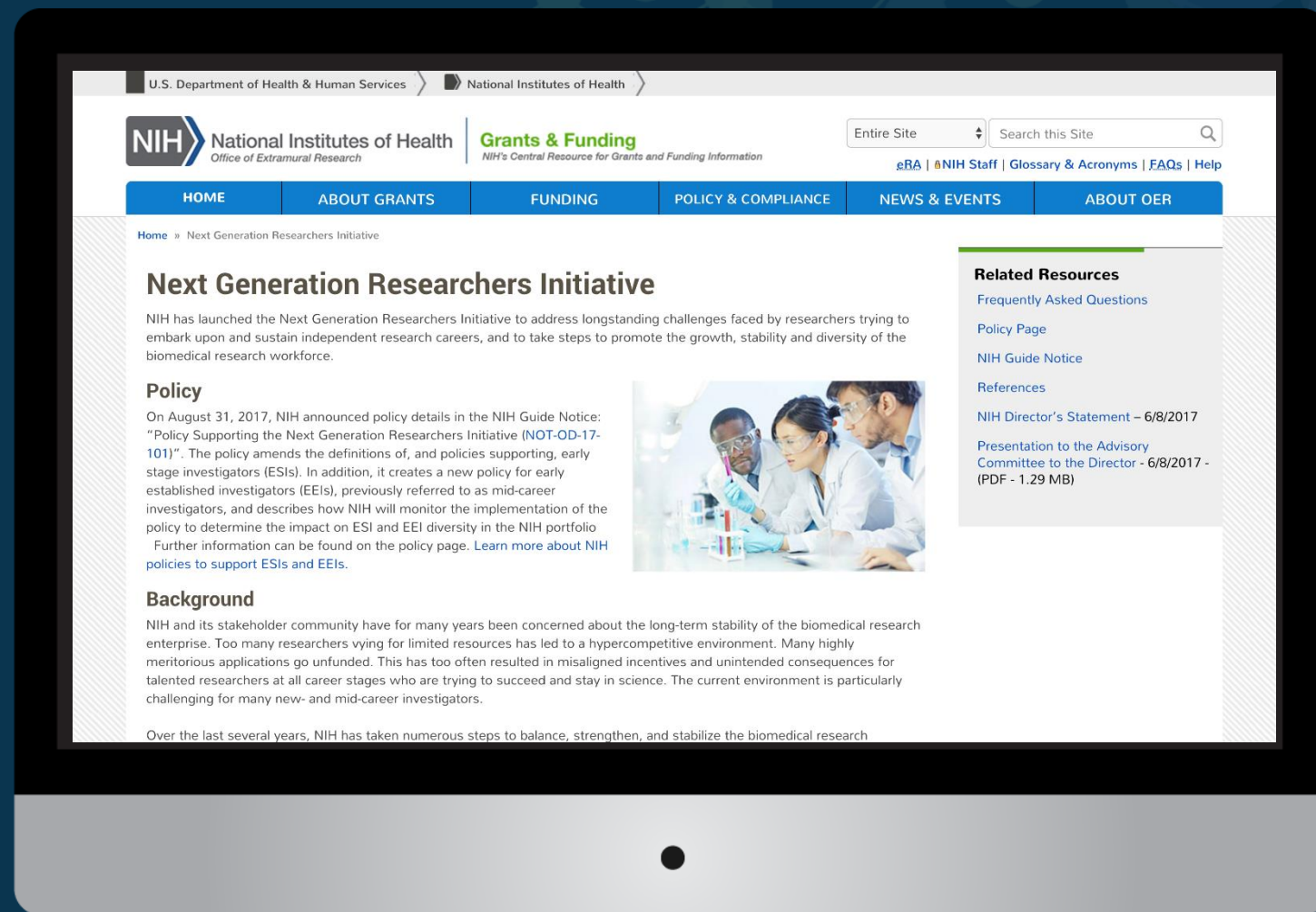
NCI recognizes that Early Stage Investigators (ESI) face challenges.

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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UK Research > News

ARTICLE JUN 22 2018

Kentucky Cancer Registry Awarded Multimillion-dollar Contract from NCI

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Press Conferences & Events

- UK Superfund Scientists Present Research at International Conference
- Thank You, Research Staff!

USC News

University of Southern California

Cancer registry managed by Keck School of Medicine of USC receives \$43.7 million award

The Los Angeles Cancer Surveillance Program has improved the understanding, prevention and control of cancer

By Zen Vuong • MAY 9, 2018

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- Particle shows promise to prevent the spread of triple-negative breast cancer

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Louisiana Tumor Registry gets \$1.8 million SEER Program contract, potential \$17.7 million over 10 years

Advocate staff report MAY 8, 2018 - 10:18 AM (0)

The Louisiana Tumor Registry at LSU Health New Orleans School of Public Health has been awarded a one-year, \$1.8 million contract by the National Cancer Institute, with a potential of \$17.7 million total over 10 years, to continue its cancer registry work as part of the SEER Program.

The Surveillance, Epidemiology and End Results Program award includes options for an additional nine years of funding for a total \$17.7 million, if all options are exercised. There are now 16 contracts in the

MANAGED cybersecurity

Star Advertiser

University of Hawaii gets \$6 million in funding

By Bill Yu | May 11, 2018 | Updated May 11, 2018 2:50pm

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Clinical Trials

**NATIONAL CANCER INSTITUTE
NCI-MATCH CLINICAL TRIAL**

THIS PRECISION MEDICINE TRIAL EXPLORES TREATING PATIENTS BASED ON THE MOLECULAR PROFILES OF THEIR TUMORS

NCI-MATCH* IS FOR ADULTS WITH:

- solid tumors (including rare tumors) and lymphomas
- tumors that no longer respond to standard treatment

ABOUT 5,000 CANCER PATIENTS WILL BE SCREENED FOR TUMOR GENETIC CHANGES

THE BIOPSY TUMOR

MATCH

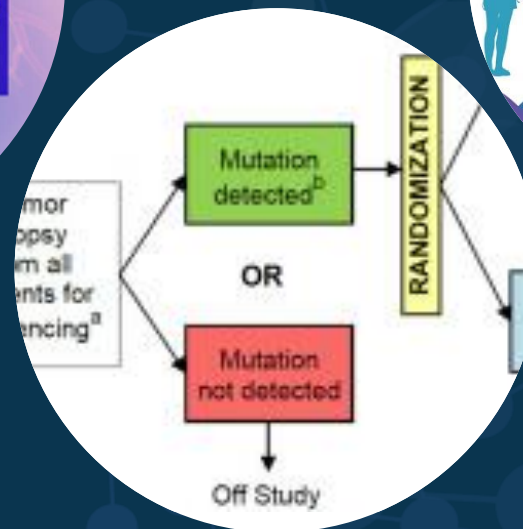
Trial Metrics: S1400	
Metric	Value
Total sites open for S1400	628
Total pts registered to S1400	1672
Total pts registered to S1400A	116
Total pts registered to S1400B	39
Total pts registered to S1400C	53
Total pts registered to S1400D	43
Total pts registered to S1400E	9
Total pts registered to S1400G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

LungMAP

**ALCHEMIST
PRECISION MEDICINE TRIAL**

for patients with early-stage non-small cell lung cancer

ALCHEMIST



NCI-MPACT

**NATIONAL CANCER INSTITUTE
NCI-Children's Oncology Group Pediatric MATCH Trial***

Precision medicine clinical trial funded by NCI and conducted by COG matches children and adolescents with treatment based on genetic changes in their tumors.

Pediatric MATCH is for patients ages 1 to 21 who have both:

- Solid tumors, including lymphomas and brain tumors, or histiocytoses
- Tumors that no longer respond to standard treatment or that have come back after treatment

ABOUT 200-300 PEDIATRIC PATIENTS ARE EXPECTED TO BE SCREENED EACH YEAR

UNDERGO TESTING FOR CHANGES IN MORE THAN 140 GENES

If a patient's tumor has a genetic change...

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.



VA



U.S. Department of Veterans Affairs
Veterans Health Administration



**NATIONAL
CANCER
INSTITUTE**

cancer.gov

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