

Report from the NCI Acting Director

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A positive outlook for cancer research

- Many opportunities to accelerate progress in virtually all areas of cancer research
- Public optimism about the future of cancer treatment: more beneficial for patients and less toxic
- Let's applaud the optimism, but recognize we must go beyond treatment for maximum progress, and not overpromise

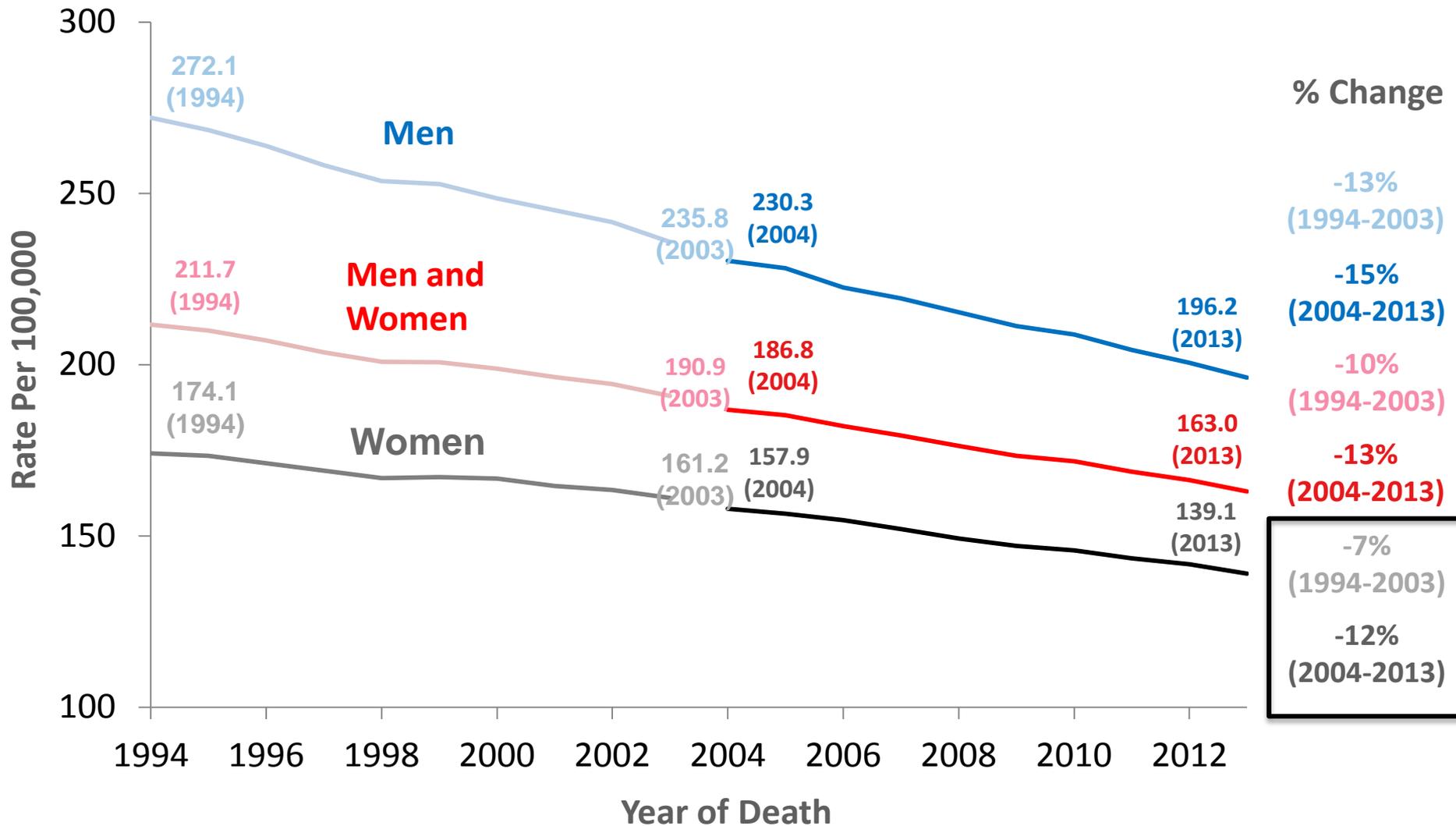
To maximize progress, we must support research in many areas

- They include basic research, etiology, pathogenesis, prevention, screening, treatment, survivorship
- Importance of implementation research and disseminating what we already know works
 - To improve cancer health by increasing standard of care uptake and by promoting healthy life styles (behavioral research, education)

Assessing the achievements of the cancer research community

- Advancing the understanding of cancer, preventing it, screening for it, treating it, and improving quality of life after a cancer diagnosis
 - Importance of continuing to do what has never been done before
- Decreasing cancer mortality rates overall and for specific cancers
- Attract and retain high quality young investigators

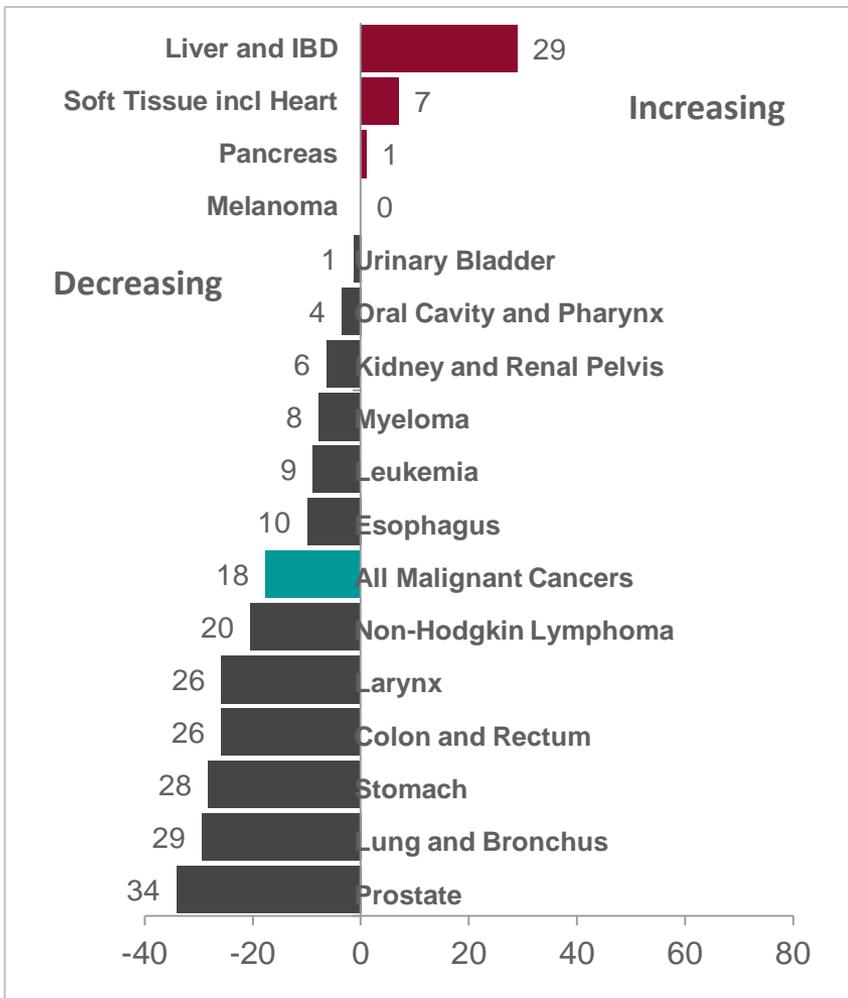
US Cancer Mortality Rates for All Cancer Sites Declined By 10% During 1994-2003 and by 13% During 2004–2013



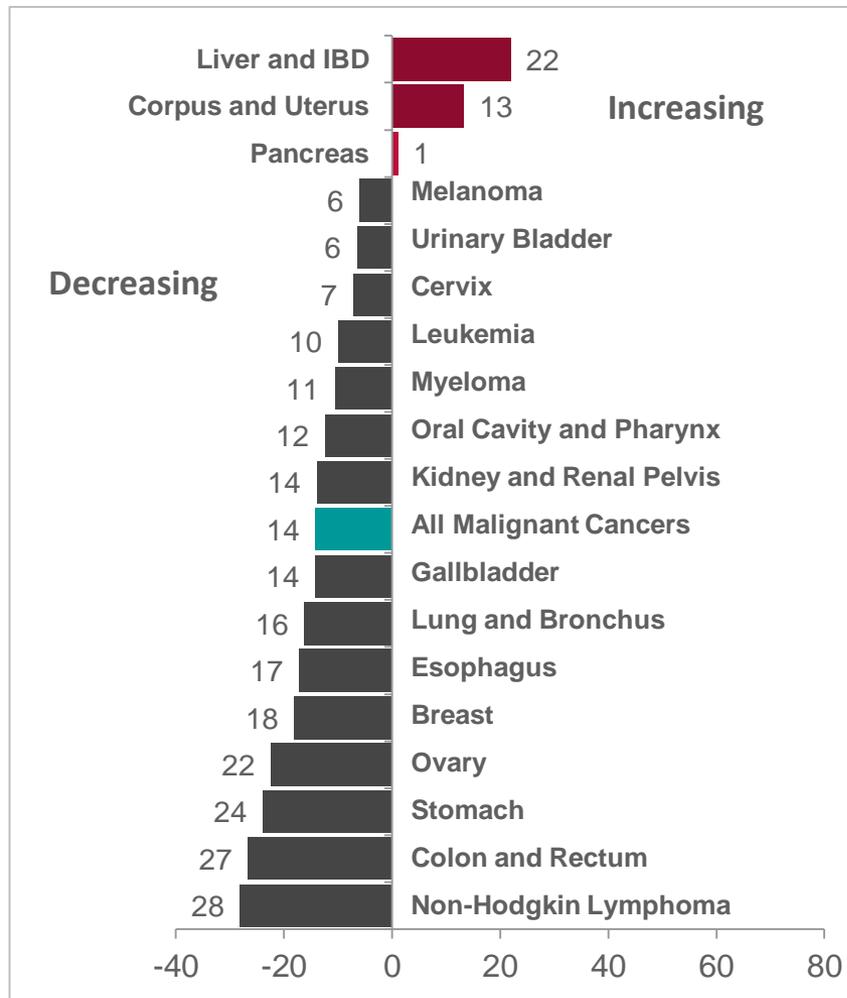
Mortality data source: National Center for Health Statistics (NCHS)

Mortality Rates Have Decreased at Most Cancer Sites: 2004-2013

Men



Women



Percent Change 2004–2013

Frederick National Laboratory & FNLAC

- Conducts and coordinates research that would be difficult or less efficient to carry out by other mechanisms
 - RAS initiative
- Many projects use state of the art technology or develop critical reagents to help address important cancer research problems

Cryo-electron microscopy user facility

- FNLAC recommends establishment of cryo-EM user facility at FNL, September 2015
- Titan Kronos microscope delivered and being installed
- Planned to open in Fall 2016
- Steering committee in process

Specific topics for today

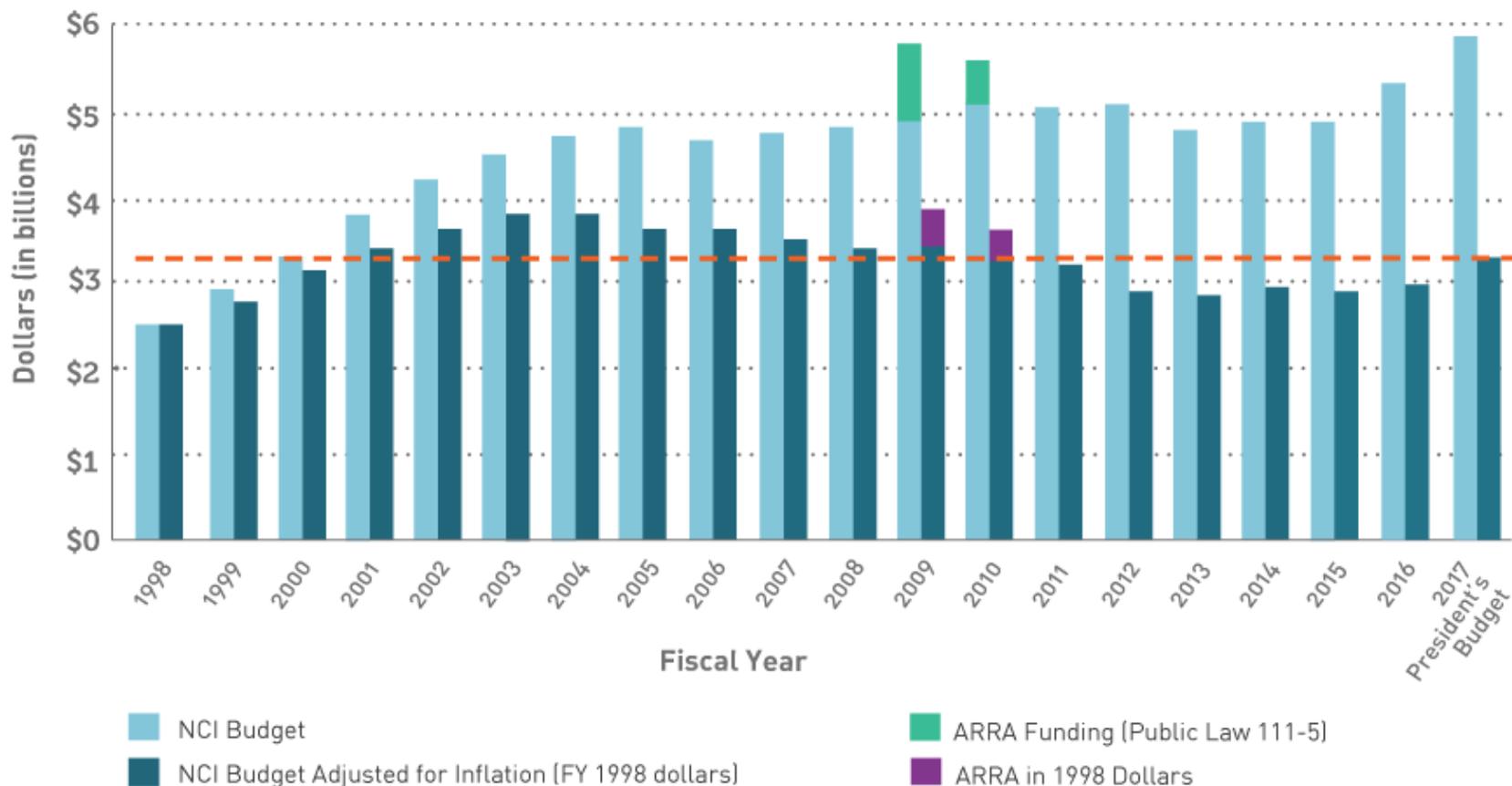
- The NCI budget outlook: positive for FY16 and as proposed for FY17
- The Vice President's Cancer Initiative (with Dinah Singer)
 - Cutting edge research as well as increasing the uptake of standard of care
 - Increase collaboration & sharing, decrease administrative and regulatory barriers

NCI Budget Outlook

A Positive Outlook for Cancer Research Funding

- Strong bipartisan support for NCI/NIH
 - Key role of advocacy
 - Faster progress for patients
- Potential for continuing increases in Federal cancer research funding
- Coordination with private funding efforts
- MK Holohan presentation

NCI BUDGET 2005 – 2015: A PERIOD OF LEVEL BUDGETS & PROGRESSIVELY DECREASING PURCHASING POWER FY 2016 & 2017: AN ENCOURAGING TREND



----- The dashed line at approximately \$3.3 billion indicates that the inflation-adjusted FY 2017 proposed budget is similar to the FY 2000 budget

NCI FY16
Appropriation:
A ~5% increase

- ~\$265 million total increase
- Where we are spending the increase:
 - the President's Precision Medicine Initiative in Oncology (PMI-O)
 - Investigator-initiated research (RPG pool)
 - Cancer center support grants
 - Overhead/inflation costs

The Vice President's Cancer Initiative

The Vice President's Cancer Initiative

- Accelerate progress in cancer, including prevention & screening
 - From cutting edge basic research to wider uptake of standard of care
- Encourage greater cooperation and breaking down silos
 - Within and between academia, government, and private sector
- Importance of data sharing: Genomic Data Commons, annotated patient level clinical data & -omics: Warren Kibbe's presentation

Unintentional communication that cancer is now a technological/engineering problem?

- Terms such as “precision medicine”: do they inadvertently imply understanding that is greater than it is, and that advances in cancer no longer depend on scientific discovery of the unknown?
- Immune checkpoint inhibitors: based on understanding immune regulation, but still much that we don't understand
- Emphasize: progress in cancer remains heavily dependent on developing new knowledge

An Opportunity for Focused Research to Accelerate Progress

- Take advantage of current advances in the understanding of cancer and recent technological innovation
- Apply the knowledge and innovation to focus on specific projects that can have a substantial impact on understanding and/or improvement for patients
- NB: NCI will continue to support a great deal of other meritorious research

Vice President's Cancer Initiative Workflow

Vice President's Office



Cancer Moonshot
Federal Task Force



NCI/NIH



NCAB



"Blue Ribbon Panel"



Working Groups



Members of the Federal Task Force (Partial Listing)

- **The Vice-President**
- **Health & Human Services**
 - **NCI**
 - **NIH**
 - **FDA**
- **Commerce (US Patent & Trademark Office)**
- **Dept Of Defense**
- **Veteran's Administration**
- **Dept Of Energy**
- **NSF**
- **Etc..**

Federal Task Force Goals

- **Accelerate our understanding of cancer, its prevention, early detection, treatment and cure;**
- **Support greater access to new research, data, and computational capabilities;**
- **Improve patient access and care;**
- **Identify and address any unnecessary regulatory barriers and consider ways to expedite administrative reforms;**
- **Identify opportunities to develop public-private partnerships and increase coordination of the Federal Government's efforts with the private sector, as appropriate.**

(Presidential Memo 2016)

Blue Ribbon Panel

“The Blue Ribbon Panel ... will provide expert advice on the vision, proposed scientific goals, and implementation of the National Cancer Moonshot. ..The panel may also recommend other cancer research activities to enhance this effort.

“The Panel will provide an intensive examination of the opportunities and impediments in cancer research... the Panel may call upon special consultants, assemble ad hoc work groups, convene workshops, and conduct other activities. Findings and recommendations of the Panel will be reported to the NCAB.

“The NCAB will use the Panel’s findings and recommendations to provide final recommendations to the NCI Director.”

(Presidential Memo 2016)

Blue Ribbon Panel Goals

- **Identify major scientific opportunities that are poised to be accelerated by additional emphasis and funding**
- **Identify major scientific and regulatory hurdles that can be overcome with additional emphasis and funding**
- **Suggest mechanisms (broadly) to address research gaps in knowledge, develop key technologies and/ or overcome impediments to implementation that will facilitate progress toward goals**
- **Develop 5-10 recommendations of opportunities that would be pursued through the Vice President's Cancer Initiative**

Topic Areas for Working Groups

- **Cancer immunology and Prevention**
- **Tumor evolution and Progression**
- **Precision prevention and early detection**
- **Expanding Clinical Trials**
- **Pediatric cancer**
- **Enhanced data sharing**
- **Implementation sciences**

Each Working Group should have 10-12 members and will be expected to generate 2-3 recommendations of major scientific opportunities that are poised for acceleration, to bring to the Blue Ribbon Panel to prioritize

Cross-Cutting Themes

- **Prevention**
- **Technology and preclinical models**
- **Data sharing and predictive computational modeling**
- **Health Disparities research**
- **Tumor heterogeneity**
- **Biomarkers**

BRP Working Groups

Working Group	Co-Chair	NCI Staff
Cancer Immunology	Liz Jaffee, Jim Allison	Toby Hecht, Kevin Howcroft
Precision Prevention and Early Detection	Mary Bekerle, Jennifer Pietenpol	Elisa Woodhouse Tracy Lively
Tumor Evolution	Chi Dang, Levi Garraway	Joanna Watson, Suresh Mohla, Tony Dickherber
Clinical Trials	Charles Sawyers, Mitch Berger	Jeff Hildesheim Meg Mooney
Implementation Sciences	Elena Martinez, Augusto Ochoa	Bob Croyle, Wortá McCaskill- Stevens, Jennifer Couch
Pediatric Cancer	Peter Adamson Jim Downing	Judy Mietz Malcolm Smith
Enhanced Data Sharing	Angel Pizarro Gaddy Getz	Juli Klemm Betsy Hsu

Blue Ribbon Panel Timeline

April/May 2016

- Blue Ribbon Panel (BRP) discussion of its charge and organize working groups
- Working Groups generate a series of recommendations
 - All 7 Working Groups to meet weekly beginning May 9
- NCI staff incorporate recommendations into draft reports

June/July 2016

- BRP discusses and edits Working Groups recommendations
- Working groups finalize their recommendations
- NCI staff finalize individual Working Group reports and integrate them into a single coherent report

July/August 2016

- BRP report circulated, edited, finalized and sent to the NCAB
- NCAB discusses the BRP report and make recommendations to the NCI

August/October 2016

- NCI prepares FOA concepts for approval and publication

January/March 2017

- Receipt date for applications responding to FOAs

June/July 2017

- Review of applications
- Funding of awards

Currently Proposed Strategy for Scientific Outreach

Goal:

- **Provide public and experts beyond the Working Groups ways to submit ideas**
- **Increase the public's participation in the Cancer Initiative**

Approaches:

- **Online public idea repository
(CancerResearchIdeas.cancer.gov)**
- **One-on-one public input: email**
- **Professional meetings**
 - **AACR**
 - **ASCO**

CANCER

research ideas

Visit CancerResearchIdeas.cancer.gov
to submit your idea and to see what
others are sharing.

 Follow the conversation at
[#CancerMoonshot](https://twitter.com/CancerMoonshot)

Contribute your cancer research
ideas for the National Cancer
Moonshot Initiative!