

# NCI Director's Report

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Norman E. Sharpless, M.D.

*5<sup>th</sup> Joint Virtual Meeting of the Board of Scientific  
Advisors and National Cancer Advisory Board*

*December 7-9, 2021*

@NCIDirector  
@TheNCI

# Welcome! New BSA Members

**Keith T. Flaherty, M.D. (Chair)**

Massachusetts General Hospital Cancer Center

**Chandraknath Are, M.B.B.S., M.B.A.**

University of Nebraska Medical Center

**Suzanne J. Baker, Ph.D., M.P.H.**

St. Jude Children's Research Hospital

**Karen M. Basen-Enguist, Ph.D., M.P.H.**

University of Texas MD Anderson Cancer Center

**Andrew T. Chan, M.D., M.P.H.**

Harvard Medical School

**Nelson J. Chao, M.D., M.B.A.**

Duke University School of Medicine

**Gloria D. Coronado, Ph.D.**

Kaiser Permanente Center for Health Research

**Chyke A. Doubeni, M.B.B.S., M.P.H.**

Mayo Clinic

**Shelton "Shelley" Earp, M.D.**

University of North Carolina at Chapel Hill

**Dorothy K. Hatsukami, Ph.D.**

University of Minnesota

**Trey Ideker, Ph.D.**

University of California, San Diego

**Karen M. Mustian, Ph.D., M.P.H.**

University of Rochester School of Medicine and Dentistry

**Erle S. Robertson, Ph.D.**

University of Pennsylvania School of Medicine

**Richard C. Zellars, M.D.**

Indiana University

# Welcome! New NCAB Members

**John D. Carpten, Ph.D. (Chair)**  
University of Southern California

**Nilofer S. Azad, M.D.**  
Johns Hopkins University

**Luis Alberto Diaz, Jr., M.D.**  
Memorial Sloan Kettering Cancer Center

**Christopher R. Friese, Ph.D., R.N.**  
University of Michigan

**Amy B. Heimberger, M.D.**  
Northwestern University Feinberg School of  
Medicine

**Ashani T. Weeraratna, Ph.D.**  
Johns Hopkins Bloomberg School of Public Health,  
Johns Hopkins School of Medicine

**Karen M. Winkfield, M.D., Ph.D.**  
Vanderbilt University School of Medicine

# National Cancer Advisory Board

## 2021 Retiring Members

**Peter C. Adamson, M.D.**

Sanofi

**Deborah Watkins Bruner, R.N., Ph.D., F.A.A.N.**

Emory University

**Timothy J. Ley, M.D.**

Washington University School of Medicine in St. Louis

**Max S. Wicha, M.D.**

University of Michigan

**Yuan Chang, M.D.**

University of Pittsburgh School of Medicine

# The National Cancer Act of 1971



Public Law 92-218  
92nd Congress, S. 1828  
December 23, 1971

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The National  
Cancer Act of  
1971.

STAT. 778

STAT. 779

*"The Act was of great significance ...for the entire biomedical research enterprise, carrying substantial implications for the allocation of resources, the strategy of research management, and the organization of the enterprise that reached well beyond cancer."*

Richard A. Rettig

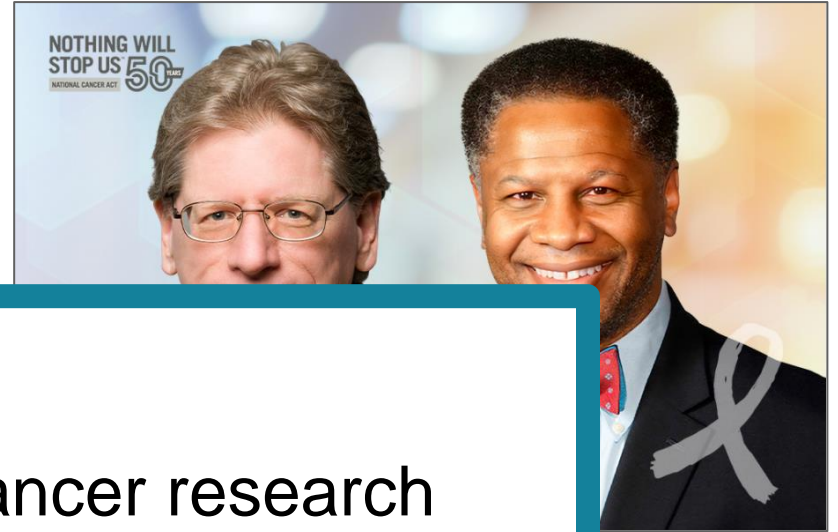
*Cancer Crusade: The Story of the National Cancer Act of 1971*

**NOTHING WILL  
STOP US** 50 YEARS  
NATIONAL CANCER ACT



# 50 Years of Progress in Treating Patients with Cancer

By Richard Pazdur, MD, Director, Oncology



## Join us today!

- Share **your vision** for the future of cancer research
- Post a **15 to 30-second video clip on social media**
- Answer the prompt:

***“Ending cancer as we know it means...”***

- Use **#NothingWillStopUs, #NadaNosDetendrá**



ASH Clinical  
@ASHClinical

The National C  
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that continues

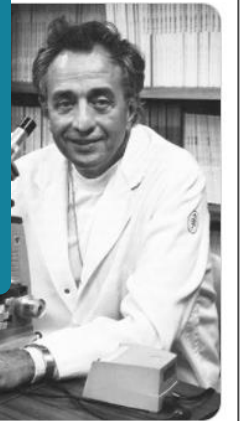


The National Cancer Act Turns 50 - ASH Clinical News  
The National Cancer Act Turns 50 - Feature Articles,  
Spotlight - ASH Clinical News

9:00 AM · Dec 2, 2021 · Twitter Web App

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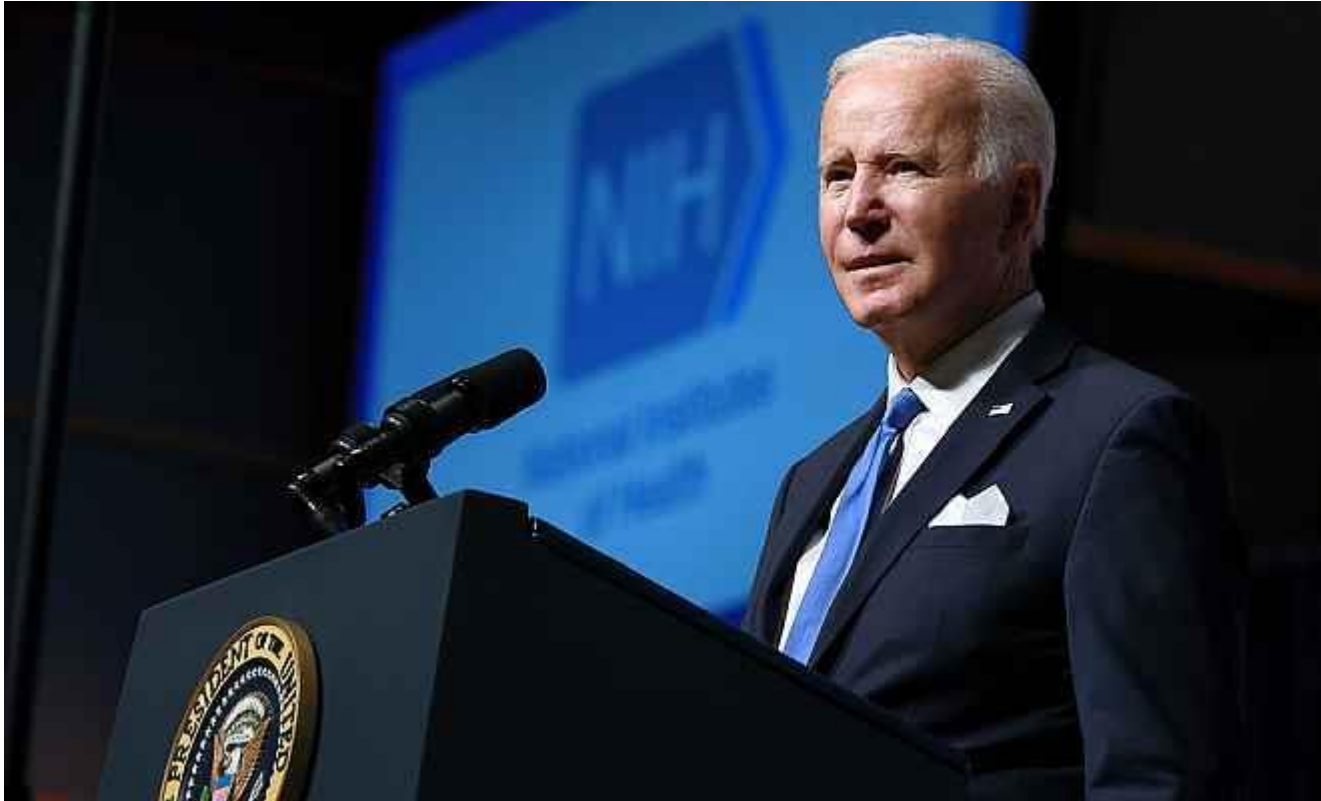
director of SKI  
73?



med.wisc.edu

Wisconsin's Mary Lasker a driving force behind National Cancer Act  
The University of Wisconsin School of Medicine and Public Health in  
Madison addresses the evolving health care needs of Wisconsin and ...





“Now as we move into the winter and face the challenge of this new variant, this is a moment we can put this divisiveness behind us... **unite the nation in a common purpose to fight this virus.**”

“This new variant is cause for concern but not panic...**we have the best tools** – the best vaccines in the world and the best medicine and the best scientists in the world. **We’re going to fight this variant with science and speed.**”

President Biden at NIH  
December 2, 2021

# Dr. Henry Rodriguez on detail to OSTP

## Assistant Director for Strategic Health and Cancer Science

White House Office of Science and Technology Policy

Executive Office of the President

*Founding Director, NCI Office of Cancer Clinical Proteomics Research*



THE WHITE HOUSE  
WASHINGTON



# Cancer as we know it today

We have too few methods to prevent cancer.

We lack effective early detection approaches to diagnose many types of cancer.

Cancer kills 600,000 people per year in the United States, including close to 1,800 aged 19 and under.

We have stark inequities in diagnosis, treatment and trial access, and patient outcomes, based on race, region and resources.

We leave too many patients and families to navigate the disease on their own.

We have curative therapies that come at the cost of serious side effects.

We have limited success in some of the toughest to treat and rare cancers.

# What it will take to end cancer as we know it

**Build on 50 years of progress**

**Advance health equity**

**Personalize cancer care**

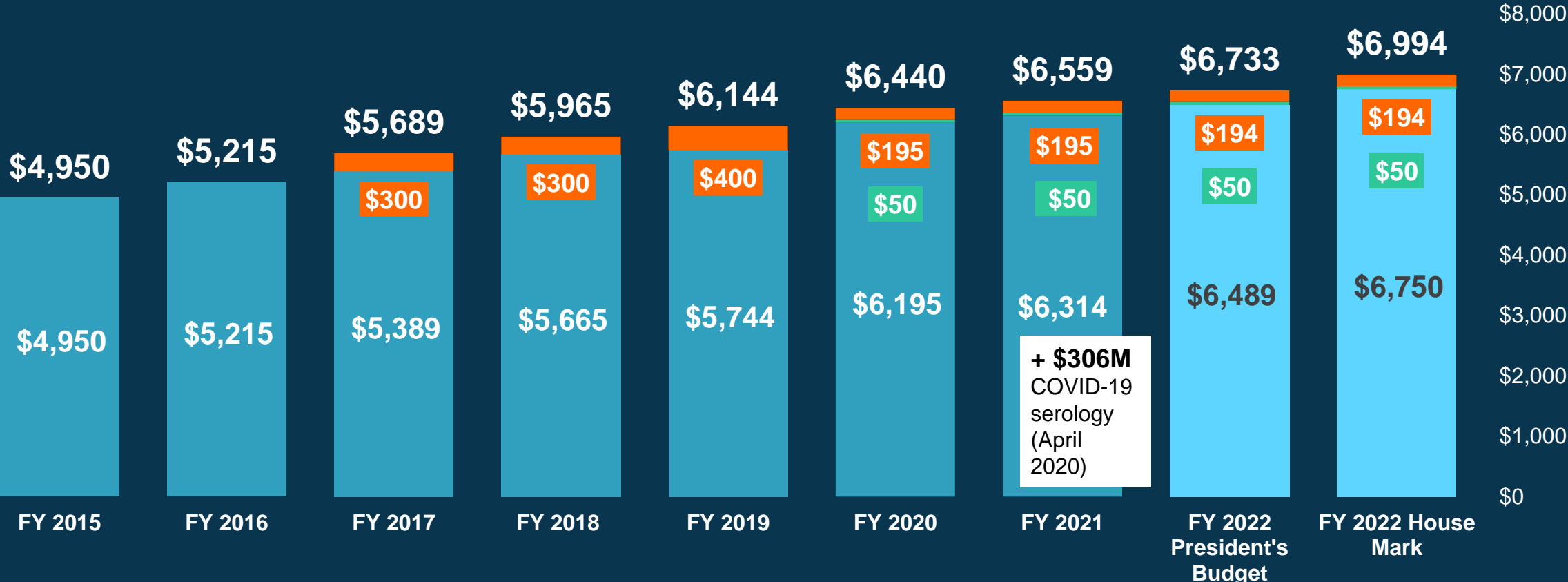
**Embrace technology and innovation to learn from every patient**

**Inspire the next generation of diverse researchers**

**Prepare for the challenges of the future**

# NCI Appropriations FY 2015 – 2022 (in millions)

21<sup>st</sup> Century Cures Act - orange  
Childhood Cancer Initiative - green



**FY 22 Continuing Resolution expires February 18.**


# NCI Interim Paylines for FY 2022

GRANT TYPE	INTERIM PAYLINE
R01 Grants for Established and New Investigators	9th Percentile
R01 Grants for Early-Stage Investigators (ESIs)	14th Percentile
R21 Exploratory Grants	9th Percentile
<b>Non-competing grants</b> will be funded at <b>90%</b> during this period of uncertainty.	



**NCI Bottom Line: A Blog about Grants and More**

[Subscribe](#)

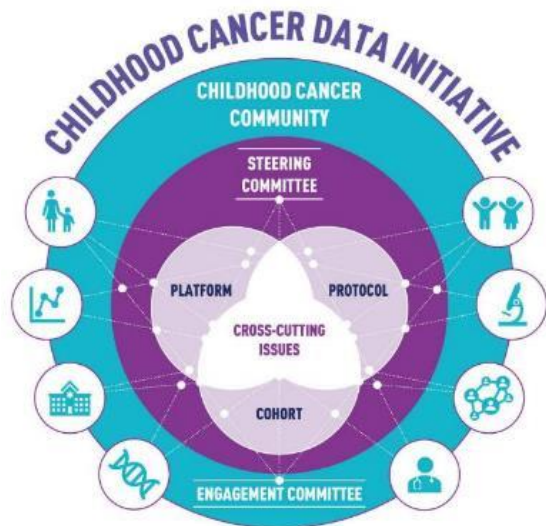


**Familiar Fiscal Challenges for NCI**

December 6, 2021, by NCI Director Dr. Norman E. Sharpless

On the heels of Congress extending the Continuing Resolution for FY 2022, the NCI Director addresses what short-term funding means for NCI's grantee community. As in years past, Dr. Sharpless highlights the Institute's interim payline policies for both competing and noncompeting grants.

# Childhood Cancer Data Initiative



## CCDI Annual Symposium

November 9, 2021  
Video available on  
[cancer.gov](https://www.cancer.gov).

## Childhood Molecular Characterization Protocol

- Open to all children with cancer
- Will provide clinical and molecular information to every child with cancer
- Builds on *Project: EveryChild*
- Will characterize ~3,000 children with hard-to-treat cancers

## National Childhood Cancer Registry

- Integrates data from registries, hospitals, research centers, insurers
- Will generate accurate count of cancer cases
- Database to expand with genomic and tumor characteristics, treatment info, recurrence indicators, etc.

# U.S.-U.K. Bilateral Cancer Summit



Doug Mills/The New York Times

*We have too few methods to prevent cancer.*

*Cancer detection is often too late, too slow, and too expensive.*

*We face racial and socio-economic disparities in diagnosis and outcomes.*

*We fail to learn as much as we can from every patient in our health systems and those participating in clinical trials.*

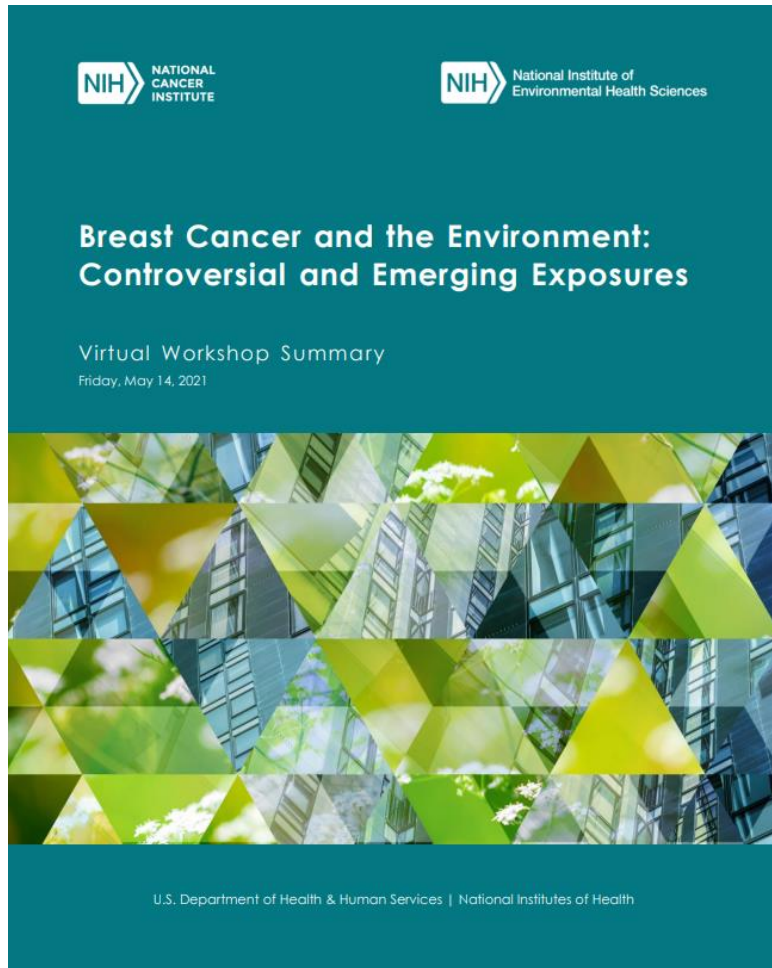
*Too many of our new treatments are based on paradigms that are not driving overall survival improvements.*

*We don't understand how tumorigenesis in the absence of clear mutational processes occurs.*



- Scientific Summit held Nov. 2021
- Leadership Summit – Spring 2022

# Breast Cancer and the Environment



- NCI-NIEHS meeting in May 2021 to discuss the evolving science and opportunities to advance our work in this area.
- Workshop summary available on [cancer.gov](https://www.cancer.gov).

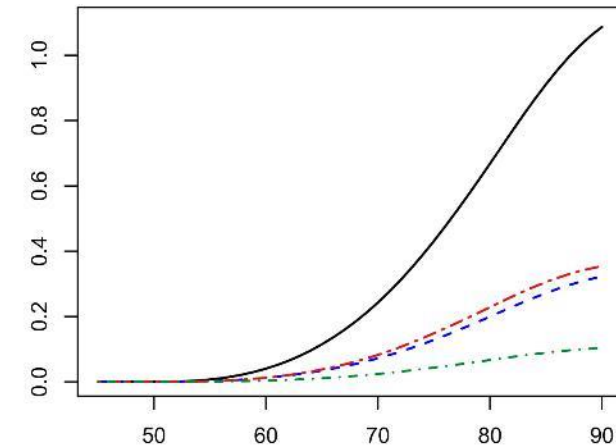
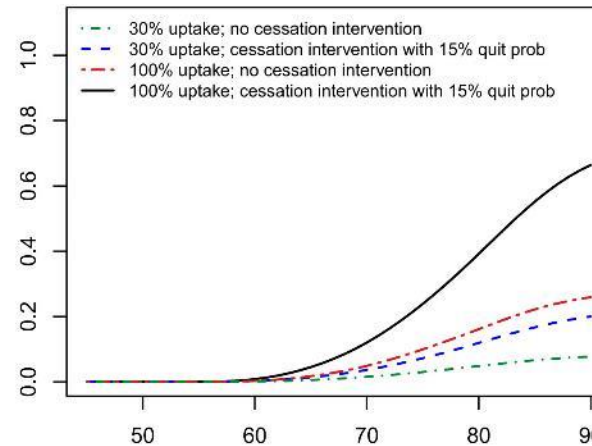
# Joint Lung Cancer Screening & Cessation Interventions Under New USPSTF Recommendations

- Joint screening and cessation interventions would result in considerable life-years gained and deaths averted
- Incorporating cessation programs into screening practice can maximize overall benefits

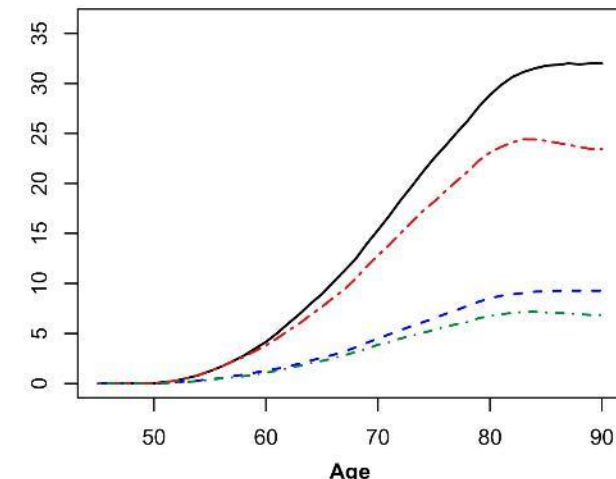
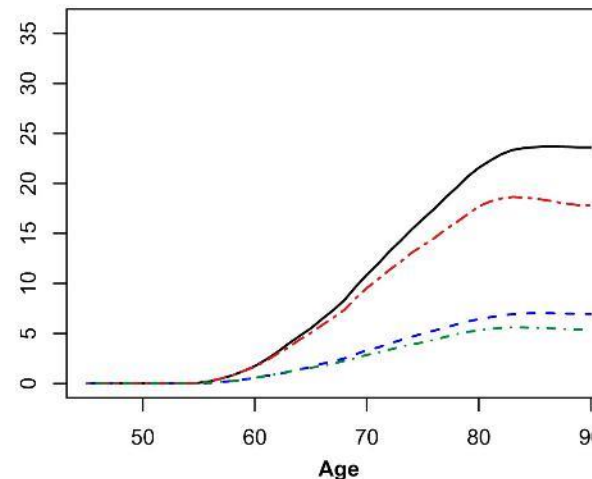
## USPSTF guidelines

2013

2021



Life-years gained (millions)



Deaths Averted (thousands)

Meza R, Cao P, Jeon J, et al. Impact of Joint Lung Cancer Screening and Cessation Interventions Under the New Recommendations of the U.S. Preventive Services Task Force. *J Thorac Oncol.* 2021;S1556-0864(21)03208-1.

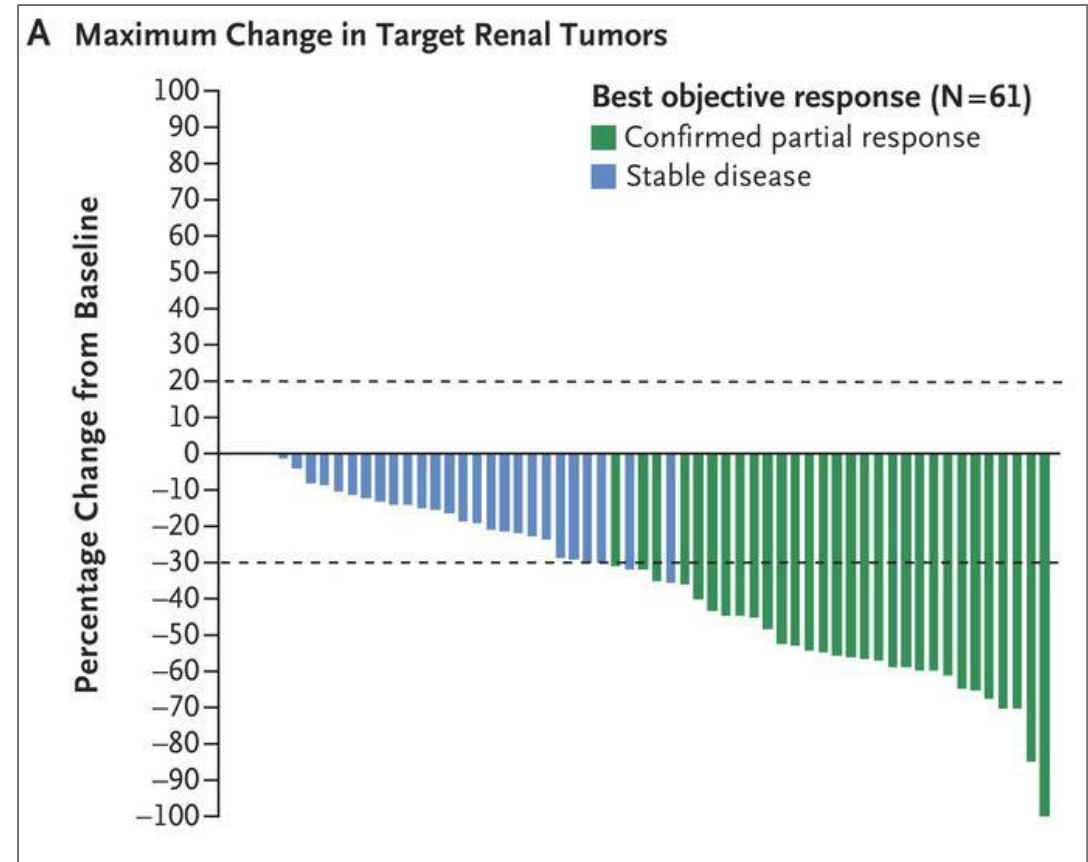


# Belzutifan for von Hippel–Lindau (VHL) Tumors

Patients received 120mg once daily until side effects or disease progression

Belzutifan targets HIF2a, which is activated in VHL-deficient tumors

**This advance resulted from years of NCI support in the intramural (Linehan, Zbar, Klausner) and extramural (Kaelin, Semenza) programs.**

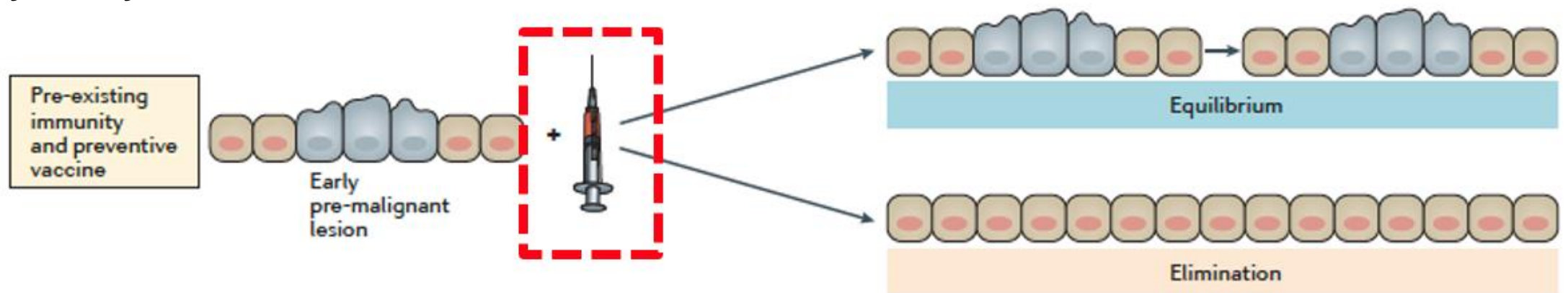


Jonasch E, Donskov F, Iliopoulos O, et al. Belzutifan for Renal Cell Carcinoma in von Hippel-Lindau Disease. *N Engl J Med.* 2021;385(22):2036-2046.

doi:10.1056/NEJMoa2103425

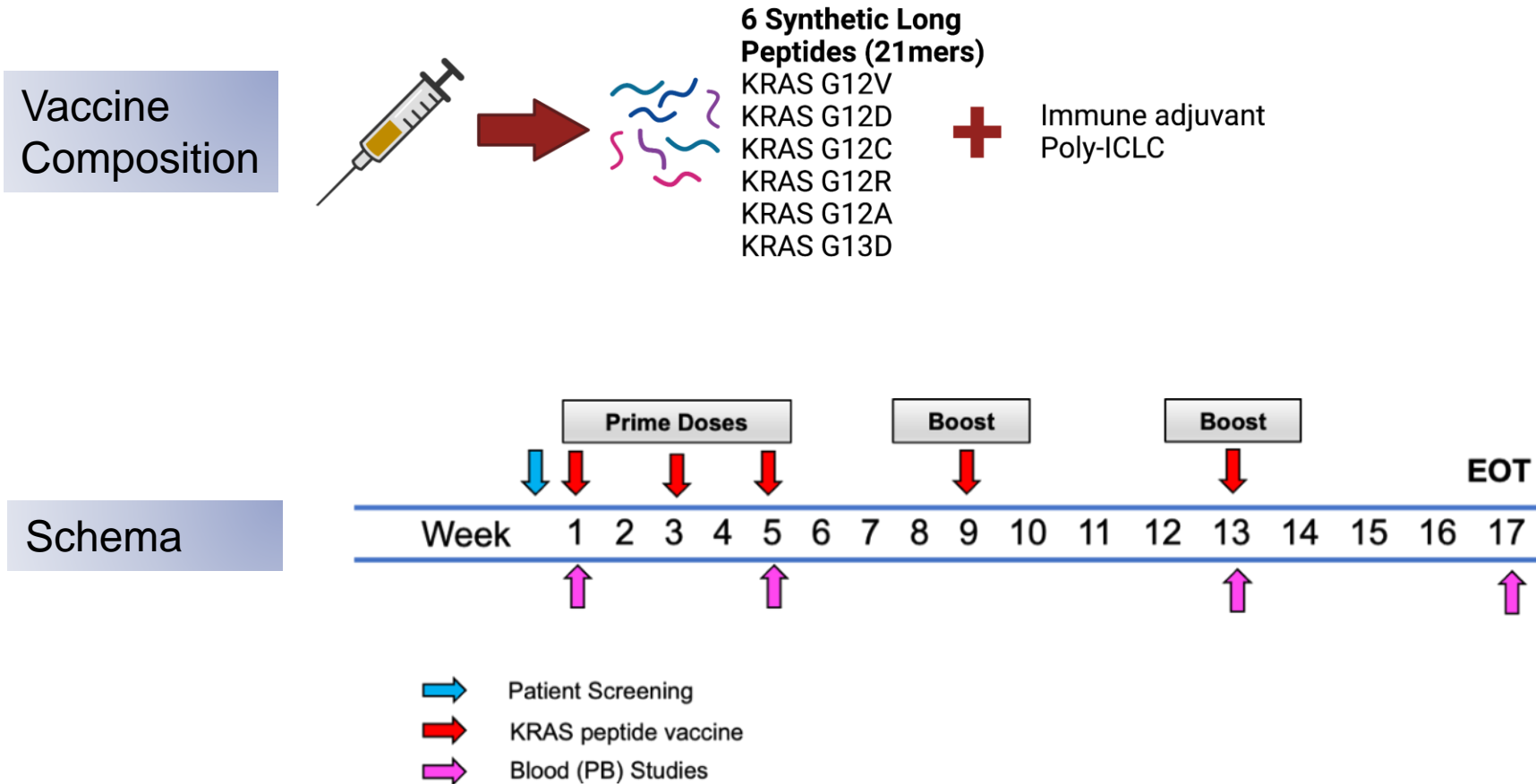
# A Phase Ib/II Clinical Trial of Nous-209 for Recurrent Neoantigen Immunogenicity and Cancer Immune Interception in Lynch Syndrome

## Lynch Syndrome Vaccines



Finn, *Nature Review Immunology* (2018)

# Mutant KRAS-Targeted Long Peptide Vaccine for Patients at High Risk of Developing Pancreatic Cancer



*Based on preclinical studies funded by the NCI.  
Study funded in part by NCI GI SPORE Program.*

# NCI-COG Pediatric MATCH – Updates



- Enrollment will **pause** when the screening process changes after December 31.
- Once enrollment resumes (tentatively mid-March 2022), treating physicians may send their patients' tumor samples to any CLIA-certified laboratory for genomic sequencing and 6 treatment arms will continue to enroll participants.

# Advancement of Scientists from Diverse Backgrounds

- **Application deadline: Dec. 31, 2021**
- Target start date: March 1, 2022
- Pre-application webinar on December 9 (4-5 pm EST)
- Visit EIAP webpage for more information:  
<https://www.cancer.gov/about-nci/organization/crchd/diversity-training>



# Discussion