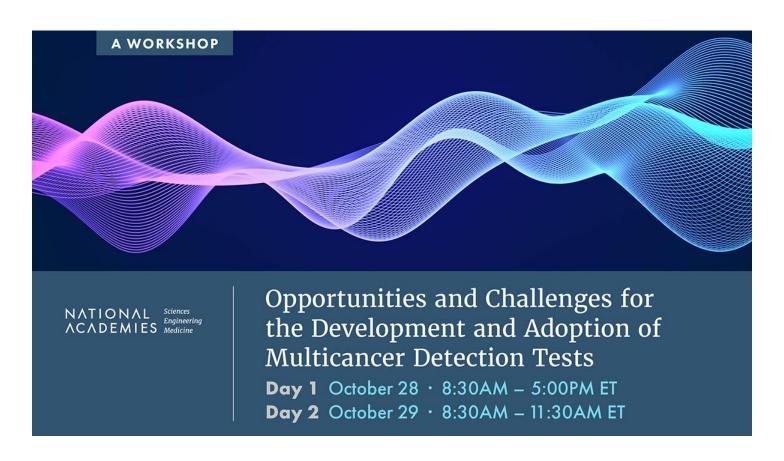


Opportunities and Challenges for the Development and Adoption of Multicancer Detection Tests A National Cancer Policy Forum Workshop



The Keck Center – Room 100 500 5th Street, NW Washington, DC 20001

Link to view the live webcast:

Opportunities and Challenges for the Development and Adoption of Multicancer

Detection Tests: A Workshop | National Academies





October 28, 2024

Dear Colleagues,

Welcome to the National Academies of Sciences, Engineering, and Medicine workshop on *Opportunities and Challenges for the Development and Adoption of Multicancer Detection Tests*, convened by the National Cancer Policy Forum.

This workshop will examine the state of the science for the clinical use of multicancer detection (MCD) testing. Workshop presentations and discussions will provide an overview of multicancer detection tests; examine analytical validation, clinical validation, and clinical utility of MCD tests; provide examples of MCD tests in development and clinical use; explore strategies for implementing MCD tests into clinical practice; and highlight the health system and policy considerations. We will also address patient and community perceptions and perspectives on MCD tests. We hope that this workshop will critically evaluate the current state and future potential of MCD testing, addressing its clinical utility, challenges, and implications for cancer care, research, and policy.

We welcome your involvement in the workshop. Please use the microphones in the room or the chat box on our website to ask questions, and please mention your name and affiliation. The proceedings of the workshop will be published by the National Academies Press and may incorporate your comments and ideas. Archived presentations and videos from the workshop will also be available on the website.

We look forward to your involvement in this workshop.

Sincerely,

Beth Y. Karlan, MD
Nancy Marks Endowed Chair in
Women's Health Research
Vice Chair and Professor
Department of Obstetrics and Gynecology
Director
Cancer Population Genetics
Jonsson Comprehensive Cancer Center
University of California, Los Angeles

Lawrence N. Shulman, MD, MACP, FASCO Professor of Medicine Associate Director Special Projects Director Center for Global Cancer Medicine Penn Center for Cancer Care Innovation Abramson Cancer Center University of Pennsylvania



Opportunities and Challenges for the Development and Adoption of Multicancer Detection Tests: A Workshop October 28-29, 2024

National Cancer Policy Forum

Workshop Website

Keck Center Room 100 500 Fifth Street, NW Washington, DC 20001



WORKSHOP AGENDA

MONDAY, OCTOBER 28, 2024 8:30 am to 5:00 pm ET		
8:00 am	Breakfast and Registration (30 minutes)	
8:30 am	Welcome and Introductory Remarks (30 minutes) Planning Committee Co-chairs: Beth Karlan, University of California, Los Angeles Lawrence Shulman, University of Pennsylvania	
9:00 am	Session 1: Overview of Multicancer Detection Testing (1 hour, 45 minutes) Co-Moderators: Beth Karlan, University of California, Los Angeles Lawrence Shulman, University of Pennsylvania	
	Session Objectives • Highlight the rationale, challenges, and opportunities for MCD testing to improve outcomes for patients with cancer.	
	 Keynote Presentation: How Much Do You Want to Know? The Peril and Promise of an MCD-Driven Future (20 minutes) W. Kimryn Rathmell, National Cancer Institute; presented by Philip Castle, National Cancer Institute 	
	 History of Cancer Early Detection Studies (15 minutes) Robert Smith, American Cancer Society 	
	 How Multicancer Detection Testing Works (15 minutes) William Grady, Fred Hutchinson Cancer Center 	
	 Panel Discussion (55 minutes) Include Speakers and: Cheryl Ivey Green, First Baptist Church of South Richmond Jody Hoyos, Prevent Cancer Foundation Sue Friedman, Facing Our Risk of Cancer Empowered (participating virtually) Christos Patriotis, National Cancer Institute 	



10:45 am	Break (15 minutes)
11:00 am	Session 2: MCD Test Validation (1 hour, 30 minutes) Co-Moderators: Ruth Etzioni, Fred Hutchinson Cancer Center Beth Karlan, University of California, Los Angeles
	 Session Objectives To examine analytical validation, clinical validation, and clinical utility of MCD tests, as well as challenges of and strategies for assessing the clinical utility and effectiveness of MCD tests (e.g., improved patient outcomes; reduced cancer mortality). Discuss research gaps and opportunities to build the evidence base.
	Diagnostic Performance: The Many Faces of Screening Test Sensitivity (10 minutes) • Ruth Etzioni, Fred Hutchinson Cancer Center
	Clinical Trials for Evaluating the Mortality Benefits of MCD Testing (10 minutes) • Hormuzd Katki, National Cancer Institute
	 Alternative Endpoints for MCD Clinical Trials (10 minutes) Hilary Robbins, International Agency for Research on Cancer (participating virtually)
	Addressing the Gap between Performance and Outcomes in the Absence of MCD Randomized Trials (10 minutes) • Jane Lange, Cancer Early Detection Advanced Research Center (CEDAR), Oregon Health and Science University
	Panel Discussion (50 minutes) Include Speakers and: • Philip Castle, National Cancer Institute
12:30 pm	Lunch (1 hour)
1:30 pm	Session 3: Examples of MCD Tests in Development and Clinical Use (1 hour, 20 minutes) Co-Moderators: Philip Castle, National Cancer Institute Lawrence Shulman, University of Pennsylvania
	Session Objectives • To explore the development and clinical use of MCD tests
	Overview of MCD Tests in Development and Clinical Practice (15 minutes) • Wendy Rubinstein, National Cancer Institute
	Discussion of Evidence: Industry Perspective (65 minutes) Include Speakers and: • Tomasz Beer, Exact Sciences • Craig Eagle, Guardant Health • Eric Klein, GRAIL



2:50 pm	Break (15 minutes)
3:05 pm	Session 4: Strategies for Implementing MCD Tests into Clinical Practice (1 hour, 55 minutes) Co-Moderators: Elena Martínez, University of California, San Diego Chanita Hughes-Halbert, University of Southern California
	 Session Objectives To examine the impact of MCD tests on the landscape of cancer screening, detection, diagnosis, and treatment, as well as considerations for follow-up patient care.
	Primary Care Perspective (10 minutes) • Richard Hoffman, University of Iowa
	Radiology Perspective (10 minutes) • Stella Kang, New York University Langone Health
	Oncology Care Perspective (10 minutes) • Deborah Schrag, Memorial Sloan Kettering Cancer Center
	Health Care Delivery System Perspective (10 minutes) • Nancy Keating, Harvard Medical School and Brigham and Women's Hospital
	 Implementation Sciences Perspective (10 minutes) Ora Gordon, Saint John's Cancer Institute and Providence Health
	Guideline Development Perspective (10 minutes) • Alex Krist, Virginia Commonwealth University
	 Panel Discussion (55 minutes) Include Speakers and: Ronald Myers, Thomas Jefferson University Chyke Doubeni, The Ohio State University
5:00 pm	Adjourn and Reception



	TUESDAY, OCTOBER 29, 2024 8:30 am to 11:30 am ET
8:00 am	Breakfast and Registration (30 minutes)
8:30 am	Session 5: Health System and Policy Considerations (1 hour, 30 minutes) Co-Moderators: Etta Pisano, American College of Radiology Robert Winn, Massey Comprehensive Cancer Center, Virginia Commonwealth University Session Objectives • To understand policy considerations related to MCD tests' impact on cancer care, patient outcomes, and health equity. Health Equity Considerations with MCD Testing (20 minutes) • Carmen Guerra, Penn Medicine, University of Pennsylvania • Rachel Issaka, Fred Hutchinson Cancer Center Health Economic Considerations (20 minutes) • Ya-Chen Tina Shih, University of California, Los Angeles • Scott Ramsey, Fred Hutchinson Cancer Center Health Insurance and Coverage Considerations (20 minutes) • Jill Hagenkord, Optum Genomics • Kathryn Phillips, University of California, San Francisco
10:00 am	Panel Discussion (30 minutes) Break (15 minutes)
10:15 am	Session 6: Wrap Up Discussion (1 hour, 15 minutes) Co-Moderators: Beth Karlan, University of California, Los Angeles Lawrence Shulman, University of Pennsylvania Session 1: Beth Karlan and Lawrence Shulman Session 2: Ruth Etzioni (participating virtually) and Beth Karlan Session 3: Lawrence Shulman Session 4: Elena Martínez and Chanita Hughes-Halbert Session 5: Etta Pisano and Robert Winn
11:30 am	Adjourn



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Planning Committee Roster

Beth Y. Karlan, MD (Co-Chair)

Nancy Marks Endowed Chair in
Women's Health Research
Vice Chair and Professor
Department of Obstetrics and Gynecology
Director
Cancer Population Genetics
Jonsson Comprehensive Cancer Center
University of California, Los Angeles

Lawrence N. Shulman, MD, MACP, FASCO

(Co-Chair)
Professor of Medicine
Associate Director
Special Projects
Director
Center for Global Cancer Medicine
Penn Center for Cancer Care Innovation
Abramson Cancer Center
University of Pennsylvania

Justin E. Bekelman, MD

Chief Executive Officer Daymark Health Professor University of Pennsylvania

Philip E. Castle, PhD

Director, Division of Cancer Prevention Senior Investigator, Division of Cancer Epidemiology and Genetics National Cancer Institute

Ruth Etzioni, PhD

Professor, Biostatistics Program, Public Health Sciences Division Fred Hutch Cancer Center Affiliate Professor, Biostatistics Affiliate Professor, Health Services School of Public Health University of Washington

Chanita Hughes-Halbert, PhD

Vice Chair for Research and Professor Department of Population and Public Health Sciences Dr. Arthur and Priscilla Ulene Chair in Women's Cancer Keck School of Medicine Associate Director for Cancer Equity Norris Comprehensive Cancer Center University of Southern California

Elena Martínez, PhD

Sam M. Walton Endowed Chair for Cancer Research Professor Herbert Wertheim School of Public Health and Human Longevity Science Associate Director Population Sciences, Disparities, and Community Engagement Moores Cancer Center University of California, San Diego

Etta D. Pisano, MD

Chief Research Officer
American College of Radiology
Senior Portfolio Lead
Advancing Clinical Trials Readiness (ACTR)
Initiative
Advanced Research Projects Agency for Health
(ARPA-H)

Robert A. Winn, MD

Director

Massey Comprehensive Cancer Center
Senior Associate Dean for Cancer Innovation
Professor of Pulmonary Disease and
Critical Care Medicine
Lipman Chair in Oncology
Virginia Commonwealth University
School of Medicine
President
Association of American Cancer Institutes



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Speaker, Panelist, and Moderator Roster

Tomasz Beer, MD

Vice President & Chief Medical Officer Multi-Cancer Early Detection (MCED) Exact Sciences Corporation

Justin E. Bekelman, MD

Chief Executive Officer Daymark Health Professor University of Pennsylvania

Philip E. Castle, PhD, MPH

Director, Division of Cancer Prevention Senior Investigator, Division of Cancer Epidemiology and Genetics National Cancer Institute

Chyke Doubeni, MD, MPH

Professor of Family Medicine Klotz Chair in Cancer Research Chief Health Equity Officer The Ohio State University Wexner Medical Center Associate Director Comprehensive Cancer Center Director for the Center for Health Equity

Craige Eagle, MD

Global Chief Medical Officer Guardant Health

Ruth Etzioni, PhD

Professor, Biostatistics Program, Public Health Sciences Division Fred Hutchinson Cancer Center Affiliate Professor, Biostatistics Affiliate Professor, Health Services School of Public Health University of Washington

Susan Friedman, DVM

Executive Director Facing Our Risk of Cancer Empowered (FORCE)

Ora Karp Gordon, MD, MS, FACMG

Executive Medical Director of Cancer Services
Saint John's Cancer Institute & Disney Family Cancer
Center, Providence Health
Clinical Director, Providence Population Genomics
Program
Professor of Genetics
Saint John's Cancer Institute

William Grady, MD, AGAF

Roger Haggitt Professor of Medicine Translational Science and Therapeutics Division Fred Hutchinson Cancer Center; and Gastroenterology Division, University of Washington School of Medicine

Cheryl Ivey Green, DMin, MDiv

Executive Minister
First Baptist Church of South Richmond
Senior Legislative Assistant
Commonwealth of Virginia House of Delegates

Carmen E. Guerra, MD, MSCE, FACP

Ruth C. and Raymond G. Perelman Professor Vice Chair of Diversity and Inclusion Department of Medicine Associate Director of Diversity and Outreach Abramson Cancer Center Raymond and Ruth Perelman School of Medicine University of Pennsylvania

Jill Hagenkord, MD

Chief Medical Officer Optum Genomics

Richard M. Hoffman, MD, MPH

Emeritus Professor of Medicine University of Iowa Carver College of Medicine

Jody Hoyos, MHA

Chief Executive Officer Prevent Cancer Foundation



Chanita Hughes-Halbert, PhD

Vice Chair for Research and Professor Department of Population and Public Health Sciences Dr. Arthur and Priscilla Ulene Chair in Women's Cancer

Women's Cancer Keck School of Medicine Associate Director for Cancer Equity Norris Comprehensive Cancer Center University of Southern California

Rachel Issaka, MD, MAS

Kathryn Surace-Smith Endowed Chair in Health Equity Research Associate Professor, Public Health Sciences & Clinical Research Divisions Associate Professor, Division of Gastroenterology & Hepatology Director, Population Health Colorectal Cancer Screening Program Fred Hutchinson Cancer Center

Stella Kang, MDAssociate Chair of Population Health Imaging &

Outcomes Associate Professor, Department of Radiology Associate Professor, Department of Population Health New York University Langone Health

Beth Y. Karlan, MD

Nancy Marks Endowed Chair in Women's Health Research Vice Chair and Professor Department of Obstetrics and Gynecology Director Cancer Population Genetics Jonsson Comprehensive Cancer Center University of California, Los Angeles

Hormuzd Katki, PhD

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Nancy L. Keating, MD, MPH

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Eric A. Klein, MD

Distinguished Scientist GRAIL, Inc Emeritus Andrew C. Novick Distinguished Chair Glickman Urological and Kidney Institute Professor of Surgery Cleveland Clinic Lerner College of Medicine

Alex Krist, MD, MPH

Director
Virginia Ambulatory Care Outcomes Research Network
(ACORN)
Professor of Family Medicine
Virginia Commonwealth University

Jane M. Lange, PhD

Staff Scientist
Cancer Early Detection Advanced Research Center
(CEDAR)
Oregon Health and Science University

Elena Martínez, PhD, MPH

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Ronald E. Myers, DSW, PhD, FSBM

Professor and Director Center for Health Decisions Sidney Kimmel Comprehensive Cancer Center Thomas Jefferson University

Christos Patriotis, PhD, MsC

Program Officer Cancer Biomarkers Research Branch Division of Cancer Prevention National Cancer Institute



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Professor of Health Economics and
Health Services Research
Department of Clinical Pharmacy
School of Pharmacy
Director/Founder
Center for Translational and Policy Research on
Precision Medicine (TRANSPERS)
Member
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W. Kimryn Rathmell, MD, PhD

Director National Cancer Institute National Institutes of Health

Hilary A. Robbins, PhD

Joint Lead Risk Assessment and Early Detection Team Scientist Genomic Epidemiology Branch International Agency for Research on Cancer World Health Organization

Wendy Rubinstein, MD, PhD

Senior Scientific Officer Division of Cancer Prevention National Cancer Institute

Deborah Schrag, MD, MPH

George J. Bosl Chair in Medicine Member Memorial Sloan Kettering Cancer Center Professor of Medicine Weill Cornell Medical College

Ya-Chen Tina Shih, PhD

Director

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Robert A. Winn, MD

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Massey Comprehensive Cancer Center
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Professor of Pulmonary Disease and
Critical Care Medicine
Lipman Chair in Oncology
Virginia Commonwealth University
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Speaker, Panelist, Moderator, and Planning Committee Biosketches



Tomasz Beer, MD Exact Sciences

Tomasz (Tom) Beer, MD, serves as VP & Chief Medical Officer for Multi-Cancer Early Detection (MCED) at Exact Sciences Corporation. Dr. Beer oversees the clinical development of the company's Multi-Cancer Early Detection test, a program that aims to greatly expand the reach of cancer screening beyond the handful of cancers that we screen for today. Prior to joining Exact Sciences Dr. Beer served as Chief Medical Officer for the Center for Early Detection Advanced Research (CEDAR) within the Knight Cancer Institute at Oregon Health & Science University where he also served as Deputy Cancer Center Director. At CEDAR, Dr. Beer oversaw collaborations between clinicians, engineers, and cancer biologists to advance discoveries in early detection of cancer.

While providing scientific and medical leadership to Exact Sciences' innovative multi-cancer early detection program, Dr. Beer also maintains an adjunct faculty appointment at the Oregon Health & Science University (OHSU) Knight Cancer Institute.



Justin E. Bekelman, MD Daymark Health

Justin E. Bekelman, M.D., is cofounder and Chief Executive Officer of Daymark Health, a pioneering oncology value-based care company. Dr. Bekelman is an internationally recognized oncologist and innovator who has devoted his career to improving the health and lives of patients with cancer. Dr. Bekelman previously led the Penn Medicine's Center for Cancer Care Innovation at Abramson Cancer Center and is the Marietta and Howard Stoeckel Professor at the University of Pennsylvania School of Medicine. As one of the foremost leaders in cancer care delivery science, he has made seminal discoveries that have changed the practice of cancer care. Dr. Bekelman is an elected member of the American Society for Clinical Investigation and previously served as a member of the National Cancer Policy Forum of the National Academies of Science, Engineering, and Medicine. He has

authored nearly 200 research articles and led large scale research programs funded by the US National Cancer Institute and the Patient Centered Outcomes Research Institute. He is a board-certified radiation oncologist and practicing physician.

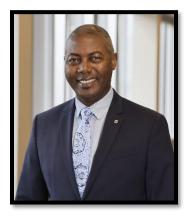
Dr. Bekelman's experience spans academia, industry, and government service. Previously, he was a strategy consultant at the Kalchas Group, a Bain McKinsey spinoff in London and New York. Dr. Bekelman served as Special Assistant to the Under Secretary of Defense in the US Department of Defense. Dr. Bekelman completed his undergraduate studies at Princeton University in the School of Public and International Affairs and his medical training at Yale University, Johns Hopkins, and Memorial Sloan Kettering Cancer Center.





Phillip E. Castle, PhD, MPH National Cancer Institute

Philip E. Castle, PhD, MPH, is the Director of the Division of Cancer Prevention (DCP) and a Senior, Tenured Investigator in the Division of Cancer Epidemiology and Genetics (DCEG) at the U.S. National Cancer Institute (NCI) (Rockville, MD, USA). Previously, he was a Tenured Professor in the Department of Epidemiology and Population Health at Albert Einstein College of Medicine (Bronx, NY, USA) (2014-20), Chief Scientific Officer of the American Society for Clinical Pathology (ASCP) (2011-2), and Senior, Tenured Investigator (2010) and Tenure-Track Investigator (2003-10) in DCEG/NCI. Dr. Castle was a Cancer Prevention Fellow in DCP/NCI (1999-2002). Dr. Castle received a Ph.D. in Biophysics (1995) and M.P.H. in Epidemiology (2000) from the Johns Hopkins University (Baltimore, MD, USA) and a B.S. in Biological Sciences from Carnegie-Mellon University (1986).



Chyke Doubeni, MD, MPH The Ohio State University

Chyke Doubeni, MD, MPH, is professor of family medicine, and an academic healthcare leader with a current role of Chief Health Equity Officer and the lead for diversity, equity, and inclusion programs/policies at The Ohio State University Wexner Medical Center. He is the Klotz Chair in Cancer Research and serves as associate director in the Comprehensive Cancer Center and Director for the Center for Health Equity. He is a clinical epidemiologist with a specific research focus on improving the care continuum related to prevention and screening, with colorectal cancer (CRC) as a model. He has led major studies (h-index >70) showing harmful variations in the quality of cancer screening, lack of appropriate follow-up care for abnormal screening tests, and health system and societal barriers that lead to inequitable care. That work has informed guidelines and contributed to legislation revising sections of the Affordable Care Act for

more comprehensive coverage of colon cancer screening for the 190 million eligible persons nationally. He authors colorectal cancer screening topics on UpToDate. He serves on major US panels, including the National Cancer Institute Board of Scientific Advisors, National Cancer Advisory Board Working Group, President's Cancer Panel subcommittee and US Preventive Services Task Force (USPSTF, 2017-2021). At the USPSTF, he chaired the Race and Racism Workgroup to transform the recommendation development process through a health equity framework. Dr. Doubeni received the Presidential Early Career Award for Scientists and Engineers in 2011.



Craig Eagle, MDGuardant Health

Craig Eagle, MD, currently serves as Guardant Health's chief medical officer. Prior to joining Guardant Health, Dr. Eagle served as Vice President of Medical Affairs Oncology for Genentech, where he oversaw the medical programs across the oncology portfolio and developed innovative cancer trials and strategies in personalized health care.

Prior to Genentech, Dr. Eagle has held several positions in the U.S. and internationally over his 19-year career at Pfizer including global head of the Oncology Medical and Outcomes Group. In this role, he oversaw the worldwide medical programs and development of numerous commercially successful drugs. Dr. Eagle currently serves on the Board of Directors for Generex Biotechnology and NuGenerex Immuno-Oncology.

Dr. Eagle attended medical school at the University of New South Wales in Sydney, Australia and received his general internist training at Royal North Shore Hospital in Sydney. Dr. Eagle completed his specialist training in hemato-oncology and laboratory hematology at Royal Prince Alfred Hospital in Sydney and was granted Fellowship in the Royal Australasian College of Physicians (FRACP) and the Royal College of Pathologists Australasia (FRCPA).





Ruth Etzioni, PhD Fred Hutchinson Cancer Center

Ruth Etzioni, PhD, is a full member in biostatistics at the Fred Hutch Cancer Center where she holds the Rosalie and Harold Rae Brown endowed chair. Her research program focuses on statistical and computer modeling for evidence generation to support cancer control policies. She has been principal investigator of the prostate cancer modeling group for the Cancer Intervention and Surveillance Network since its inception and was the original planner of the Fred Hutch model. Her studies have clarified the role of prostate cancer screening in US prostate cancer mortality declines, generated well-founded estimates of overdiagnosis in prostate cancer screening, resolved apparent discrepancies across cancer screening trials, identified natural history differences between Black men and the general population, and informed prostate cancer screening

recommendations. She is a member of three national prostate cancer screening guidelines panels. She is a leader in methods to appropriately estimate overdiagnosis in cancer screening. More recently she has been developing models and methods to address evidence gaps regarding the impact of new multi-cancer screening tests. Dr Etzioni is a past chair of the Health Policy Statistics Section of the American Statistical Association and lead author of the Springer textbook, "Statistics for Health Data Science: An Organic Approach." In 2022 she received an Outstanding Investigator Award from the National Cancer Institute to develop models and methods for assessing the impact of novel cancer diagnostics including biomarkers and imaging tests.



Susan Friedman, DVM Facing Our Risk of Cancer Empowered (FORCE)

Susan Friedman, DVM, was practicing small-animal veterinary medicine when she diagnosed with breast cancer at age 33, and afterwards learned she carried an inherited BRCA2 mutation. After treatment, she founded the nonprofit organization "Facing Our Risk of Cancer Empowered" or FORCE in 1999 to help people and families facing hereditary cancer find support and credible and relevant information and research in plain language. In 2023, she was diagnosed with poorly-differentiated thyroid cancer, likely caused by the aggressive radiation she received to treat her breast cancer.

As Executive Director, Sue has over 25 years of experience directing FORCE's education, research, and advocacy programs. As an advocate, Sue has a passion for facilitating

informed decision-making, improving health communication between patients and their healthcare teams and increasing health literacy in society as a whole.



Ora Karp Gordon, MD, MS, FACMGSaint John's Cancer Institute and Providence Health

Ora Gordon, MD, MS, FACMG, is the Executive Director of Cancer Services for Providence Health, Los Angeles. Regionally she is the Medical Director of the Center for Clinical Genetics & Genomics and has served as chair of the Commission on Cancer's Integrated Network Cancer Program for Providence Southern California for the past six years. Her clinical practice and research are focused on hereditary risk assessment and cancer prevention and early detection.

For the 50-hospital health system, Dr. Gordon is the Clinical Director of Providence's Population Genomics Program. In this role, Dr. Gordon leads system-wide clinical and research protocols for population genomic medicine and is principal investigator for the Geno4Me: Genomic Medicine for Everyone study and implementation studies of DNA

multicancer early detection blood tests for high-risk patients. She is a professor of genetics at Providence Saint John's Cancer Institute and clinical professor of medicine at UCLA Geffen School of Medicine.



Dr. Gordon graduated from Tulane University and earned her Master of Science and medical degrees from the University of California, Irvine. She completed her internship and residency at the University of California, Los Angeles, where she also completed a fellowship in genetics and is board certified in internal medicine and medical genetics. Passionate about the holistic approach to medicine, she more recently completed a fellowship in integrative medicine at the University of Arizona's Center for Integrative Medicine to expand options for primary prevention, quality of life for patients who are at risk for and survivors of cancer, and research on mind-body therapies and nutrition science.

In addition to her research publications, she also has co-authored an award-winning book for women facing genetic risk for breast or ovarian cancer, called *Positive Results: Making the Best Decisions When at High Risk for Breast and Ovarian Cancer*.



William Grady, MD, AGAF Fred Hutchinson Cancer Center

William Grady, MD, AGAF, is a molecular biologist and board-certified gastroenterologist. He is an independent NIH funded PI with >20 years of experience in translational research related to gastrointestinal cancer. He is a Co-Head of the GI Cancer Program of the Fred Hutchinson Cancer Center (FHCC)/University of Washington Comprehensive Cancer Center and the Director of Translational Research for the Gastroenterology Division at the University of Washington. Furthermore, Dr. Grady, in his role of a practicing gastroenterologist, manages patients with a variety of gastrointestinal diseases including Barretts esophagus, colon polyps and gastrointestinal cancer. He is the Medical Director of the GI Cancer Prevention Program Clinic at the Fred Hutchinson Cancer

Center, which specializes in the care of individuals who have cancer family syndromes, including Lynch syndrome and polyposis syndromes. He was one of the PIs in the Barretts Esophagus Translational Research Network (BETRNet). He is also the contact PI of a multi-PI Early Detection Research Network (NCI) Biomarker Characterization Center. He is actively involved in numerous translational and clinical trials of emerging biomarker assays for gastrointestinal cancer and has an active program developing novel biomarker assays for liver, colorectal and esophageal adenocarcinomas. His NCI funded projects assess the role of epigenetic alterations as risk markers and biomarkers for esophageal and colon cancer, respectively and of the role of genetic and epigenetic alterations in carcinogenesis. He is conducting studies that: 1) determine the role of the genetic and epigenetic alterations in the initiation and progression of colorectal and esophageal cancer; 2) determine novel treatment approaches to colorectal cancer prevention, 3) identify molecular factors that influence the risk for colorectal cancer; 4) develop biomarkers for colorectal cancer, esophageal cancer, and hepatocellular carcinoma; 5) assess the role of age related mechanisms in gastrointestinal cancer formation; and 6) investigate tissue microenvironment factors that affect cancer initiation and progression.



Cheryl Ivey Green, DMin, MDiv First Baptist Church of South Richmond

Cheryl Ivey Green, DMin, MDiv, blends ministry and the work of the community. She currently serves as Executive Minister, at the First Baptist Church of South Richmond. She has served as Senior Assistant to the Mayor of the City of Richmond and in the Virginia House of Delegates as Chief of Staff in the Virginia House of Delegates and Executive Director, Virginia Legislative Black Caucus Foundation.

Dr. Green is committed to serving the community. She continues to serve on various Boards and with non-profit organizations. She has served on the Virginia Department of Behavioral Health and Developmental Services Board and during her tenure, served as

chair. As a continuation of her work in the field of mental health, she was appointed by the Mayor of the City of Richmond to the Richmond Behavioral Health Authority, where she was reappointed for a third term, and served as Board Chair. She is past President of the Baptist Minister's Conference of Richmond & Vicinity. Dr. Green was appointed to the Virginia African American Advisory Board of Virginia, where she continues to serve. She served as the Board's inaugural Vice-



Chair and three terms as Chair. She serves on the Board of The Balm in Gilead, a nonprofit which addresses HIV and health disparities in the African American community and the Baptist General Convention Board of Directors.

Dr. Green holds a Bachelor of Science degree in Mathematics from Virginia Commonwealth University, a Master of Divinity degree from Virginia Union's Samuel Dewitt Proctor School of Theology and a Doctor of Ministry from United Theological Seminary in Dayton Ohio.



Carmen E. Guerra, MD, MSCE, FACP Penn Medicine, University of Pennsylvania

Carmen Guerra, MD MSCE, FACP, is the Ruth C. and Raymond G. Perelman Professor of Medicine at the Perelman School of Medicine at the University of Pennsylvania. Dr. Guerra is a general internist trained in epidemiology and cancer equity researcher. She is also the Vice Chair of Diversity and Inclusion for the Department of Medicine and the Associate Director of Diversity and Outreach for the Abramson Cancer Center.

Dr. Guerra's research has focused on developing and evaluating interventions to increase the participation of underserved populations in cancer screening programs and clinical trials. In addition, Dr. Guerra co-chaired two the American Society of Clinical Oncology-Association of Community Cancer Centers workgroups that developed "Just Ask," the first unconscious bias training specifically for cancer research teams; an equity, diversity and inclusion site self-assessment for cancer research teams to identify and adopt best

practices for recruiting, enrolling and retaining diverse populations in cancer clinical trials; and the ASCO-ACCC joint research statement Increasing Racial and Ethnic Diversity in Cancer Clinical Trials. She also is member of the American Cancer Society (ACS) Clinical Guidelines Development group and an author of the ACS colorectal, cervical, lung and HPV clinical practice guidelines which widely influence clinical practice. Dr. Guerra is also a member of the National Academies of Science, Engineering and Medicine committee on the Use of Race and Ethnicity in Biomedical Research scheduled to be released in October, 2024.



Jill Hagenkord, MD Optum Genomics

Jill Hagenkord, MD, is the Chief Medical Officer of Optum Genomics at United Health Group. Dr. Hagenkord is a board-certified pathologist with subspecialty boards in molecular genetic pathology and an additional fellowship in pathology/oncology informatics. She specializes in the development, validation, and implementation of novel health technologies as well as coding, coverage, and reimbursement issues for novel tests. Prior to joining Optum, she was the Chief Medical Officer of several Silicon Valley genomic companies, including Invitae and 23 and Me. She began her career as the Director of Molecular Pathology and Assistant Professor of Pathology at Creighton University School of Medicine. She lives in suburban Des Moines with her teenage sons, two dogs, two and cats.





Richard M. Hoffman, MD, MPH University of Iowa

Richard M. Hoffman, MD, MPH, is an emeritus professor of medicine at the University of Iowa Carver College of Medicine. His previous positions at Iowa included being the Director, Division of General Internal Medicine, and co-leader of the Cancer Epidemiology and Population Science program at the Holden Comprehensive Cancer Center. He is currently a member of the American Cancer Society's Guideline Development Group. He received his medical degree from the Johns Hopkins University School of Medicine, completed an internal medicine residency at the Oregon Health Sciences University, and received an MPH degree from the University of Washington. Much of his research and clinical work has focused on cancer screening.



Jody Hoyos, MHAPrevent Cancer Foundation

Jody Hoyos, MHA, is Chief Executive Officer of the Prevent Cancer Foundation®, the only U.S.-based nonprofit organization solely dedicated to cancer prevention and early detection. Since taking the helm as CEO, Ms. Hoyos has led the Foundation in revitalizing its mission and vision and creating a more strategic direction for the Foundation's next decade and beyond. As CEO, she has become the Foundation's lead spokesperson, championing the 2023 launch of the Foundation's signature campaign, <u>Early Detection = Better Outcomes.</u>

Ms. Hoyos joined the Foundation as Senior Vice President in December 2018 and was promoted to Executive Vice President and COO in 2020 before becoming CEO in December 2022. In these roles, she prioritized investment in the Foundation's

infrastructure and technology; become an issue expert and industry-wide leader on a patient-centered approach to multicancer detection testing; and guided her team through remote work and the extraordinary challenges of the COVID-19 pandemic.

Prior to joining the Foundation, Ms. Hoyos served as the Vice President of Membership and Operations at the Washington, D.C.-based Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). AWHONN's mission is to improve and promote the health of women and newborns, and they strive to strengthen the nursing profession for 350,000 registered nurses working in women's health, obstetric and neonatal nursing nationwide.

With 25 years in the health care environment—including ten years in health care management consulting and 15 years in the nonprofit sector— Ms. Hoyos is a highly skilled executive leader. She previously held management consulting positions with Arthur Andersen, LLP as well as KPMG/Bearing Point. She has also worked as an associate at the Washington, D.C.-based Health Care Advisory Board. Throughout her career, Ms. Hoyos has developed the teams and infrastructure to create numerous programs and partnerships dedicated to improving health.

Ms. Hoyos earned a Bachelor of Business Administration degree from The George Washington University and a master's degree in healthcare administration from the University of North Carolina at Chapel Hill.





Chanita Hughes-Halbert, PhD University of Southern California

The goal of Dr. Hughes-Halbert's research program is to improve the precision of multilevel strategies for achieving health equity by identifying diverse determinants of minority health and cancer health disparities and by translating this information into sustainable interventions in clinic and community-based settings to improve cancer outcomes and chronic disease management in disparity populations in local and regional geographic areas. Dr. Hughes-Halbert is a nationally recognized expert in cancer prevention and control among diverse populations and her research is supported by numerous grants from the National Cancer Institute, the National Institutes on Minority Health and Health Disparities, and the Veteran's Affairs Medicine Center. Previously, she was a member of the

Board of Scientific Advisors at the National Cancer Institute and the National Human Genome Research Institute Advisory Council. Dr. Hughes-Halbert is a past recipient of the AACR Distinguished Lecture in Cancer Health Disparities Award and is a member of the National Academy of Medicine.



Rachel Issaka, MD, MAS Fred Hutchinson Cancer Center

Rachel Issaka, MD, MAS, is a Gastroenterologist, Associate Professor, and the Kathryn Surace-Smith Endowed Chair in Health Equity Research at the Fred Hutchinson Cancer Center (FHCC) and the University of Washington (UW). She is the Director of the FHCC/UW Medicine Population Health Colorectal Cancer Screening Program. Dr. Issaka's research focuses on improving outcomes across the colorectal cancer care continuum, including equitable access to screening and follow-up of non-invasive screening tests. Her work has been funded by the National Institutes of Health, the Centers for Medicare and Medicaid Services and the American College of Gastroenterology.

Dr. Issaka has contributed to national medical practice guidelines for the Centers for Disease Control (CDC), the National Comprehensive Cancer Network (NCCN), and the

National Colorectal Cancer Roundtable (NCCRT). She has also served as an advisor to the President's Cancer Panel and the COVID-19 Prevention Network, a group formed to provide oversight for National Institutes of Health funded COVID-19 vaccine trials.

Dr. Issaka completed her gastroenterology fellowship at the University of California, San Francisco where she also earned a master's in clinical research. She completed her internal medicine residency at Northwestern University Feinberg School of Medicine, where she served as chief resident and obtained her medical degree from the University of Michigan Medical School.



Stella Kang, MD New York University Langone Health

Stella Kang, MD, is Tenured Associate Professor of Radiology and Population Health at NYU Langone Health, where she practices abdominal radiology and serves as Associate Chair of Population Health Imaging and Outcomes. As an NIH-funded principal investigator, Dr. Kang applies methods of comparative effectiveness research, economic evaluation, and health care delivery science for use of diagnostic technologies. She completed her medical degree at Weill Cornell Medical College, a diagnostic radiology residency at NYU, where she also served as chief resident, and an abdominal imaging fellowship at Massachusetts General Hospital. Dr. Kang is currently Chair of the American College of Radiology (ACR) Steering Committee on Incidental Findings. She has also developed national educational programs for healthcare innovation and delivery for the ACR and Radiological Society of North America, and currently serves on the editorial boards of several imaging journals.





Beth Y. Karlan, MD University of California, Los Angeles

Beth Y. Karlan, M.D. is Professor and Vice Chair in the Department of Obstetrics and Gynecology at the David Geffen School of Medicine at UCLA. She holds the Nancy Marks endowed chair in Women's Health Research and is the Director of Cancer Population Genetics at the UCLA Jonsson Comprehensive Cancer Center. Her research focuses on early detection and precision prevention for ovarian and other gynecologic malignancies as well as on identifying biomarkers to personalize treatments and improve patient outcomes. Recognized as an authority on inherited cancer risk, Dr. Karlan has contributed to the development of treatment guidelines and novel therapies for these patients. To date, her scholarly work has resulted in more than 500 peer-reviewed research publications.

Dr. Karlan is an American Cancer Society Clinical Research Professor, a member of the National Academy of Medicine, and the National Cancer Policy Forum. She has served in many national leadership roles including president of the Society of Gynecologic Oncology, member of the National Cancer Advisory Board, and editor-inchief of the scientific journal, *Gynecologic Oncology*. Her contributions have been recognized by her peers with multiple awards including a Lifetime Achievement Award from the International Society of Gynecologic Cancer.



Hormuzd Katki, PhDNational Cancer Institute

Hormuzd Katki, PhD, is a Senior Investigator in the Biostatistics Branch of the US National Cancer Institute, doing research on all aspects of cancer screening and early detection. He is a member of the trans-NCI Tiger Team to propose a randomized controlled screening trial of multicancer detection (MCD) tests. He leads a team to evaluate methodological issues and potential designs for an MCD screening trial. He is also working to propose observational studies of MCD test performance in multiple cohorts and is conducting methodologic research on the efficient design of such studies.



Nancy L. Keating, MD, MPH Harvard Medical School and Brigham and Women's Hospital

Nancy L. Keating, MD, MPH, is Professor of Health Care Policy and Medicine at Harvard Medical School and a primary care physician at Brigham and Women's Hospital. She is Program Leader of the Dana-Farber/Harvard Cancer Center's Cancer Care Delivery Research Program.

Dr. Keating's research studies care delivery for individuals with cancer, including access to care, quality of care, and how we pay for and deliver care. She served as currently Clinical Lead of the Evaluation Team for the Center for Medicare and Medicaid Service's Oncology Care Model, an alternate payment and delivery model for oncology practices administering chemotherapy. The evaluation assessed spending, quality of care, health care utilization, and patients' experiences for patients receiving chemotherapy in approximately 200

participating practices compared with non-participating practices. In other work, she is studying the impact of financial integration of oncology practices into systems and hospitals and its impact on care delivery. In ongoing work, she is assessing the reliability and consistency of quality and equity measurement across oncology practices caring for individuals with cancer. Previous work has examined cancer screening in the US, including screening behavior following



changes in guidelines as well as assessing the impact on state breast density notification laws on supplemental breast cancer screening. She has also studied patient, physician, and health system factors contributing to the variations in the intensity of end-of-life care for individuals with advanced cancer and she has studied interventions to improve patients' understanding of the goals of chemotherapy and to improve patients' discussions with their clinicians about their preferences and goals of care.

Dr. Keating received her MD degree from the University of Chicago Pritzker School of Medicine, and her MPH degree from the Harvard TH Chan School of Public Health. In 2022, she was awarded the John M. Eisenberg Award for Career Achievement in Research by the Society of General Internal Medicine. She is an elected member of the American Society for Clinical Investigation and the Association of American Physicians. Dr. Keating has been continuously funded by the National Institutes of Health as principal investigator for more than twenty years. She co-leads a T32 training grant, Training in Oncology Population Sciences, or TOPS. She currently serves as an Associate Editor at the Journal of the National Cancer Institute, a member of the editorial board of Annals of Internal Medicine and the Journal of Geriatric Oncology, and she is member of the National Comprehensive Cancer Center Senior Oncology Guideline Panel.



Eric A. Klein, MD GRAIL

Eric A. Klein, MD, is a Distinguished Scientist at GRAIL. Previously he served as the Andrew C. Novick Distinguished Professor and Chair of the Glickman Urological and Kidney Institute and Lerner College of Medicine of the Cleveland Clinic, where he was also a member of the Department of Cancer Biology of the Cleveland Clinic Lerner Research Institute, the Taussig Cancer Institute, and the Genitourinary Malignancies Program in the Case Comprehensive Cancer Center. Dr. Klein's clinical and research interests focused on prostate cancer with an emphasis on genomics and clinical trials. Most recently his work has focused on the clinical development of multicancer early detection tests. Dr. Klein was a Fellow in the Distinguished Careers Institute at Stanford University in 2022 and joined GRAIL in 2023.



Alex Krist, MD, MPH Virginia Commonwealth University

Alex Krist, MD, MPH, is a Professor of Family Medicine at Virginia Commonwealth University (VCU) in Richmond Virginia and a practicing family physician and teacher at the Fairfax Family Practice residency. He is a director of the Virginia Ambulatory Care Outcomes Research Network (ACORN), a collection of over 500 primary care practices, throughout Virginia that collaborate to do research that matters to primary care. Practices span every health system and represent every primary care structure in the state. He also directs the community engaged research core for the Wright Regional Clinical Translational Science Institute. Through these activities he leads multiple projects with numerous community partners in Central, Eastern, and Northern Virginia to improve access to care, address health equity, improve quality of care, develop policies to address the opioid epidemic, evaluate new cancer screening tests, and conduct pragmatic trials to inform common primary care practices. He is the co-Principal Investigator for the Virginia Hub of the National Cancer Screening Research Network. Dr. Krist is a former member and Chair of the U.S Preventive Services Task Force (2014-2021) and a member of the National

Academies of Sciences, Engineering, and Medicine. He served as a member of the committee on *Implementing High Quality Primary Care* (2016-2019), was the co-chair for the committee on *Achieving Whole Health for Veterans and the Nation* (2020-2023) and is a member of the *Standing Committee on Primary Care* (2023-present).





Jane M. Lange, PhD Cancer Early Detection Advanced Research Center (CEDAR), Oregon Health and Science University

Jane Lange, PhD, is a biostatistician who is currently a staff scientist at Oregon Health Sciences University Knight Cancer Research Foundation Center for Early Detection Research (CEDAR). Previously she worked as a staff scientist at Fred Hutchinson Cancer Research Center working with Dr. Ruth Etzioni, where she contributed to the prostate cancer CISNET group. She received her PhD in biostatistics from the University of Washington in 2014 and completed a post-doctoral fellowship at Group Health Research Institute (GHRI) in Seattle Washington. She has expertise in modeling of chronic diseases, statistical computing, stochastic processes, and cancer epidemiology. Her interests lie in modeling the population health impact of cancer screening, including Multicancer Early Detection Tests.



Elena Martínez, PhD, MPH University of California, San Diego

Elena Martínez, PhD, MPH, is an epidemiologist with expertise in cancer disparities research. She is Professor in the Herbert Wertheim School of Public Health and Human Longevity Science and Associate Director of Population Sciences at UC San Diego's Moores Cancer Center. She holds the Walton Endowed Chair for Cancer Research. Nationally, she has established strong leadership and commitment to the area of cancer health disparities, particularly in relation to Hispanic/Latino populations in the U.S. Dr. Martínez is immediate past President of the American Society for Preventive Oncology. She has served on NCI's Board of Scientific Counselors and Board of Scientific Advisors and was one of 28 members nationally who served on the prestigious Cancer Moonshot Blue Ribbon Panel. She has been continuously funded by NIH as PI/MPI for over 20 years. Currently, she is multiple principal investigator (MPI) of several NIH/NCI-

funded team science research projects that focus on addressing disparities and inequities. These include, among others, the UC San Diego Faculty Institutional Recruitment for Sustainable Transformation (FIRST) award, whose goal is to promote institutional inclusive excellence by hiring a diverse cohort of early-stage faculty in biomedical sciences and the San Diego State University/UC San Diego Cancer Research and Education to Advance HealTh Equity (CREATE) Partnership, which focuses on addressing cancer health disparities through research, research education, and community outreach.



Ronald E. Myers, DSW, PhD, FSBM Thomas Jefferson University

Ronald E. Myers, DSW, PhD, FSBM is currently Professor and Director, Center for Health Decisions, Sidney Kimmel Comprehensive Cancer Center at Thomas Jefferson University. His areas of expertise include patient adherence to cancer screening, diagnostic follow-up of abnormal cancer screening test results, preference-based tailored patient navigation, patient and provider receptivity to multi-cancer early detection, shared decision making in cancer care, and reducing disparities in cancer prevention and control. He has led numerous studies of patient decision making in genetic risk assessment for cancer, colorectal cancer screening, prostate cancer screening and treatment, and lung cancer screening and treatment. Dr. Myers has recently completed a study of patient outreach and shared decision making on lung cancer screening in vulnerable populations funded by a Pennsylvania Department of Health CURE award. In addition, he is leading an American Cancer Society-funded demonstration project that aims to train primary care physicians in

the Commonwealth of Pennsylvania in shared decision making about lung cancer screening. Dr. Myers has also developed a health systems-based learning community approach to implementing effective cancer screening intervention strategies



in clinical practice and in vulnerable populations. As PI on an NCI-funded multi-level implementation science Ro1 study, he is currently leading an effort to operationalize this model to improve shared decision making and increase lung cancer screening in four health systems.



Christos Patriotis, PhD, MsC National Cancer Institute

Christos Patriotis, PhD, MsC, obtained his M.Sc. in Biochemistry from the University of Sofia, Bulgaria, and his Ph.D. in Molecular Biology from the Bulgarian Academy of Sciences. His postdoctoral training focused on T-cell receptor and Toll-like receptor signaling in lymphoid-cell activation in adaptive and innate immune response, as well as on epithelial cancer cell biology. He joined the faculty at Fox Chase Cancer Center in 1994 where his research focused on understanding the mechanisms of breast and ovarian cancer pathogenesis and the identification of biomarkers for their early detection. He developed and characterized animal models of breast and ovarian cancers and conducted transcriptomic and mutational analyses of human and animal-model specimens for the discovery of biomarkers for breast and ovarian cancers. He joined CBRB in March 2007,

where he led the management and coordination of key programs focused on the development of biomarkers for early detection of breast, ovarian and other gynecological cancers, the development of biomarkers to minimize overdiagnosis of indolent cancers, the development of liquid biopsy technologies for early cancer assessment, and the development of bioinformatics tools and statistical models supporting cancer biomarker research.



Kathryn A. Phillips, PhD University of California, San Francisco

Kathryn A. Phillips, PhD, is Professor of Health Economics and Health Services Research at the University of California, San Francisco. She is the Founding Director of the UCSF Center for Translational and Policy Research on Precision Medicine (TRANSPERS), which focuses on developing objective evidence on appropriately implementing precision medicine and other emerging technologies. Her research focuses on insurance coverage, economic value, and building the evidence base, particularly on cancer screening.

Kathryn has published ~200 peer-reviewed articles in major journals (e.g., *JAMA*, *New England Journal of Medicine*, *Science*, *Health Affairs*) and has led grants from the National Institutes of Health as Principal Investigator continuously for 30 years. She is a

standing member of the NAM Roundtable on Genomic Medicine and Precision Health and a current member of the NASEM Strategies to Better Align Investments in Innovations for Therapeutic Development with Disease Burden and Unmet Needs. She serves on an evidence review committee for ICER (Institute for Clinical and Economic Review) and is the Founding Editor-in-Chief of *Health Affairs Scholar – Global and Emerging Health Policies*.



Etta D. Pisano, MD, FACR American College of Radiology

Etta D. Pisano, MD, FACR, is a pioneer in breast imaging research, known for leading landmark clinical research trials, including the Digital Mammography Screening Trial (DMIST) and the ongoing Tomosynthesis Mammographic Imaging Screening Trial (TMIST).

Dr. Pisano led the DMIST, which accrued more than 49,000 women and compared effectiveness of digital mammography to film mammography. Overall, digital and film mammography were found to have similar diagnostic accuracy. But for women under age 50, pre- or peri-menopausal women, and women with dense breasts, digital mammography was found to be superior. The results of this study drastically changed breast cancer screening guidelines and reimbursement.



Dr. Pisano serves as the Study Chair for the TMIST, which compares standard digital mammography (2-D) to digital breast tomosynthesis (3-D) to determine if digital breast tomosynthesis is more effective at reducing advanced breast cancers. The comparison of 2-D vs. 3-D imaging may clarify how breast cancer screening can be better personalized to each woman. TMIST also is creating a large collection of data, images, and biospecimens to inform future clinical research. To date, TMIST has recruited over 106,000 women at 132 sites around the world.

Dr. Pisano is the Chief Research Officer of the American College of Radiology, the first woman to hold this position. She previously served as Chief Science Officer for the American College of Radiology Center for Research and Innovation. In March 2024, Dr. Pisano joined ARPA-H as a Portfolio Lead overseeing the Advancing Clinical Trials Readiness (ACTR) initiative. She also holds adjunct faculty appointments in Radiology at both the University of Pennsylvania and The University of North Carolina at Chapel Hill.



Scott D. Ramsey, MD, PhD Fred Hutchinson Cancer Center

Scott D. Ramsey, MD, PhD, is a general internist and health economist. He is a Professor and Director of the Hutchinson Institute for Cancer Outcomes Research, a multidisciplinary team devoted to cancer outcomes research. Dr. Ramsey is also a Professor in the Schools of Medicine and Pharmacy at the University of Washington.

Trained in Medicine and economics, Dr. Ramsey's research focuses on outcomes research and cancer care delivery. His studies on financial toxicity issues faced by cancer patients are widely cited. He leads the Value in Cancer Care initiative, a statewide quality and cost reporting program aimed at improving oncology care. His other research interest includes cancer care delivery research, pragmatic trial design, cost-effectiveness analysis, and stakeholder engagement.

Dr. Ramsey is co-Chair National Cancer Institute's Cancer Care Delivery Research Steering Committee and a co-chair of SWOG's Cancer Care Delivery Committee. He is past President of the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) and has served on the National Academy of Science's Cancer Policy Forum. He is Co-Principal Investigator for the Coordination and Communications Center of the National Cancer Institute's Cancer Screening Research Network.



W. Kimryn Rathmell, MD, PhD National Cancer Institute

W. Kimryn Rathmell, MD, PhD, began her work as the 17th director of the National Cancer Institute in December 2023. She previously led the Vanderbilt University Medical Center as physician-in-chief and chair of the Department of Medicine.

With a specialty in the research and treatment of complex and hereditary kidney cancers, Dr. Rathmell also focuses on underlying drivers of kidney cancers using genetic, molecular, and cell biology to develop interventions to improve patients' lives. Beyond her research interests, Dr. Rathmell is also a steadfast champion for mentorship and development of early career researchers.

As a result of her dedicated research, Dr. Rathmell is a recipient of the <u>2019 Louisa Nelson</u> Award for Women of Achievement, Vision, and Inspiration, the <u>2019 Eugene P. Schonfeld</u>

Award from the Kidney Cancer Association, and the <u>Paragon Award for Research Excellence from the Doris Duke Foundation</u>. She was a leader of <u>The Cancer Genome Atlas's (TCGA) kidney cancer projects</u> and served as a TCGA analysis working group member across the spectrum of cancers, winning the <u>2020 American Association for Cancer Research</u> Team Science Award.

Dr. Rathmell earned undergraduate degrees in biology and chemistry from the University of Northern Iowa and her Ph.D. in biophysics and M.D. from Stanford University. She completed an internal medicine internship at the University of





Chicago and an internal medicine residency, medical oncology fellowship, and postdoctoral studies at the University of Pennsylvania. In 2022, she completed her Master of Management in Health Care from the Vanderbilt University Owen Graduate School of Management.



Hilary A. Robbins, PhDInternational Agency for Research on Cancer

Hilary A. Robbins, PhD, is an American epidemiologist at the International Agency for Research on Cancer (IARC/WHO) in Lyon, France. She co-leads the IARC Risk Assessment and Early Detection (RED) team, a group of 16 scientists, staff, and fellows from 14 countries. Dr. Robbins studies risk-tailored approaches to early cancer detection and screening, with a focus on quantifying the potential utility of tools such as risk prediction models and biomarkers. Specific areas of focus include lung cancer, HPV-related cancers, and multi-cancer early detection.



Wendy Rubinstein, MD, PhDNational Cancer Institute

Wendy Rubinstein, M.D., Ph.D., is a Board-Certified Clinical and Molecular Geneticist and Senior Scientific Officer in the Division of Cancer Prevention at the National Cancer Institute. Dr. Rubinstein advises NCI leadership on multi-cancer detection tests (MCDs), supports NCI's newly created Cancer Screening Research Network, and co-leads the Cancer Moonshot White House Task Force working group on MCDs.

Prior to joining NCI in 2022, Dr. Rubinstein was FDA Director of Personalized Medicine and Deputy Director of the Office of In Vitro Diagnostics in the Center for Devices and Radiological Health. At FDA she supervised the review of in vitro diagnostics with a focus on multicancer detection technologies, companion diagnostics, and pharmacogenomics. Dr.

Rubinstein supported the development and implementation of FDA's policies surrounding laboratory developed tests and technical assistance on the VALID legislation.

Previously, Dr. Rubinstein served as Deputy Medical Director of ASCO's real world data platform CancerLinQ which represents data from over 6 million patients in 100 cancer organizations using 13 different health record systems. Dr. Rubinstein launched and directed the National Institute of Health's Genetic Testing Registry, a comprehensive resource on genetic tests containing ~70,000 tests available in 442 labs worldwide. She is a co-creator of ClinVar, which provides critical information for the interpretation of genetic test results, a resource now integrated into clinical and research genomic pipelines worldwide containing over 4.4 million records from 90 countries. Dr. Rubinstein co-discovered the *SDHD* gene for hereditary paraganglioma-pheochromocytoma syndrome and directed academic cancer genetics programs for 15 years at NCI-designated Comprehensive Cancer Centers.





Deborah Schrag, MD, MPH Memorial Sloan Kettering Cancer Center

Deb Schrag, MD, MPH, is Chair of the Department of Medicine at Memorial Sloan Kettering Cancer Center in New York City where she is responsible for faculty and program development across all medical subspecialties and for achieving excellence in cancer care, discovery, and training. She is also a Professor of Medicine at Weill Cornell Medical College. She is the former Chief of the Division of Population Sciences at Dana-Farber Cancer Institute, and Professor of Medicine at Harvard Medical School. Her clinical expertise is in gastrointestinal oncology with a focus on management of colorectal cancer. Her research focuses on improving the quality and effectiveness of cancer care delivery and translating discoveries from basic science and clinical trials so that they achieve maximal benefit in the context of routine practice and public health. She led the Dana-Farber Harvard Cancer Center's Program in Cancer Care Delivery Research and has served as one of the PIs helping to launch AACR's Project GENIE. She has performed foundational work to develop capacity

for collecting patient-reported outcomes and has demonstrated that systematic collection improves treatment outcomes. She has developed phenomic data standards for defining "real world" endpoints and harnessing the potential power of natural language processing and machine learning. She has served as a Board member of ASCO, an Associate Editor of JAMA, and as an advisor to states, federal agencies and international health ministries where she has championed integration of public health and policy perspectives into cancer care.



Ya-Chen Tina Shih, PhD University of California, Los Angeles

Ya-Chen Tina Shih, Ph.D., is Professor of Health Economics at Department of Radiation Oncology, UCLA David Geffen School of Medicine, with a joint appointment with the Department of Medicine at School of Medicine and the Department of Health Policy and Management at Fielding School of Public Health. Dr. Shih is the inaugural Director of the Cancer Health Economics Research (CHEER) Program at UCLA Jonsson Comprehensive Cancer Center. Dr. Shih applies methods of health economics, health services research, and pharmacoeconomics in cancer research. She is currently working on studies funded by the NCI, including research that examines the costs, outcomes, and utilization patterns of new oncologic technology for cancer treatment, evaluates economic implications of targeted oral anticancer medications drugs, and develops novel statistical methods to estimate and project cost trajectories of cancer care. Other ongoing research includes the assessment of

the cost-effectiveness of cancer screening strategies and behavioral interventions.

Dr. Shih has over 270 peer-reviewed publications, 15 invited editorial or commentary, and 7 book chapters. She is a member of the American Cancer Society Guidelines Development Workgroup, an Associate Editor of *Journal of the National Cancer Institute* and is on the editorial board of *Value in Health*, *PharmacoEconomics*, and *JCO Oncology Practice*.



Lawrence N. Shulman, MD, MACP, FASCO University of Pennsylvania

Lawrence N. Shulman, MD, is Professor of Medicine at the Perelman School of Medicine, the Associate Director for Special Projects at the Abramson Cancer Center at the University of Pennsylvania, and Director of the Center for Global Cancer Medicine. He received his MD from Harvard Medical School and trained in Hematology and Oncology at the Beth Israel Hospital in Boston, MA.

Dr. Shulman is the immediate Past-Chair of the Commission on Cancer and serves on the National Cancer Policy Forum of the National Academy. He is the former Chair of the



American Society of Clinical Oncology Quality of Care Committee and the Commission on Cancer's Quality Integration Committee.

A specialist in the treatment of patients with breast cancer, his research includes development of new cancer therapies, and implementation of cancer treatment programs in low-resource settings.

In this regard, Dr. Shulman serves as Senior Oncology Advisor to the non-profit organization Partners In Health (PIH). The PIH mission includes the establishment of national cancer treatment programs with the Ministries of Health in Rwanda, Lesotho, and Haiti, programs for which he plays a seminal leadership role.



Robert A. Smith, PhD American Cancer Society

Robert A. Smith, PhD, is a cancer epidemiologist and Senior Vice President and Director, American Cancer Society Center for Early Cancer Detection Science. He also is Adjunct Professor of Epidemiology, Emory University Rollins School of Public Health. At the ACS he leads a team responsible for developing ACS cancer screening guidelines, and is involved in national and international research initiatives focused on early cancer detection. Prior to the ACS, he held positions at the Boston School of Public Health and the Centers for Disease Control. He has participated in previous International Agency for Research on Cancer (IARC) Institute of Medicine workshops on mammography quality assurance and lung cancer screening, and has been a prevention committee member for

IARC Handbooks on breast, cervical, and colorectal cancer. Presently he is a member of the Clinical Utility Workgroup of the MCED Consortium. He has published over 400 peer-reviewed scientific articles, reports, and book chapters, serves on many international and national government and professional advisory committees and working groups, and in 2011, he received the Medal of Honor from IARC.



Robert A. Winn, MDMassey Comprehensive Cancer Center, Virginia Commonwealth University

Robert A. Winn, MD, is the Director of Virginia Commonwealth University (VCU) Massey Comprehensive Cancer Center. He is also senior associate dean for cancer innovation at the VCU School of Medicine, and professor at the Division of Pulmonary Disease and Critical Care Medicine at VCU. His current basic science research focuses on the translational aspects of the role that proliferation pathways and cellular senescence play in lung cancer. Winn has also brought the importance of the concept of ZNA (i.e., one's zip code or neighborhood of association) and its impact on DNA and biological outcomes to the forefront in basic and translational research. His findings in this area have driven several important studies and has truly advanced the science of health equity. He is a principal investigator on several community-based projects funded by the NIH and

National Cancer Institute. Robert is the President of the Association of American Cancer Institutes (AACI); Chair of the National Cancer Policy Forum of the National Academies of Sciences, Engineering, and Medicine; and a member of the Board of Directors for the American Cancer Society and LUNGevity Foundation. Robert holds a BA from the University of Notre Dame and an MD from the University of Michigan Medical School in Ann Arbor. He completed an internship and residency in internal medicine at Rush-Presbyterian-St. Luke's Medical Center in Chicago and a fellowship in pulmonary and critical care medicine at the University of Colorado Health Sciences Center in Denver.









National Cancer Policy Forum

The National Cancer Policy Forum serves as a trusted venue in which experts can identify emerging high-priority policy issues in cancer research and cancer care and work collaboratively to examine those issues through convening activities focused on opportunities for action. The forum provides a continual focus within the National Academies on cancer, addressing issues in science, clinical medicine, public health, and public policy that are relevant to the goal of reducing the cancer burden through prevention and by improving the care and outcomes for those diagnosed with cancer. Forum activities inform the cancer community and the public about critical policy issues through workshops and published reports. The forum has members with a broad range of expertise in cancer, including patient advocates, clinicians, and basic, translational, and clinical scientists. Forum members represent patients, federal agencies, academia, professional organizations, nonprofits, and industry.

The forum has addressed a wide array of topics, including

- enhancing collaborations to accelerate research and development;
- improving the quality and value of care for patients who have been diagnosed with or are at risk for cancer;
- developing tools and technologies to enhance cancer research and care: and
- examining factors that influence cancer incidence, mortality, and disparities.



Upcoming and Recent Workshops

Improving Public Policies to Enhance Cancer Care and Outcomes

September 29-30, 2025

Public policy in the United States – at the federal, state, and local levels – influences cancer prevention strategies and the quality and accessibility of cancer care, and thus has a pivotal role in health outcomes across the cancer continuum. This workshop will explore examples of how public policies affect cancer care and health outcomes across the cancer continuum.

Learn more and register here

Cancer Engineering: The Convergence of Engineering and Health to Advance Cancer Research and Care

Collaborative workshop convened by:

National Cancer Policy Forum Board on Mathematical Sciences and Analytics Board on Life Sciences

May 20-21, 2025

The concept of cancer engineering involves the application of engineering principles to solve challenges across cancer research and cancer care. This multidisciplinary approach brings together the fields of biology, engineering, and health care to devise innovative solutions that enhance the effectiveness, accessibility, and affordability of cancer care. This workshop will consider opportunities to improve patient outcomes through the convergence of engineering with oncology practice, research, and policy.

Learn more and register here

Addressing the Impact of Tobacco and Alcohol Use on Cancer-Related Health Outcomes

Collaborative workshop convened by:

National Cancer Policy Forum Forum on Mental Health and Substance Use Disorders

March 17-18, 2025

The use of both alcohol and tobacco has independent and synergistic health effects, including links to many different cancers. There is a clear need to better understand the impact of dual use on cancer incidence and outcomes, to improve public education, and to develop oncology clinical practice guidelines for patients who use alcohol and tobacco. This workshop will examine the current state of the science and explore strategies to reduce tobacco and alcohol use to lower cancer risk and improve health outcomes.

Learn more and register here

Examining Clinical Guidelines for the Adoption of Genomic Testing

Collaborative workshop convened by:

Roundtable on Genomics and Precision Health National Cancer Policy Forum

October 29, 2024

Clinical practice guidelines can impact adoption of new technologies into routine medical care. This workshop will examine how guidelines for genomic testing are developed by various organizations, with a focus on exploring inconsistencies across guidelines and opportunities for a possible path forward for more consistent clinical guidelines for genomics to improve patient care.

Learn more and register here

Opportunities and Challenges for the Development and Adoption of Multicancer Detection Tests

October 28-29, 2024

Cancer screening is considered a key cancer control strategy because patients who are diagnosed with earlier stages of disease often have better treatment options and improved health outcomes. However, effective screening tests are lacking for most cancers. The development of minimally invasive approaches to screen for multiple tumor types at once could address this unmet need, but the clinical utility of multicancer detection (MCD) testing has yet to be established.

Learn more and register here

Enabling 21st Century Applications for Cancer Surveillance Through Enhanced Registries and Beyond

July 29-30, 2024

Population-based cancer surveillance has a pivotal role in assessing the nation's progress in cancer control. Cancer surveillance helps inform research and care interventions aimed at reducing the burden of cancer on patients and communities, including the ability to identify health disparities in cancer outcomes. Surveillance data are crucial for identifying emerging trends in health outcomes and opportunities to improve the quality of cancer care. However, challenges with the current approach to cancer surveillance in the United States include delays and gaps in data collection, as well as inadequate infrastructure and workforce to keep pace with the informatics and treatment-related advances in cancer. The National Cancer Policy Forum convened a public workshop to examine opportunities to enhance and modernize cancer surveillance in order to improve cancer research, care, and outcomes for all patients.

Workshop videos and presentations

Recent Workshops

Toward a Framework to Improve Diversity and Inclusion in Clinical Trials

Collaborative workshop convened by:

Forum on Drug Discovery, Development, and Translation National Cancer Policy Forum

May 20, 2024

This workshop aimed to explore opportunities to improve racial and ethnic diversity in clinical trials with a focus on system-level change and collective efforts across organizations and sectors that no one entity can effectively take on alone.

Workshop videos and presentations

Biological Effectors of Social Determinants of Health in Cancer: Identi ication and Mitigation

March 20-21, 2024

Biological effectors of social determinants of health (SDOH) interact and impact cancer risk, treatment outcomes, and health equity. This workshop considered opportunities to advance health equity in cancer by identifying promising avenues for future research, as well as policies and interventions aimed at mitigating the negative impacts of the SDOH in cancer.

Workshop videos and presentations

Proceedings

Optimizing Public-Private Partnerships for Clinical Cancer Research

Collaborative workshop convened by:

National Cancer Policy Forum Forum on Drug Discovery, Development, and Translation

October 17-18, 2023

Public-private partnerships (PPPs) have the potential to more effectively leverage public funding and resources, increase the breadth and depth of research, and affect a more rapid translation from basic discoveries to public health applications. Industry, government, nonprofit, and academic organizations could each make important and unique contributions to this endeavor. This workshop examined opportunities to enhance and foster PPPs for clinical cancer research and considered lessons learned from examples of public-private collaborations in oncology or other fields that have helped to advance clinical research and improve patient outcomes.

Workshop videos and presentations

Proceedings

Assessing and Advancing Progress in the Delivery of High-Quality Cancer Care

Collaborative workshop co-hosted by:

National Cancer Policy Forum American Society of Clinical Oncology

October 5-6, 2023

2023 marked the 10-year anniversary of the Institute of Medicine report Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis and the ability of the cancer care delivery system to provide high-quality cancer care to all patients remains elusive. This workshop provided an opportunity for the cancer care community to discuss persistent barriers to achieving excellent and equitable cancer care for all and additional actions that could be taken to implement the 2013 recommendations. Workshop presentations and discussions also identified aspects of cancer care that have changed over the past decade and where new strategies are needed to improve the quality of care.

Workshop videos and presentations

Proceedings

Developing a Multidisciplinary and Multispecialty Workforce for Patients with Cancer, from Diagnosis to Survivorship

Collaborative workshop convened by:

National Cancer Policy Forum
Global Forum on Innovation in Health Professional Education

July 17-18, 2023

Patients living with and beyond cancer often require care from a wide range of clinicians as they navigate cancer diagnosis, treatment, and survivorship care. A multispecialty and multidisciplinary workforce is critical to ensuring that all patients with cancer receive high-quality care. This workshop examined opportunities to improve equitable access to multispecialty, multidisciplinary care for patients living with and beyond cancer.

Workshop videos and presentations

Proceedings

The Impact of the Dobbs Decision on Cancer Care Webinar Series

The National Cancer Policy Forum hosted a webinar series to discuss the downstream effects of the U.S. Supreme Court ruling *Dobbs v. Jackson Women's Health Organization* on access to reproductive health care in the context of cancer care.

- How Abortion Restrictions Affect Patients and Care Delivery, July 11, 2023
- Health System and Workforce Effects, July 25, 2023
- Ethical, Legal, and Social Implications, August 31, 2023

Webinar series website

Interactive webpage

Forum Sponsors

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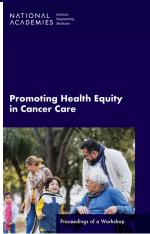
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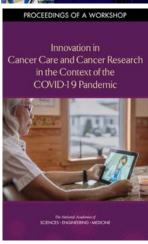
Sciences Engineering

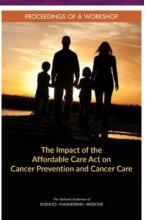
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WORKSHOP PROCEEDINGS AND RELATED PUBLICATIONS







WORKSHOP PROCEEDINGS

2024

Enabling 21st Century Applications for Cancer Surveillance through Enhanced Registries and Beyond (In Progress)

Biological Effectors of Social Determinants of Health in Cancer: Identification and Mitigation Optimizing Public-Private Partnerships for Clinical Cancer Research

Assessing and Advancing Progress in the Delivery of High-Quality Cancer Care

Developing a Multidisciplinary and Multispecialty Workforce for Patients with Cancer, from Diagnosis to Survivorship

Incorporating Integrated Diagnostics into Precision Oncology Care: Proceedings of a Workshop Addressing Treatment Resistance in the Development of Cancer Immune Modulator Therapeutics: Proceedings of a Workshop

2023

The Potential Contribution of Cancer Genomics Information to Community Investigations of Unusual Patterns of Cancer: Proceedings of a Workshop

Advancing Progress in Cancer Prevention and Risk Reduction: Proceedings of a Workshop Realizing the Potential of Genomics across the Continuum of Precision Health Care:

Proceedings of a Workshop

2022

Family Caregiving for People with Cancer and Other Serious Illnesses: A Workshop Innovation in Electronic Health Records for Cancer Care, Research, and Surveillance: A Workshop Promoting Health Equity in Cancer Care: Proceedings of a Workshop

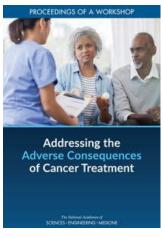
The Role of Companion Animals as Sentinels for Predicting Environmental Exposure Effects on Aging and Cancer Susceptibility in Humans: Proceedings of a Workshop

Innovation in Cancer Care and Cancer Research in the Context of the COVID-19 Pandemic: Proceedings of a Workshop

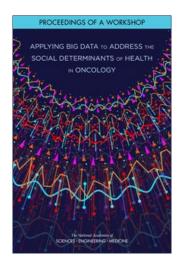
Impact of the Affordable Care Act on Cancer Prevention and Cancer Care: Proceedings of a Workshop

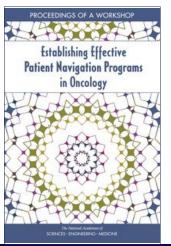
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WORKSHOP PROCEEDINGS

2021

Addressing the Adverse Consequences of Cancer Treatment: Proceedings of a Workshop

Opportunities and Challenges for Using Digital Health Applications in Oncology: Proceedings of a Workshop Improving the Evidence Base for Treatment Decision Making for Older Adults with Cancer:

Proceedings of a Workshop— in Brief

Advancing Progress in the Development and Implementation of Effective, High-Quality Cancer Screening: Proceedings of a Workshop

Drug Research and Development for Adults Across the Older Age Span: Proceedings of a Workshop

2020

Reflections on Sharing Clinical Trial Data: Challenges and a Way Forward: Proceedings of a Workshop
Applying Big Data to Address the Social Determinants of Health in Oncology: Proceedings of a Workshop
Health Literacy and Communication Strategies in Oncology: Proceedings of a Workshop
Enhancing Scientific Reproducibility in Biomedical Research Through Transparent Reporting:
Proceedings of a Workshop

2019

Developing and Sustaining an Effective and Resilient Oncology Careforce: Proceedings of a Workshop Advancing Progress in the Development of Combination Cancer Therapies with Immune Checkpoint Inhibitors: Proceedings of a Workshop

Improving Cancer Diagnosis and Care: Clinical Application of Computational Methods in Precision Oncology: Proceedings of a Workshop

2018

Improving Cancer Diagnosis and Care: Patient Access to Oncologic Imaging and Pathology Expertise and Technologies: Proceedings of a Workshop

Establishing Effective Patient Navigation Programs in Oncology: Proceedings of a Workshop Long-Term Survivorship Care After Cancer Treatment: Proceedings of a Workshop

2017

The Drug Development Paradigm in Oncology: Proceedings of a Workshop

Cancer Care in Low-Resource Areas: Cancer Treatment, Palliative Care, and Survivorship Care: Proceedings of a Workshop

Implementation of Lung Cancer Screening: Proceedings of a Workshop

Incorporating Weight Management and Physical Activity Throughout the Cancer Care Continuum: Proceedings of a Workshop

2016

Policy Issues in the Clinical Development and Use of Immunotherapy for Cancer Treatment:

Proceedings of a Workshop

Cancer Care in Low-Resource Areas: Cancer Prevention and Early Detection: Workshop Summary
Appropriate Use of Advanced Technologies for Radiation Therapy and Surgery in Oncology: Workshop Summary

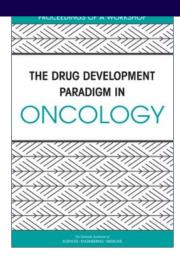
2015

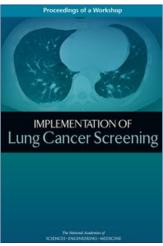
Comprehensive Cancer Care for Children and Their Families: Summary of a Joint Workshop by the Institute of Medicine and the American Cancer Society

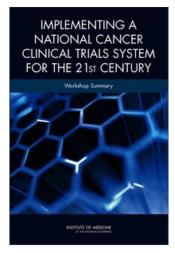
Policy Issues in the Development and Adoption of Biomarkers for Molecularly Targeted Cancer Therapies: Workshop Summary

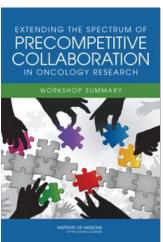
Assessing and Improving the Interpretation of Breast Images: Workshop Summary

Role of Clinical Studies for Pets with Naturally Occurring Tumors in Translational Cancer Research: Workshop Summary









WORKSHOP PROCEEDINGS

2014

Ensuring Patient Access to Affordable Cancer Drugs: Workshop Summary Contemporary Issues for Protecting Patients in Cancer Research: Workshop Summary

2013

Identifying and Addressing the Needs of Adolescents and Young Adults with Cancer: Workshop Summary Implementing a National Cancer Clinical Trials System for the 21st Century: Second Workshop Summary Sharing Clinical Research Data: Workshop Summary Delivering Affordable Cancer Care in the 21st Century: Workshop Summary Reducing Tobacco-Related Cancer Incidence and Mortality: Workshop Summary

2012

The Role of Obesity in Cancer Survival and Recurrence: Workshop Summary
Informatics Needs and Challenges in Cancer Research: Workshop Summary
Facilitating Collaborations to Develop Combination Investigational Cancer Therapies: Workshop Summary

2011

Implementing a National Cancer Clinical Trials System for the 21st Century: Workshop Summary Patient-Centered Cancer Treatment Planning: Improving the Quality of Oncology Care: Workshop Summary The National Cancer Policy Summit: Opportunities and Challenges in Cancer Research and Care Nanotechnology and Oncology: Workshop Summary

2010

Direct-to-Consumer Genetic Testing (with the National Research Council): Summary of a Workshop Extending the Spectrum of Precompetitive Collaboration in Oncology Research: Workshop Summary A Foundation for Evidence-Driven Practice: A Rapid Learning System for Cancer Care: Workshop Summary Policy Issues in the Development of Personalized Medicine in Oncology: Workshop Summary

2009

Assessing and Improving Value in Cancer Care: Workshop Summary

Ensuring Quality Cancer Care Through the Oncology Workforce: Sustaining Care in the 21st Century:

Workshop Summary

Multi-Center Phase III Clinical Trials and the NCI Cooperative Group Program: Workshop Summary

2008

Implementing Colorectal Cancer Screening: Workshop Summary Improving the Quality of Cancer Clinical Trials: Workshop Summary

2007

Cancer-Related Genetic Testing and Counseling: Workshop Proceedings Cancer in Elderly People: Workshop Proceedings Implementing Cancer Survivorship Care Planning: Workshop Summary

2006

Effect of the HIPAA Privacy Rule on Health Research: Proceedings of a Workshop

Developing Biomarker-Based Tools for Cancer Screening, Diagnosis, and Treatment: Workshop Summary

CONSENSUS STUDY REPORTS BUILDING ON NCPF WORK

Childhood Cancer and Functional Impacts Across the Care Continuum (2021)

Report: nap.edu/catalog/25944

Diagnosing and Treating Adult Cancers and Associated Impairments (2021)

Report: nap.edu/catalog/25956

Guiding Cancer Control:
A Path to Transformation (2019)

Report: nap.edu/catalog/25438

Making Medicines Affordable: A National Imperative (2017)

Report: nap.edu/catalog/24946

Biomarker Tests for Molecularly Targeted Therapies: Key to Unlocking Precision Medicine (2016)

Report: nap.edu/catalog/21860

Ovarian Cancers: Evolving Paradigms in Research and Care (2016)

Report: nap.edu/catalog/21841

Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis (2013)

Report: nap.edu/catalog/18359

Evolution of Translational Omics: Lessons Learned and the Path Forward (2012)

Report: nap.edu/catalog/13297

A National Cancer Clinical Trials System for the 21st Century: Reinvigorating the NCI Cooperative Group Program (2010)

Report: nap.edu/catalog/12879

Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease (2010)

Report: nap.edu/catalog/12869

Beyond the HIPAA Privacy Rule: Enhancing Privacy, Improving Health Through Research (2009)

Report: nap.edu/catalog/12458

Cancer Biomarkers: The Promises and Challenges of Improving Detection and Treatment (2007)

Report: nap.edu/read/11892



Independent, individually authored articles arising from NCPF workshops—and consensus studies building on NCPF work—include:

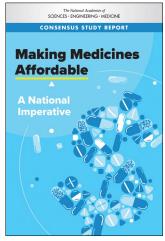
2024

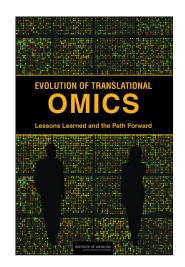
- Singh, A. P., E. P. Balogh, R. W. Carlson, M. M. Huizinga, B. A. Malin, A. Melamed, N. J. Meropol, E. D. Pisano, R. A. Winn, K. R. Yabroff, and L. N. Shulman. 2024. Re-envisioning electronic health records to optimize patient-centered cancer care, quality, surveillance, and research. *JCO Oncology Practice*. 10.1200/OP.24.00260.
- Peterson, D. E., N. L. Stout, L. N. Shulman, J. Perkins, G. LeMarier, and L. Nekhlyudov. 2024. Gaps in access to medically necessary dental care for patients living with and beyond cancer: We must do better. *Journal of Clinical Oncology*. https://doi.org/10.1200/JCO.24.00162.

2022

- Bono, K. and N. L. Keating. 2022. Addressing social determinants of health: Now is the time. *Journal of the National Cancer Institute*. https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djac137/6705076?searchresult=1.
- Bradley, C. J., S. Kitchen, S., Bhatia, J. Bynum, G. Darien, J. L. Lichtenfeld, R. Oyer, L. N. Shulman, and L. Kennedy Sheldon. 2022. Policies and practices to address cancer's long-term adverse consequences. *Journal of the National Cancer Institute*. 114(8):1065-1071. https://academic.oup.com/jnci/article-abstract/114/8/1065/6570605?redirectedFrom=fulltext.
- Davidson, N. E., K. E. Knudsen, S. Fuld Nasso, R. Oyer, S. Pergam, L. Strawbridge, and L. Shulman. 2022. Cancer care at the beginning of the COVID-19 pandemic: Effects on patients and early interventions to mitigate stresses on care. *Cancer Journal* 28(2):107-110. https://journals.lww.com/journalppo/Abstract/2022/03000/Cancer_Care_at_the_Beginning_of_the_COVID_19.5.aspx.
- Fan, Q, D. Keene, M. Banegas, S. Gehlert, L. M. Gottlieb, K. R. Yabroff, C. E. Pollack. 2022. Housing insecurity among patients with cancer. *Journal of the National Cancer Institute.*. https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djac136/6705075?searchresult=1.
- Graboyes, E. M., K. H. Chaiyachati, J.S. Gall, W. Johnson, J. S. Krishnan, S. S. McManus, L. Thompson, L. N. Shulman, K. R. Yabroff.
 2022. Addressing transportation insecurity among patients with cancer. *Journal of the National Cancer Institute*. https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djac134/6705073?searchresult=1.
- Hyer, R. N. 2022. Insights for oncology trials garnered from the rapid development of an mRNA COVID-19 vaccine. Cancer Journal 28(2):146-150. https://journals.lww.com/journalppo/Fulltext/2022/03000/Insights_for_Oncology_Trials_Garnered_ From_the.12.aspx.
- Karzai, F., and W. L. Dahut. 2022. Lessons from the impact of the COVID-19 pandemic at the national cancer institute: Cancer research and care. Cancer Journal 28(2):118-120. https://journals.lww.com/journalppo/Abstract/2022/03000/Lessons_From_the_Impact_of_the_COVID_19_Pandemic.7.aspx.









2022, continued

- Nekhlyudov, L., L. A. Fleisher, and P. B. Jacobsen. 2022. Telemedicine across the cancer care continuum: Evidence and opportunities for clinical care, research, and policy. Cancer Journal 28(2):121-124. https://journals.lww.com/journalppo/Abstract/2022/03000/Telemedicine_Across_the_Cancer_Care_Continuum. 8.aspx.
- Nekhlyudov L., G. B. Campbell., K. H. Schmitz, G.A. Brooks, A.J. Kumar, P.A. Ganz, and D. Von Ah 2022. Cancer-related impairments and functional limitations among long-term cancer survivors: Gaps and opportunities for clinical practice. *Cancer* 128(2): 222-229. https://pubmed.ncbi.nlm.nih.gov/34529268/.
- Oyer, R. A., L. Pierce, C. Lathan, and B. Sagar. 2022. Maintaining and advancing quality cancer care during a global pandemic. *Cancer Journal* 28(2):134-137. https://journals.lww.com/journalppo/Abstract/2022/03000/Maintaining_and_Advancing_Quality_Cancer_Care.10.aspx.
- Parikh, R. B., K. M. Basen-Engquist, C. Bradley, D. Estrin, M. Levy, J. L. Lichtenfeld, B. Malin, D. McGraw, N. J. Meropol, R. Oyer, L. Kennedy Sheldon, and L. N. Shulman. 2022. Digital health applications in oncology: An opportunity to seize. 2022. *Journal of the National Cancer Institute.*. https://academic.oup.com/inci/advance-article-abstract/doi/10.1093/inci/diac108/6596055?redirectedFrom=fulltext#no-access-message.
- Prindiville, S. A., G. A. Sarosy, D. Loose, H. Ciolino, and J. H. Doroshow. 2022. Patterns of enrollment in cancer treatment trials during the COVID-19 pandemic at national cancer institute-designated cancer centers. *Cancer Journal* 28(2):111-117. https://journals.lww.com/journalppo/Abstract/2022/03000/Patterns_of_Enrollment_in_Cancer_Treatment_Trials.6.aspx.
- Raber, M., A. Jackson, K. Basen-Engquist, C. Bradley, S. Chambers, F. N. Gany, C. Hughes-Halbert, S. T. Lindau, R. Perez-Escamilla, and H. Seligman. 2022. Food insecurity among people with cancer: Nutritional needs as an essential component of care. *Journal of the National Cancer Institute*. https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djac135/6705074?searchresult=1..
- Rivera, D. R., P. G. Kluetz, K. Abdallah, S. Agrawal, D. C. Angus, R. M. Califf, E. Garrett-Mayer, R. Hyer, D. R. Lowy, and S. N. Khleif. 2022. Clinical evidence generation during a pandemic: Lessons learned for sustaining progress. *Cancer Journal* 28(2):151-156. https://journals.lww.com/journalppo/Abstract/2022/03000/Clinical_Evidence_Generation_During_a_Pandemic_.13.aspx.
- Roberts, T. J., and I. T. Lennes. 2022. Lessons for oncology from the COVID-19 pandemic: Operationalizing and scaling virtual cancer care in health systems. Cancer Journal 28(2):125-133. https://journals.lww.com/journalppo/Abstract/2022/03000/Lessons_for_Oncology_From_the_COVID_19_Pandemic_.9.aspx.
- Schilsky, R. L. 2022. Beyond the COVID-19 pandemic: Sustaining and improving equitable cancer care and research. *Cancer Journal* 28(2):105-106. https://journals.lww.com/journalppo/Citation/2022/03000/Beyond_the_COVID_19_Pandemic__Sustaining_and.4.aspx.
- Winkfield, K. M., and R. A. Winn. 2022. Improving equity in cacer care in the face of a publice health emergency. Cancer Journal 28(2):128-145. https://journals.lww.com/journalppo/Abstract/2022/03000/Improving_Equity_in_Cancer_Care_in_the_Face_of_a.11.aspx

2021

- Bertagnolli, M. M. and H. Singh. 2021. Treatment of older adults with cancer Addressing gaps in evidence. *New England Journal of Medicine* 385:1062-1065. https://www.nejm.org/doi/full/10.1056/NEJMp2106089.
- Housten, A. J., C. M. Gunn, M. K. Paasche-Orlow, and K. M. Basen-Engquist. 2021. Health literacy interventions in cancer: A systematic review. *Journal of Cancer Education* 36(2):240-252. https://pubmed.ncbi.nlm.nih.gov/33155097/.

2020

- Schilsky, R.L., S. Nass, M.M. Le Beau, and E. J. Benz, Jr. 2020. Progress in cancer research, prevention, and care. *New England Journal of Medicine* 383(10):897-990. https://www.nejm.org/doi/full/10.1056/NEJMp2007839..
- Shulman, L. N., L. Kennedy Sheldon, and E. J. Benz. 2020. The future of cancer care in the United States—Overcoming workforce capacity limitations. *JAMA Oncology* 6(3):327-328. https://jamanetwork.com/journals/jamaoncology/article-abstract/2758839..
- Panagiotou, O. A., L. Hoffman-Högg, H. Hricak, S. N. Khleif, M. A. Levy, D. Magnus, M. J. Murphy, B. Patel, R. A. Winn, S. J. Nass, C. Gatsonis, and C. R. Cogle. 2020.
 Clinical application of computational methods in precision oncology: A review. JAMA Oncology 6(8):1282:1286. https://jamanetwork.com/journals/jamaon-cology/article-abstract/2765757.

2019

- Balogh, E. P., A. B. Bindman, S. G. Eckhardt, S. Halabi, R. D. Harvey, I. Jaiyesimi, R. Miksad, H. L. Moses, S. J. Nass, R. L. Schilsky, S. Sun, J. M. Torrente, and K. E. Warren. 2019. Challenges and opportunities to updating prescribing information for longstanding oncology drugs. *The Oncologist* 24:1-7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7066705/.
- Takvorian, S. U., E. Balogh, S. Nass, V. L. Valentin, L. Hoffman-Högg, R. A. Oyer, R. W. Carlson, N. J. Meropol, L. Kennedy Sheldon, and L. N. Shulman. 2019. Developing and sustaining an effective and resilient oncology careforce: Opportunities for action, *Journal of the National Cancer Institute* 112(7):663-670. https://doi.org/10.1093/jnci/djz239.
- Kline, R. M., G. B. Rocque, E. A. Rohan, K. A. Blackley, C. A. Cantril, M. L. Pratt-Chapman, H. A. Burris, and L.N Shulman. 2019. Patient navigation in cancer: The business case to support clinical needs. Journal of Oncology Practice 15(11):585-590. https://www.ncbi.nlm.nih.gov/pubmed/31509483..
- Lubejko, B. G., C. Cantril, L. H. Hogg, and L. Kennedy Sheldon. 2019. Novice oncology nurse navigator: Core elements in establishing training needs and building on competencies. *Clinical Journal of Oncology Nursing* 23(4):387-394. https://www.ncbi.nlm.nih.gov/pubmed/31322621..
- Nass, S. J., M.B. Cohen, R. Nayar, M.M. Zutter, E. P. Balogh, R. L. Schilsky, H. Hricak, and K.S.J. Elenitoba-Johnson. 2019. Improving cancer diagnosis and care: Patient access to high-quality oncologic pathology. *The Oncologist* 24(10):1287-1290. https://www.ncbi.nlm.nih.gov/pubmed/31366725.
- Lopez, D., M. L. Pratt-Chapman, E. A. Rohan, L. Kennedy Sheldon, K. Basen-Engquist, R. Kline, L. N. Shulman, and E. J. Flores. 2019. Establishing effective patient navigation programs in oncology. *Supportive Care in Cancer* 27(6):1985-1996. https://www.ncbi.nlm.nih.gov/pubmed/30887125.
- Nass, S. J., C. R. Cogle, J. A. Brink, C. P. Langlotz, E. P. Balogh, A. Muellner, D. Siegal, R. L. Schilsky, and H. Hricak. 2019. Improving cancer diagnosis and care: Patient access to oncologic imaging expertise. *Journal of Clinical Oncology* 37(20):1690-1694. https://www.ncbi.nlm.nih.gov/pubmed/31050908.

- Kline, R. M., N. K. Arora, C. J. Bradley, E. R. Brauer, D. L. Graves, N. Buchanan Lunsford, M. S. McCabe, S. F. Nasso, L. Nekhlyudov, J. H. Rowland, R. M. Schear, and P. A. Ganz. Long-term survivorship care after cancer treatment—summary of a 2017 National Cancer Policy Forum workshop. *Journal of the National Cancer Institute* 110(12):1300-1310. https://www.ncbi.nlm.nih.gov/pubmed/30496448.
- Nass, S. J., M. Rothenberg, R. Pentz, H. Hricak, A. Abernethy, K. Anderson, A. W. Gee, R.D. Harvey, S. Piantadosi, M. M. Bertagnolli, D. Schrag, and R. L. Schilsky. Accelerating anticancer drug development—opportunities and trade-offs. *Nature Reviews Clinical Oncology* 15(12):777-786. https://www.ncbi.nlm.nih.gov/pubmed/30275514.
- Demark-Wahnefried, W., K. H. Schmitz, C. M. Alfano, J. R. Bail, P. J. Goodwin, C. A. Thomson, D. W. Bradley, K. S. Courneya, C. A. Befort, C. S. Denlinger, J. A. Ligibel, W. H. Dietz, M. R. Stolley, M. L. Irwin, M. M. Bamman, C. M. Apovian, B. M. Pinto, K. Y. Wolin, R. M. Ballard, A. J. Dannenberg, E. G. Eakin, M. M. Longjohn, S. D. Raffa, L. L. Adams-Campbell, J. S. Buzaglo, S. J. Nass, G. M. Massetti, E. P. Balogh, E. S. Kraft, A. K. Parekh, D. M. Sanghavi, G. S. Morris, and K. Basen-Engquist. 2018. Weight management and physical activity throughout the cancer care continuum. *CA: A Cancer Journal for Clinicians* 68(1):64-89. https://www.ncbi.nlm.nih.gov/pubmed/29165798.

2017

- Basen-Engquist, K., C. M. Alfano, M. Maitin-Shepard, C. A. Thomson, K. H. Schmitz, B. M. Pinto, K. Stein, D. S. Zucker, K. L. Syrjala, E. Fallon, C. Doyle, and W. Demark-Wahnefried. 2017. Agenda for translating physical activity, nutrition, and weight management interventions for cancer survivors into clinical and community practice. Obesity (Silver Spring) 25(Suppl 2):S9-S22. https://www.ncbi.nlm.nih.gov/pubmed/29086526.
- Smith, G. L., P. A. Ganz, J. E. Bekelman, S. J. Chmura, J. J. Dignam, J. A. Efstathiou, R. Jagsi, P. A. Johnstone, M. L. Steinberg, S. B. Williams, J. B. Yu, A. L. Zietman, R. R. Weichselbaum, and Y.-C. Shih. 2017. Promoting the appropriate use of advanced radiation technologies in oncology: Summary of a National Cancer Policy Forum workshop. *International Journal of Radiation Oncology Biology Physics* 97(3):450-461. https://www.ncbi.nlm.nih.gov/pubmed/28011046.

2016

• Kirch, R., G. Reaman, C. Feudtner, L. Wiener, L. A. Schwartz, L. Sung, and J. Wolfe. 2016. Advancing a comprehensive cancer care agenda for children and their families: Institute of Medicine workshop highlights and next steps. *CA: A Cancer Journal for Clinicians* 66(5):398-407. https://www.ncbi.nlm.nih.gov/pubmed/27145249.

2015

Nass, S. J., L. K. Beaupin, W. Demark-Wahnefried, K. Fasciano, P. A. Ganz, B. Hayes-Lattin, M. M. Hudson, B. Nevidjon, K. C. Oeffinger, R. Rechis, L. C. Richardson, N. L. Seibel, and A. W. Smith. 2015. Identifying and addressing the needs of adolescents and young adults with cancer: Summary of an Institute of Medicine workshop. Oncologist 20(2):186-195. https://www.ncbi.nlm.nih.gov/pubmed/25568146.

2014

- Bertagnolli, M. M., R. Canetta, and S. J. Nass. 2014. Expanding public-private collaborations to enhance cancer drug development: A Report of the Institute of Medicine's workshop series, "Implementing a National Cancer Clinical Trials System for the 21st Century." Oncologist 19(11):1179-1185. https://www.ncbi.nlm.nih.gov/pubmed/25326161.
- Balogh, E. P., C. Dresler, M. E. Fleury, E. R. Gritz, T. J. Kean, M. L. Myers, S. J. Nass, B. Nevidjon, B. A. Toll, G. W. Warren, and R. S. Herbst. 2014. Reducing tobacco-related cancer incidence and mortality: Summary of an Institute of Medicine workshop. *Oncologist* 19(1):21-31. https://www.ncbi.nlm.nih.gov/pubmed/24304712.
- Ferrell, B. R., T. J. Smith, L. Levit, and E. Balogh. 2014. Improving the quality of cancer care: Implications for palliative care. *Journal of Palliative Medicine* 17(4):393-399. https://www.ncbi.nlm.nih.gov/pubmed/24548217.

2013

- Ramsey, S. D., P. A. Ganz, V. Shankaran, J. Peppercorn, and E. Emanuel. 2013. Addressing the American health-care cost crisis: Role of the oncology community. Journal of the National Cancer Institute 105(23):1777-1781. https://www.ncbi.nlm.nih.gov/pubmed/24226096.
- Balogh, E. P., P. B. Bach, P. D. Eisenberg, P. A. Ganz, R. J. Green, J. C. Gruman, S. J. Nass, L. N. Newcomer, S. D. Ramsey, J. E. Schottinger, and Y. T. Shih. 2013.
 Practice-changing strategies to deliver affordable, high-quality cancer care: Summary of an Institute of Medicine workshop. *Journal of Oncology Practice* 9(6s):54s-59s. https://www.ncbi.nlm.nih.gov/pubmed/29431037.

2012

- Demark-Wahnefried, W., E. A. Platz, J. A. Ligibel, C. K. Blair, K. S. Courneya, J. A. Meyerhardt, P. A. Ganz, C. L. Rock, K. H. Schmitz, T. Wadden, E. J. Philip, B. Wolfe, S. M. Gapstur, R. Ballard-Barbash, A. McTiernan, L. Minasian, L. Nebeling, and P. J. Goodwin. 2012. The role of obesity in cancer survival and recurrence. Cancer Epidemiology, Biomarkers & Prevention 21(8):1244-1259. https://www.ncbi.nlm.nih.gov/pubmed/22695735.
- LoRusso, P. M., R. Canetta, J. A. Wagner, E. P. Balogh, S. J. Nass, S. A. Boerner, and J. Hohneker. 2012.
 Accelerating cancer therapy development: The importance of combination strategies and collaboration.
 Summary of an Institute of Medicine workshop. *Clinical Cancer Research* 18(22):6101-6109. https://www.ncbi.nlm.nih.gov/pubmed/23065428.



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Examining Clinical Guidelines for the Adoption of Genomic Testing: A Workshop October 29, 2024

Roundtable on Genomics and Precision Health National Cancer Policy Forum

Lecture Room National Academy of Sciences Building 2101 Constitution Ave NW Washington, DC 20418

Workshop Background

Clinical practice guidelines are used as clinical decision support tools to promote best practices among those working in laboratories or health care settings. For genomic testing, they aim to standardize the application of genomic data in medical care through their recommendations. Clinical guidelines are most often developed by professional societies and there are multiple types of clinical guidelines. Furthermore, guidelines produced by different organizations can be incongruous even when using the same type of evidence. The lack of consistency in clinical guidelines can lead to gaps in the adoption of genomic testing across the health care ecosystem, creating challenges for clinicians, patients, payers, and genetic test developers.

To better understand the challenges and opportunities associated with consistent clinical practice guidelines for genomics, the Roundtable on Genomics and Precision Health will host a public workshop in collaboration with the National Cancer Policy Forum to examine how guidelines are developed and how groups could collaborate to create more compatibility.

The workshop's presentations and discussions may focus on:

- Exploring the processes and methodologies used by different professional societies, organizations, and collaborations to gather evidence and develop clinical guidelines for appropriate genomic testing.
- Understanding how clinicians, payers, test developers, laboratory partners, and others decide which guideline(s) to follow and how they use these guidelines in practice.
- Examining elements that are consistent and those that differ across clinical guidelines for genomics and how these areas impact patients (e.g., access, coverage, and equity in care), clinicians, payers, test developers, laboratories, and others.
- Discussing opportunities for a possible path forward for more compatible clinical guidelines for genomics to improve patient care.

Planning Committee

Mylynda Massart, UPMC Primary Care Precision Medicine Center (Co-Chair)

Victoria Pratt, Representing Association for Molecular Pathology; Agena Biosciences (Co-Chair)

Trish Brown, CVS Health

Pranil Chandra, PathGroup

W. Gregory Feero, Representing Journal of American Medical Association; Geisel School of Medicine;

Maine Dartmouth Family Medicine Residency Program

Gabriel Lazarin, Myriad Genetics

Funda Meric-Bernstam, MD Anderson Cancer Center

Rebecca Morgan, Evidence Foundation; McMaster University; Case Western Reserve University

Wanda Nicholson, George Washington University Milken Institute School of Public Health

Mary Nix, Agency for Healthcare Research and Quality

Pim Suwannarat, Mid-Atlantic Permanente Medical Group



Addressing the Impact of Tobacco and Alcohol Use on Cancer-Related Health Outcomes: A Workshop March 17-18, 2025

National Cancer Policy Forum Forum on Mental Health and Substance Use Disorders Lecture Room National Academy of Sciences Building 2101 Constitution Ave NW Washington, DC 20418

Workshop Background

The use of both alcohol and tobacco has independent and synergistic health effects, including links to many different cancers. There is a clear need to better understand the impact of dual use on cancer incidence and outcomes, to improve public education, and to develop oncology clinical practice guidelines for patients who use alcohol and tobacco. This workshop will examine the current state of the science and explore strategies to reduce tobacco and alcohol use to lower cancer risk and improve health outcomes.

This workshop will feature presentations and panel discussions on topics such as:

- The effects of tobacco and alcohol use--including synergistic effects--on cancer incidence and outcomes.
- Risk factors for tobacco and alcohol use and their influence on disparities in outcomes.
- Clinical practice guidelines, including in the context of cancer treatment, for tobacco cessation and interventions to help patients reduce alcohol use.
- Strategies for data collection and research to address evidence gaps.
- Lessons from tobacco control that could be applied to encourage reduction in alcohol use.
- Impact of recent tobacco policy changes and ways to further advance progress in tobacco control.

Planning Committee

Roy S. Herbst, Yale University (Co-Chair)
Gail Eckhardt, Baylor College of Medicine (Co-Chair)
Gwen Darien, National Patient Advocate Foundation
Scarlett Lin Gomez, University of California, San Francisco
Chanita Hughes-Halbert, University of Southern California
Farhad Islami, American Cancer Society
Roy Jensen, University of Kansas Cancer Center
Elena Martinez, University of California, San Diego
Nigar Nargis, American Cancer Society
Lisa Richardson, Centers for Disease Control and Prevention
Deidra Roach, National Institute on Alcohol Abuse and Alcoholism
Katrina Trivers, Centers for Disease Control and Prevention



Cancer Engineering: The Convergence of Engineering and Health to Advance Cancer Research and Care: A Workshop May 20-21, 2025

National Cancer Policy Forum Board on Mathematical Sciences and Analytics Board on Life Sciences Lecture Room National Academy of Sciences Building 2101 Constitution Ave NW Washington, DC 20418

Workshop Background

The concept of cancer engineering involves the application of engineering principles to solve challenges across cancer research and cancer care. This multidisciplinary approach brings together the fields of biology, engineering, and health care to devise innovative solutions that enhance the effectiveness, accessibility, and affordability of cancer care. This workshop will consider opportunities to improve patient outcomes through the convergence of engineering with oncology practice, research, and policy.

This workshop will feature presentations and panel discussions on topics such as:

- Strategies to break down disciplinary silos and promote convergence in engineering and cancer research and care.
- Consideration of technologies and interventions that apply engineering approaches to accelerate cancer research and to improve care and outcomes for patients with cancer.
- Examples of the challenges and opportunities to translate advances from engineering into technologies that enable precision cancer research and care.
- Strategies to ensure that advances in cancer engineering are equitable, inclusive, and address health disparities.
- Approaches to facilitate broad access to the output of cancer engineering to promote the delivery of high-quality care, particularly in community-based settings of care.
- Opportunities to develop and expand the cancer engineering workforce, including leadership development, multidisciplinary education and training, collaborative research approaches, and use of dissemination and implementation science strategies.

Planning Committee

Rohit Bhargava, Cancer Center at Illinois (Co-Chair)
Hedvig (Hedi) Hricak, Memorial Sloan-Kettering Cancer Center (Co-Chair)
Roderic Pettigrew, Texas A&M University (Co-Chair)
Bissan Al-Lazikani, MD Anderson Cancer Center
Justin E. Bekelman, University of Pennsylvania
Christina Chapman, Baylor College of Medicine
Rohan Fernandes, The George Washington University
Hadiyah-Nicole Green, Ora Lee Smith Cancer Research Foundation
Phillip Sharp, Massachusetts Institute of Technology
Bruce J. Tromberg, National Institute of Biomedical Imaging and Bioengineering



Strategies and Interventions to Strengthen Support for Family Caregiving and to Alleviate Caregiver Burden: A Workshop Date and Time Pending

Roundtable on Quality Care for People with Serious Illness National Cancer Policy Forum **Location Pending**

Workshop Background

A National Academies of Sciences, Engineering, and Medicine planning committee will organize a 1.5-day public workshop that will examine evidence-based interventions and strategies that effectively address the physical, mental, and financial burdens of caregiving for cancer and other serious illnesses, with an emphasis on the role of palliative care. The workshop will feature invited presentations and panel discussions to explore the following topics:

- Strategies and interventions to address the range of challenges associated with caregiving: psychological, emotional, physical, and financial/economic burden, including increased risk of suicide among caregivers
- The critical role of palliative care in interventions to ease caregiver burden
- Special needs of different caregiver populations (e.g., children, older adults)
- Ways to scale and spread successful programs and interventions
- Strategies to ensure that caregiver support interventions advance health equity
- Policy opportunities to support family caregivers, including employer/workplace-based policies and programs

The planning committee will develop the agenda for the workshop sessions, select and invite speakers and discussants, and moderate the discussions. A proceedings of the presentations and discussions at the workshop will be prepared by a designated rapporteur in accordance with institutional guidelines.

Planning Committee Pending

Workshop Website Pending





Improving Public Policies to Enhance Cancer Care and Outcomes: A Workshop September 29-30, 2025

National Cancer Policy Forum

The Keck Center Room 100 500 Fifth Street, NW Washington, DC 20001

Workshop Background

Public policy in the United States – at the federal, state, and local levels – influences cancer prevention strategies and the quality and accessibility of cancer care, and thus has a pivotal role in health outcomes across the cancer continuum. This workshop will explore examples of how public policies affect cancer care and health outcomes across the cancer continuum.

This workshop will feature presentations and panel discussions on topics such as:

- Examples of how federal, state, and local level policies affect cancer care and health outcomes for patients with cancer, such as: health policies; insurance policies; employment policies; social policies.
- Lessons learned from policy implementation that could inform future cancer policy development and implementation.
- Opportunities for policy improvement across the cancer care continuum, including early detection, diagnosis, treatment, palliative care, and survivorship care.
- Opportunities and challenges in generating evidence to support policy development and implementation.

Planning Committee Pending





Preventing Discrimination, Harassment, and Bullying: Policy for Participants in National Academies Activities

Purpose

To prohibit discrimination, harassment, and bullying for all participants in National Academies activities.

Applicability

All participants in all settings and locations in which the National Academies work and activities are conducted.

Preventing Discrimination, Harassment, and Bullying: Policy for Participants in National

Academies Activities

The National Academies of Sciences, Engineering, and Medicine (National Academies) are committed to the principles of diversity, inclusion, integrity, civility, and respect in all of our activities. We look to you to be a partner in this commitment by helping us to maintain a professional and cordial environment. All forms of discrimination, harassment, and bullying are prohibited in any National Academies activity. This policy applies to all participants in all settings and locations in which the National Academies work and activities are conducted, including committee meetings, workshops, conferences, and other work and social functions where employees, volunteers, sponsors, vendors, or guests are present.

Definitions

Discrimination is prejudicial treatment of individuals or groups of people based on their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws. **Sexual harassment** is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that creates an intimidating, hostile, or offensive environment.

Other types of harassment include any verbal or physical conduct directed at individuals or groups of people because of their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws, that creates an intimidating, hostile, or offensive environment.

Bullying is unwelcome, aggressive behavior involving the use of influence, threat, intimidation, or coercion to dominate others in the professional environment.

Reporting and Resolution

Any violation of this policy should be reported. If you experience or witness discrimination, harassment, or bullying, you are encouraged to make your unease or disapproval known to the individual at the time the incident occurs, if you are comfortable doing so. You are also urged to report any incident by:

- Filing a complaint through the National Academies Complaint Intake Form (https://nas.hracuity.net/webform/index/a5ed0226-f5e5-4da4-be0d-1daf8976f594), and/or
- Filing a complaint with the Office of Human Resources at 202-334-3400 or hrservicecenter@nas.edu, or
- Reporting the incident to an employee involved in the activity in which the member or volunteer is participating, who will then file a complaint with the Office of Human Resources.

Complaints should be filed as soon as possible after an incident. To ensure the prompt and thorough investigation of the complaint, the complainant should provide as much information as is possible, such as names, dates, locations, and steps taken. The Office of Human Resources will investigate the alleged violation in consultation with the Office of the General Counsel. If an investigation results in a finding that an individual has committed a violation, the National Academies will take the actions necessary to protect those involved in its activities from any future discrimination, harassment, or bullying, including in appropriate circumstances the removal of an individual from current National Academies activities and a ban on participation in future

Confidentiality

activities.

Information contained in a complaint is kept confidential, and information is revealed only on a need-to-know basis. The National Academies will not retaliate or tolerate retaliation against anyone who makes a good faith report of discrimination, harassment, or bullying.

Responsible Party

The Chief Operating Officer (COO) is responsible for oversight of and substantive changes to the policy.

Revised: 09/20/2024