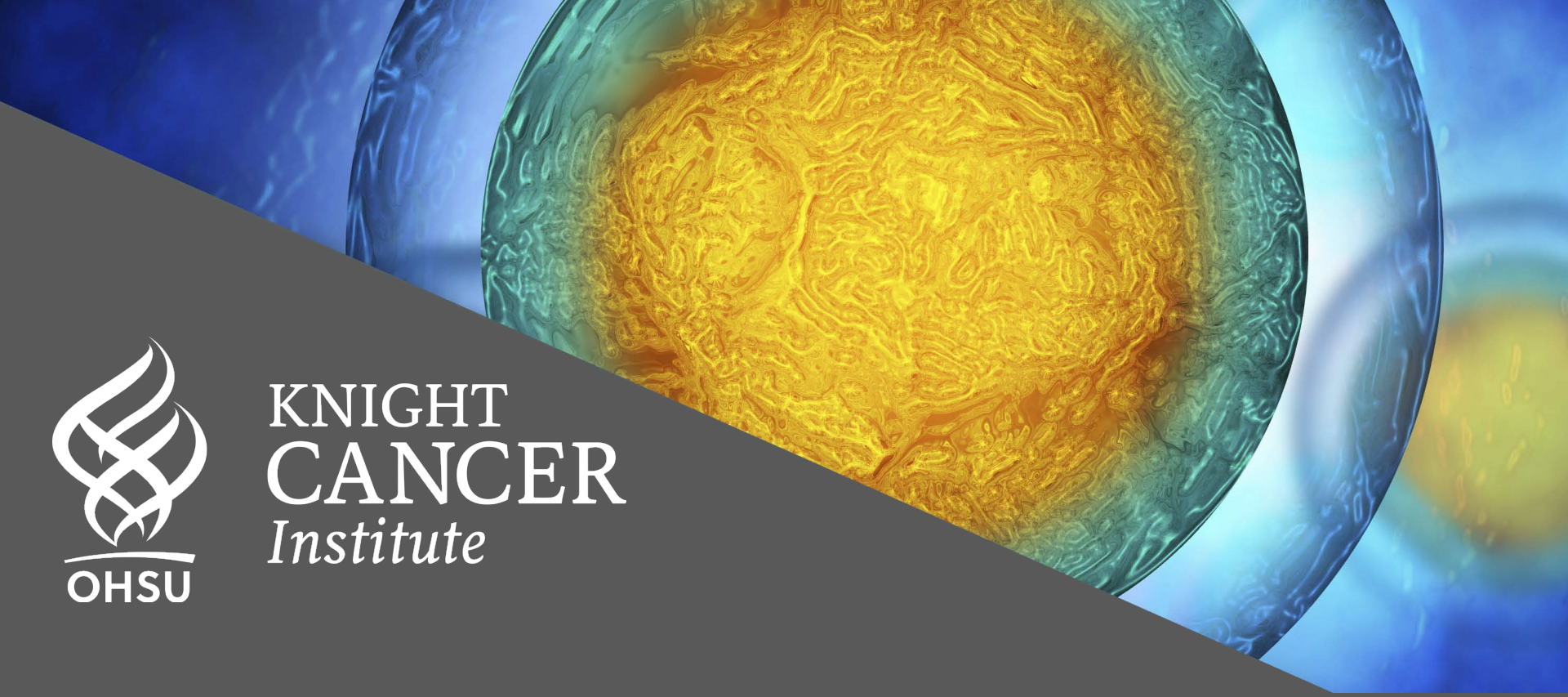


OHSU

KNIGHT CANCER *Institute*

Emerging Multi-Cancer Early Detection Strategies

Presented by Tomasz M. Beer, MD

Disclosures

- Consultant for AbbVie, Arvinas, Astellas Pharma, AstraZeneca, Bayer, Bristol-Myers Squib, Constellation, Grail Inc., Janssen, Myovant Sciences, Pfizer, Sanofi, Sapience Therapeutics
- Stock ownership in Arvinas, and Salarius Pharmaceuticals
- Grant/research support from Alliance Foundation Trials, Astellas Pharma, Bayer, Boehringer Ingelheim, Corcept Therapeutics, Endocyte Inc., Freenome, Grail Inc., Harpoon Therapeutics, Janssen Research & Development, Medivation, Sotio, Theraclone Sciences/OncoResponse, and Zenith Epigenetics

OHSU KNIGHT CANCER *Institute*

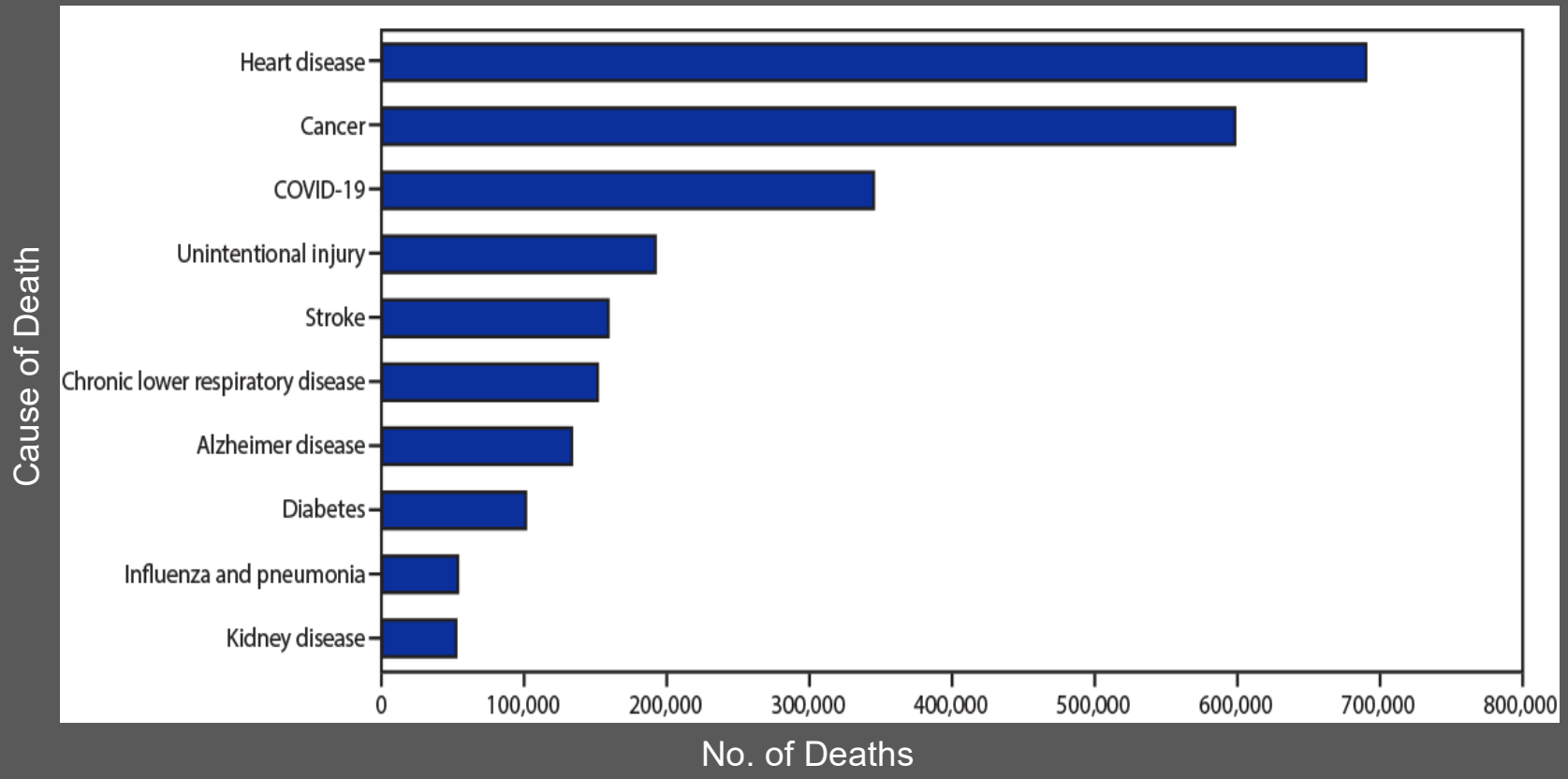
Learning Objectives

- To review currently available recommended cancer screening strategies
- To compare and contrast single cancer and multiple cancer early detection strategies
- To introduce blood-based multi-cancer early detection technologies
- To review current results from multi-cancer early detection clinical trials

OHSU KNIGHT CANCER *Institute*

Overall Burden of Cancer in the US

10 leading causes of death in the US in 2020



Ahmad FB et al., *MMWR Morb Mortal Wkly Rep 2021*

OHSU KNIGHT CANCER *Institute*

Current Cancer Screening Guidelines

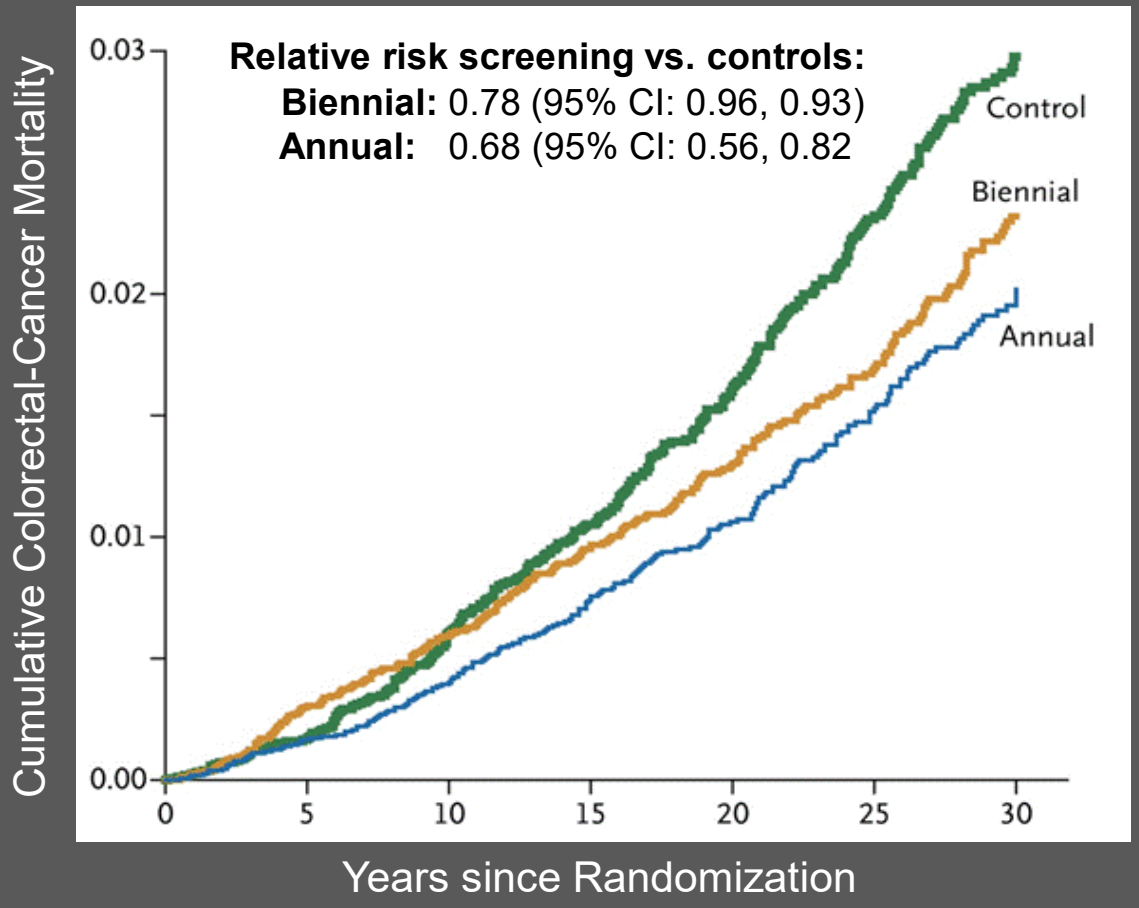
Cancer	Screening Modality	Age at First Screening	Interval
Lung	Low-dose CT	50 if meets high-risk criteria	Annually
Breast	Mammogram, Ultrasound, MRI	40-50	Every 1-2 years
Colorectal	<u>Stool-based methods</u> -FIT -Stool DNA -High-sensitivity guaiac-based fecal offcut blood test <u>Direct Visualization</u> -CT colonography -Colonoscopy -Flexible sigmoidoscopy	45-50	1-10 years, depending on test
Cervical	Pap test HPV test	21-25	3-5 years
Prostate	PSA Digital rectal exam	50-55	1-4 years

U.S. Preventive Services Task Force and American Cancer Society

OHSU KNIGHT CANCER Institute

Colorectal Cancer Mortality

Minnesota Colon Cancer Control Study: FOBT vs usual care

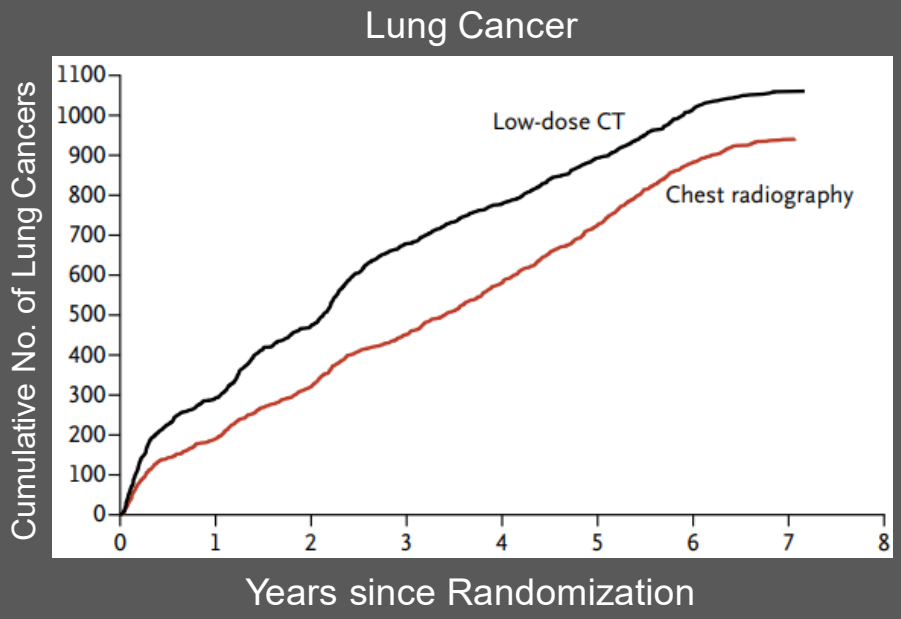


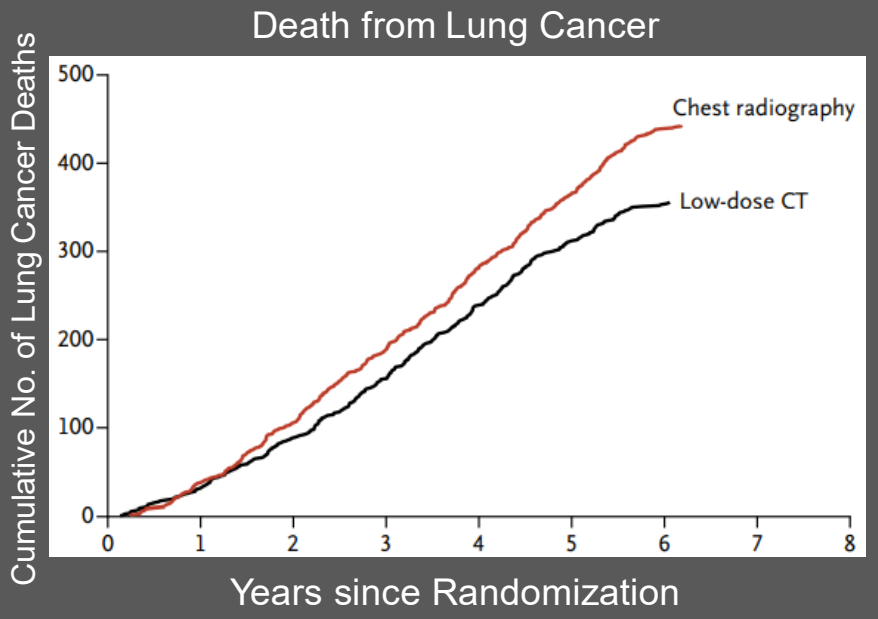
Shaukat A et al. *N Engl J Med*. 2013;369(12):1106-1114.

OHSU KNIGHT CANCER *Institute*

Lung Cancer Diagnosis and Mortality

Randomized trial of low-dose CT vs chest radiography in 53,454 high-risk individuals

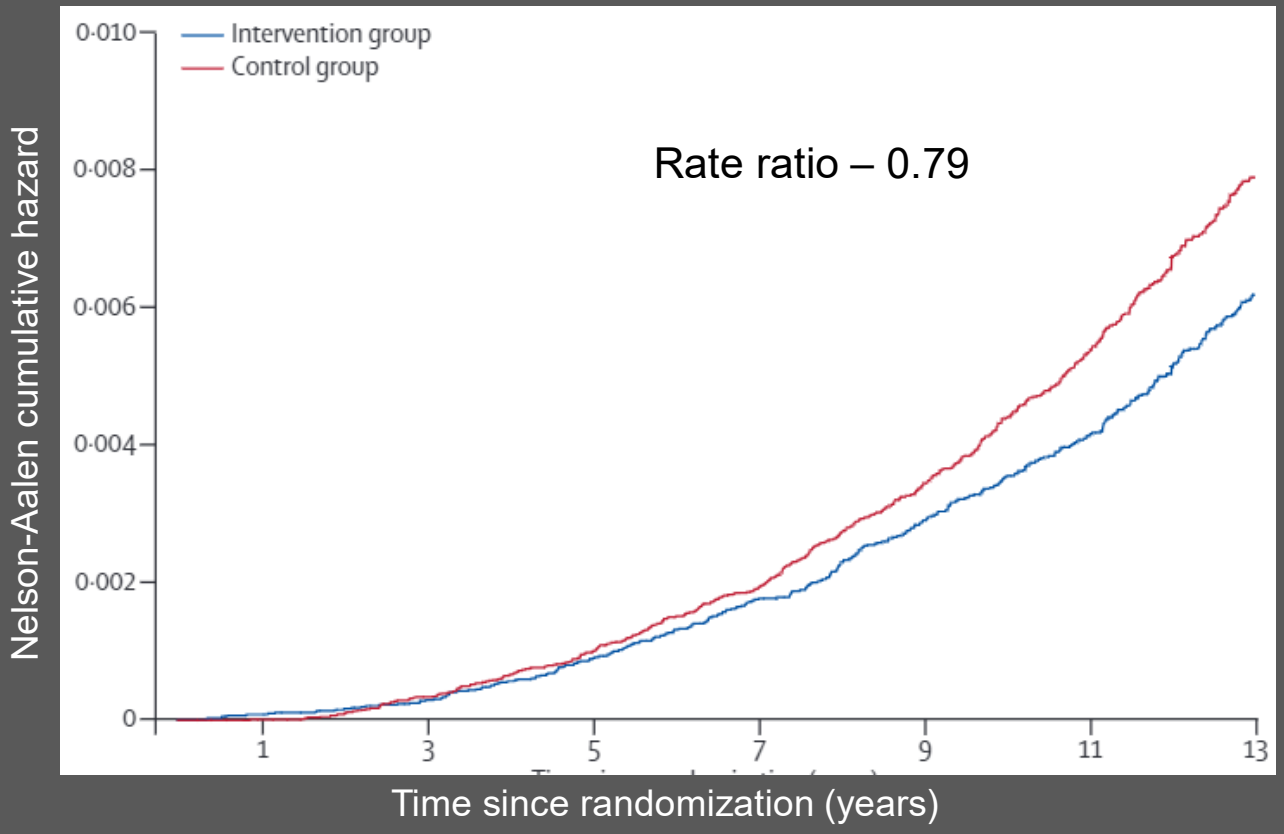




The National Lung Screening Trial Research Team. *N Engl J Med*. 2011;365(5):395-409.

OHSU KNIGHT CANCER *Institute*

Prostate Cancer Mortality
ERSPC



1 PCa death averted
Per 781 men screened
Per 27 PCa detected

Schroder F, *Lancet*, 2014

OHSU KNIGHT CANCER *Institute*

Single Cancer Screening
Test Performance

Cancer	Prevalence (%)	USPSTF Recommended Screening	Sensitivity (%)	Specificity (%)	Positive Predictive Value (%)	Compliance With Recommended Screening (%)[6]
Breast[1]	0.6	Biennial mammography, women ages 55–79	87	89	4.4	78.3
Cervical[2]	<0.1	Triennial cytology or quinquennial cytology/HPV test, women ages 21–65	95	85.5	<1%	80
Colorectal[3]	0.65	Decennial Colonoscopy	*Reference*	*Reference*	*Reference*	69.7
		Triennial Stool-based screening (Cologuard)	92.3	86.6	3.7	
		Annual Stool-based screening (FIT)	73.8	94.9	8.7	
Lung[4]	1.1 (high risk)	Annual low-dose CT for high-risk persons ages 55–80[5]	85	87	6.9	14

CT, computed tomography; FIT, fecal immunochemical test; HPV, human papillomavirus; USPSTF, United States Preventive Services Task Force.
[1]USPSTF. 2016. Lehman, et al. *Radiology*. 2017;283(1):49-58. [2]Kim, et al. *JAMA. 2018;320(7):706-714.* [3]USPSTF. 2017. United States Food and Drug Administration Premarket Approval P130017. Accessed March 26, 2019. Cologuard Test. Available from www.cologuardtest.com/hcp/crc-screening-redefined. Accessed March 26, 2019. [4]Pinsky et al Ann Intern Med. 2015 April 7; 162(7): 485–491. [5]Pinsky. *J Med Screen*. 2012;19(3):154-156. Recommendation for lung screening limited to high-risk smoking population, which accounts for less than 33% of all lung cancers [6] Compliance from BRFSS Prevalence & Trends Data. 2015. [accessed Aug 12, 2020]. URL: https://www.cdc.gov/brfss/brfssprevalence/ except LDCT from Zahnd, et al. *Am J Prev Med* 2019;57(2):250–255.

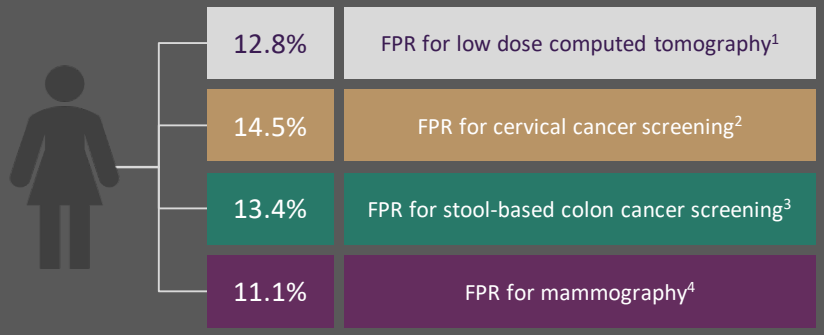
OHSU KNIGHT CANCER *Institute*

Cumulative False Positive Rate From Single-Cancer Screening

Existing paradigms are associated with a high cumulative false positive rate

- Each false positive from a screening test would require follow-up tests or interventions with attendant risks
- These risks are not well understood at the population level because current paradigms only evaluate one cancer at a time
- An opportunity for a multi-cancer approach to early cancer detection

A 60-year-old female with a history of smoking screened for 4 cancers would have a 43% false positive rate (FPR)*



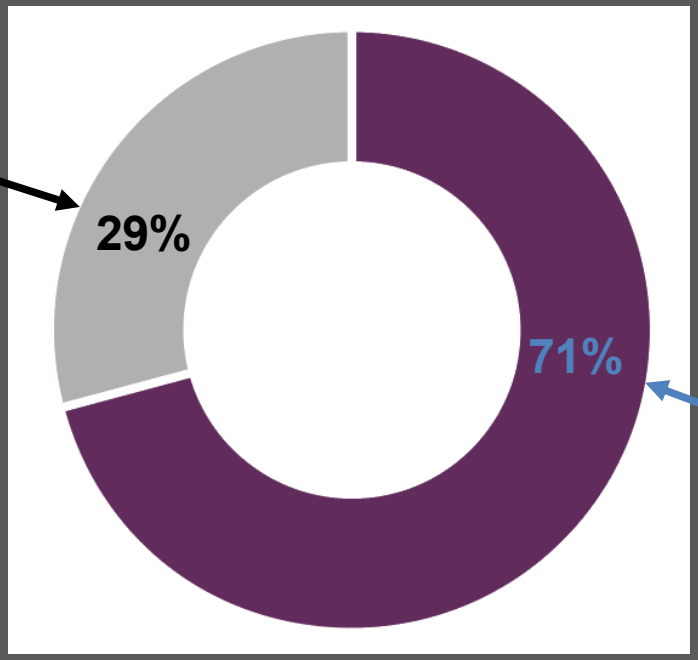
*Assumes eligibility for all 4 tests.

[1]Pinsky PF, et al. *Ann Intern Med*. 2015;162:485-491. [2]Kim, et al. *JAMA*. 2018;320(7):706-714. [3]US Food and Drug Administration PMA P130017: FDA summary of safety and effectiveness data. August 11, 2014. Accessed March 21, 2020. [4]Lehman CD, et al. *Radiology*. *2017*;283:49-58.

OHSU KNIGHT CANCER *Institute*

Cancers Without Recommended Screening Tests Account for 71% of Cancer Deaths in the United States in 2020[1,2]

Deaths due to cancers with recommended screening tests (prostate, breast, cervical, colorectal and lung)



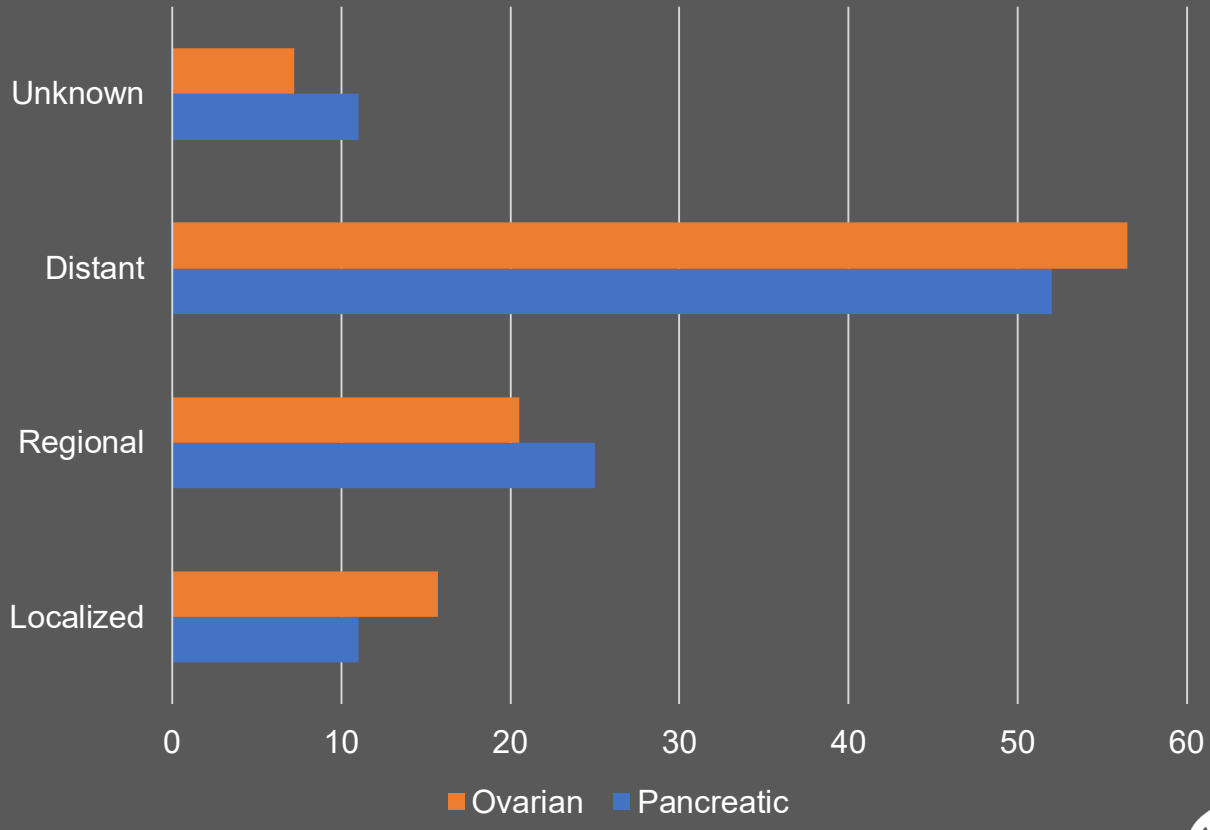
Deaths due to cancers without recommended screening tests

https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2020/cancer-facts-and-figures-2020.pdf

OHSU KNIGHT CANCER Institute

Lethal Cancers Without Effective Screenings Are Often Diagnosed Late

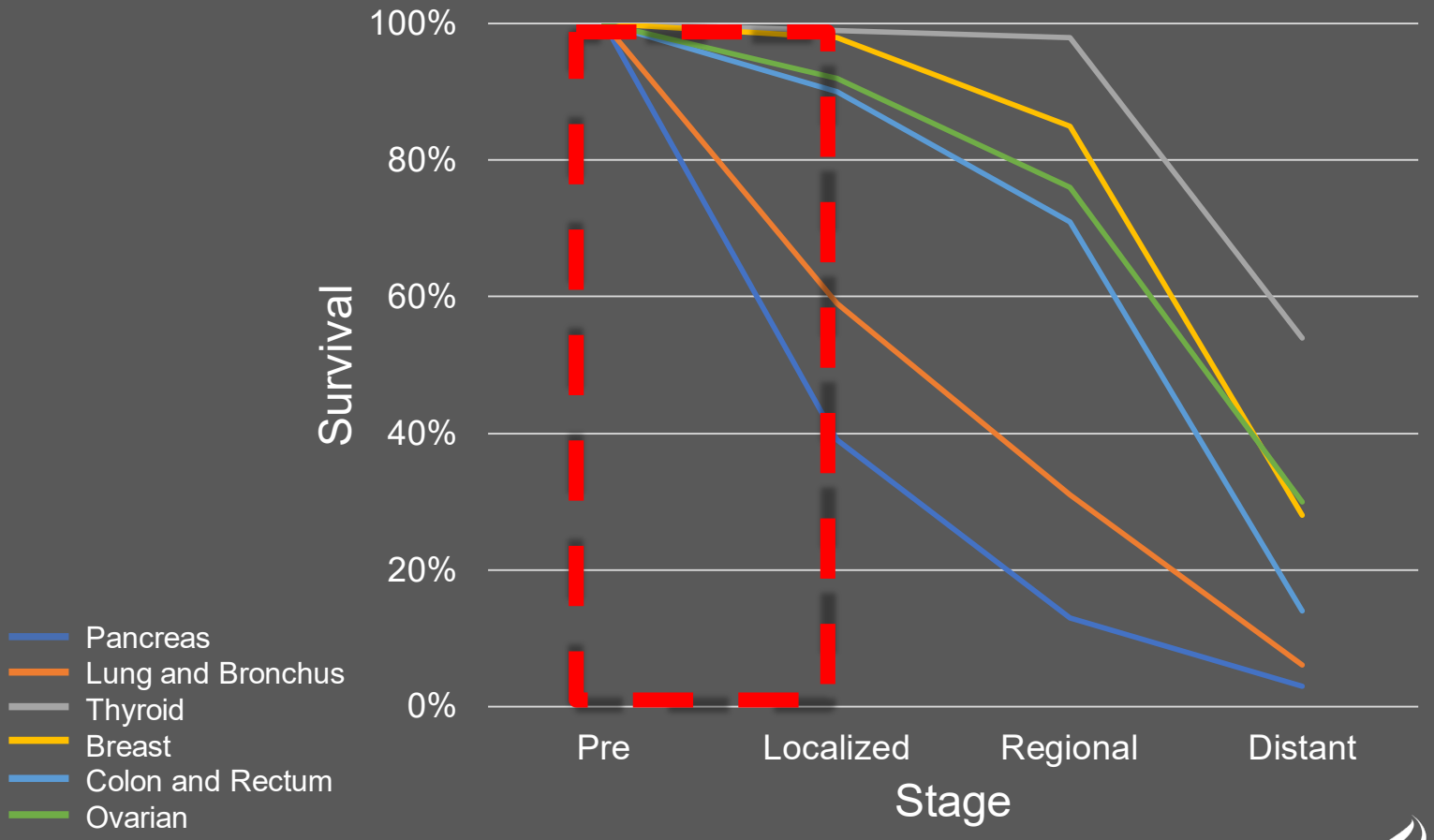
Stage distribution of SEER Incidence Cases



SEER 18 (2008-2017). Available at: *seer.cancer.gov*.

OHSU KNIGHT CANCER *Institute*

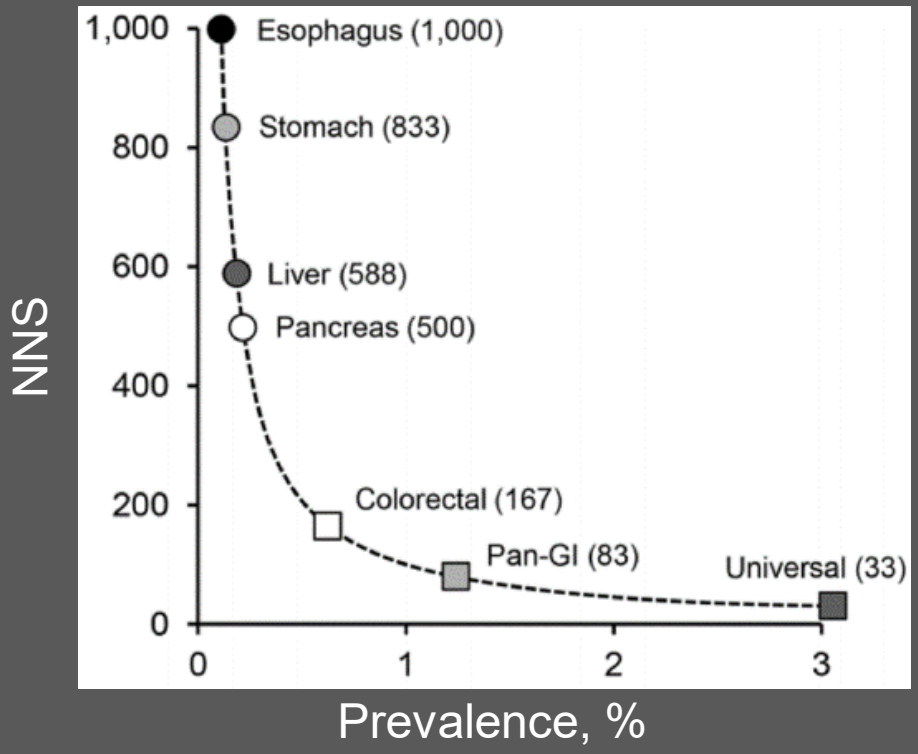
5-year Relative Survival By Stage at Diagnosis



SEER 18 (2010-2016). Available at: *seer.cancer.gov*.

OHSU KNIGHT CANCER *Institute*

Low Prevalence of Individual Cancers Presents a Challenge to Early Detection

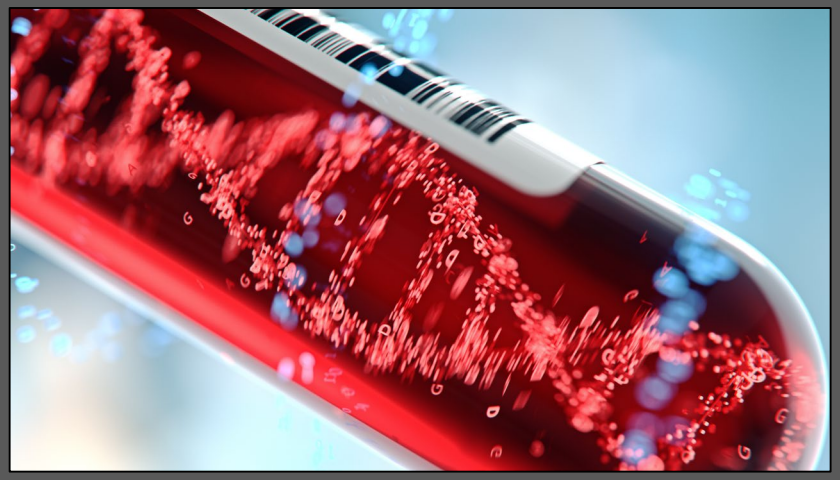


Ahlquist DA. *NPJ Precis Oncol*. 2018;2:23.

OHSU KNIGHT CANCER *Institute*

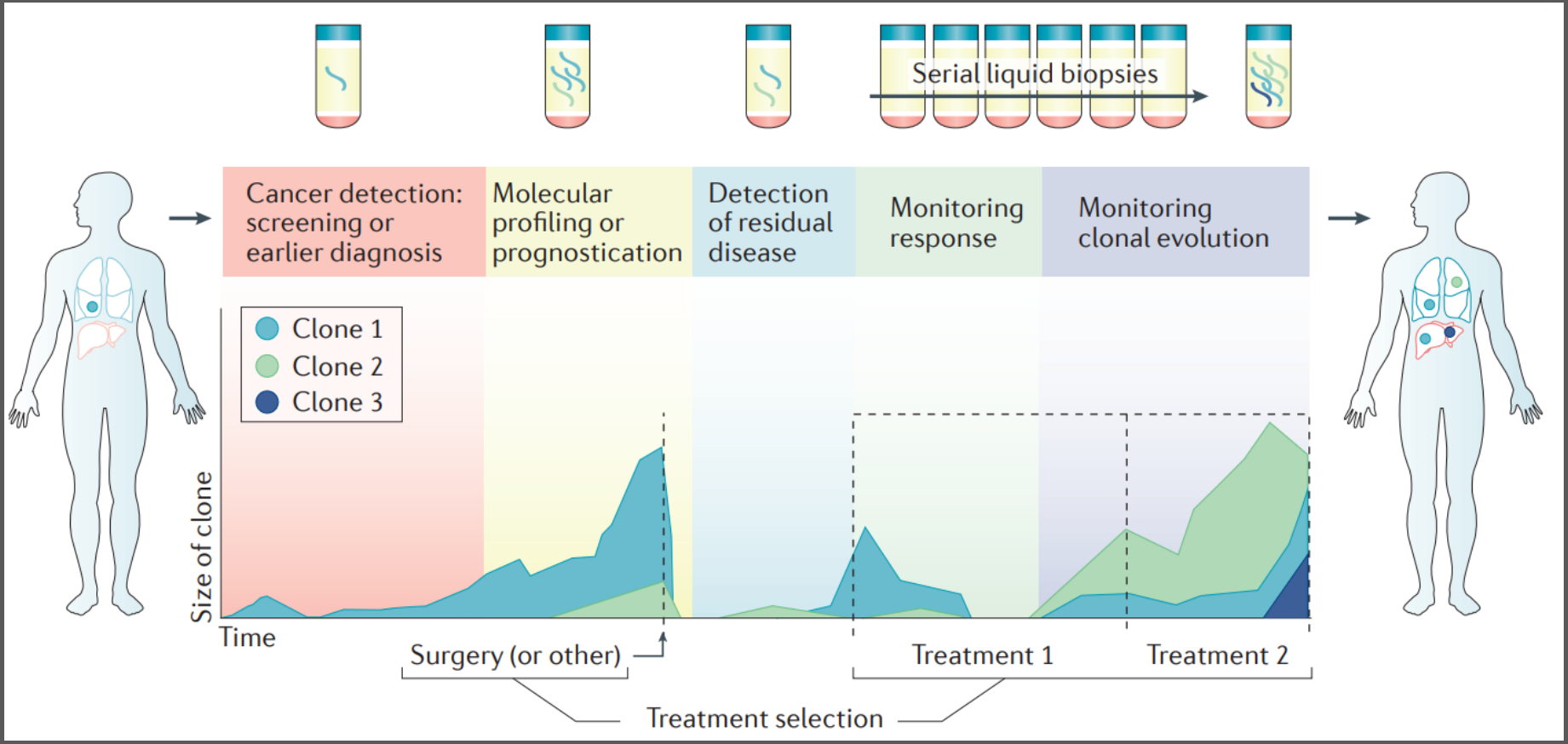
Integrated Multi-omic Analysis of Circulating Cancer Biomarkers Provides a Potential Avenue for Revolutionizing Early Detection of Cancer

- A range of biomarkers can be comprehensively analyzed
  - DNA (mutations, methylation)
  - Proteins
  - Extracellular Vesicles / Exosomes
  - CTCs and CTC clusters
  - RNA, tumor educated platelets, etc.
- Tissue of origin identification is possible
  - DNA methylation patterns



OHSU KNIGHT CANCER *Institute*

Promise and Applications of Circulating Tumor-derived Material

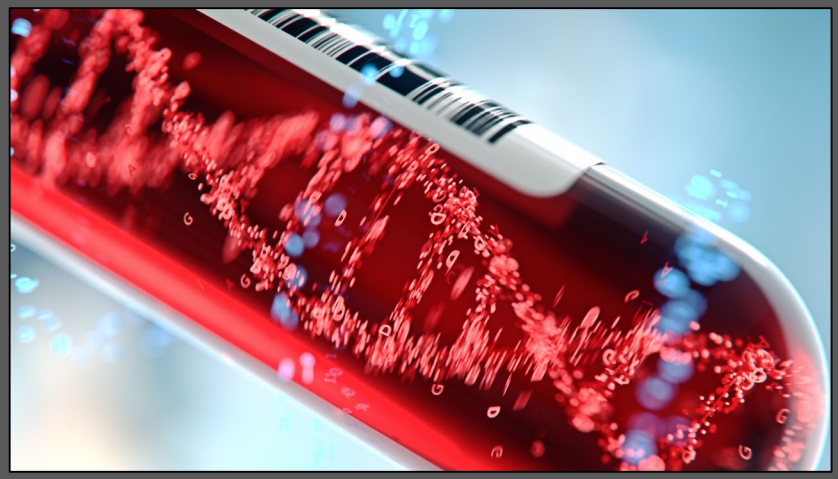


Wan JCM et al. *Nat Rev Cancer*. 2017;17(4):223-238.

OHSU KNIGHT CANCER *Institute*

Development Of Blood-Based Cancer Early Detection Tests

- Assay development
- Test development and initial validation
  - Case control design
- Prospective studies measured against current SOC tests
  - Testing simultaneously with a standard screening procedure
  - Focus on single cancer
  - No return of results
- Prospective studies with return of results
  - Multi-cancer application



OHSU KNIGHT CANCER *Institute*

Key Clinical Studies

CancerSEEK Test:

- Evaluates the levels of 8 cancer proteins and the presence of cancer gene mutations

Galleri Test:

- Targeted methylation assay

OHSU KNIGHT CANCER *Institute*

CANCER-SEEK

DETECT-A Study

Multicenter prospective trial in 10,006 women ages 65-75 women not known to have cancer to examine the feasibility and safety of CancerSEEK coupled with PET-C imaging

Science

RESEARCH ARTICLES

Cite as: A. M. Lennon *et al.*, *Science* 10.1126/science.abb9601 (2020).

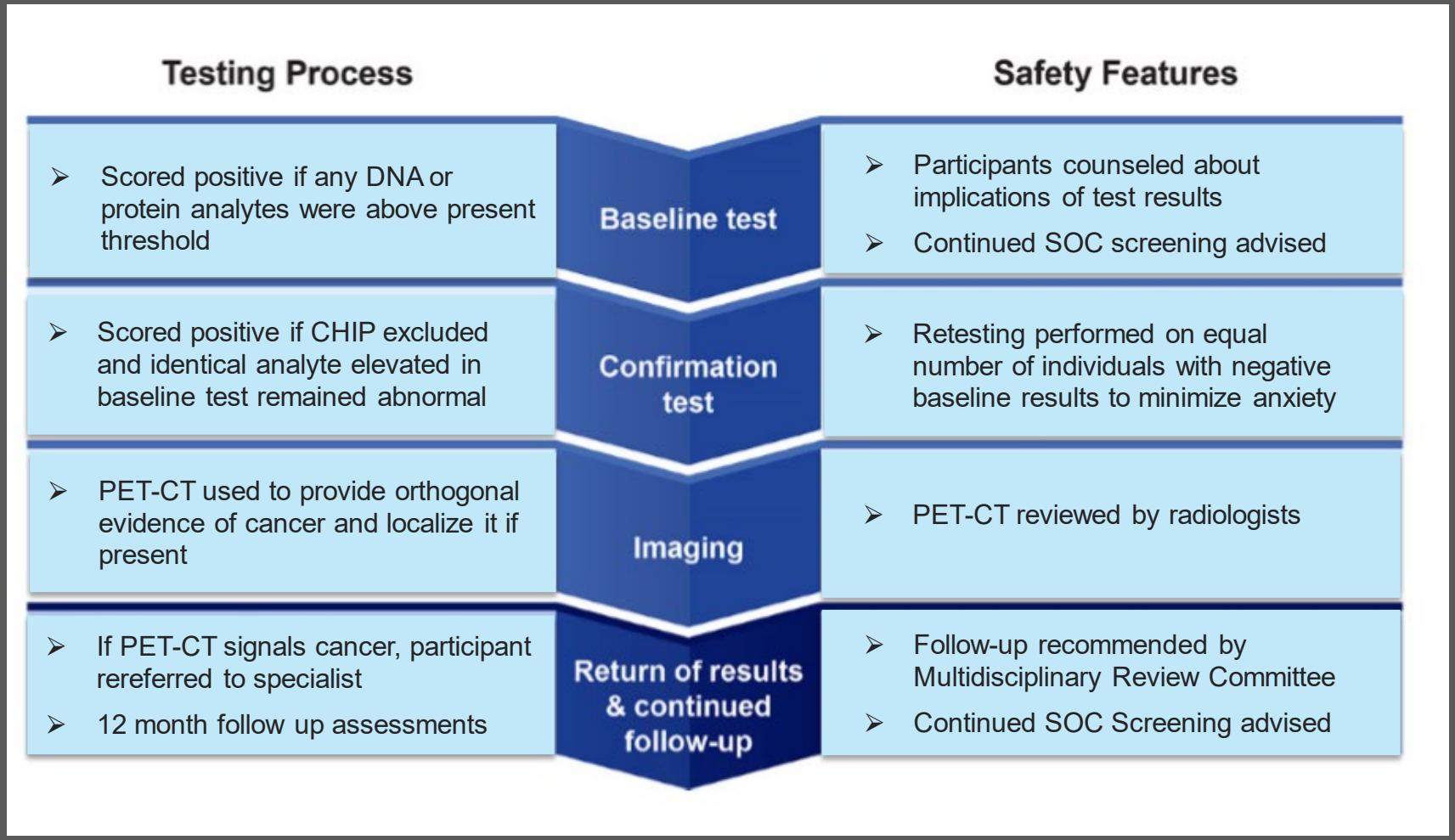
Feasibility of blood testing combined with PET-CT to screen for cancer and guide intervention

Anne Marie Lennon[1,4,10*], Adam H. Buchanan[11*], Isaac Kinde[12*], Andrew Warren[12,13*], Ashley Honushefsky[11*], Ariella T. Cohain[12], David H. Ledbetter[11], Fred Sanfilippo[14], Kathleen Sheridan[11], Dillenia Rosica[11], Christian S. Adonizio[11,16], Hee Jung Hwang[12], Kamel Lahouel[1,6], Joshua D. Cohen[1,2,3,4,5], Christopher Douville[1,3], Aalpen A. Patel[11], Leonardo N. Hagmann[12], David D. Rolston[11], Nirav Malani[12], Shibin Zhou[1,3,4], Chetan Bettegowda[1,3,8], David L. Diehl[11], Bobbi Urban[12], Christopher D. Still[11], Lisa Kann[12], Julie I. Woods[11], Zachary M. Salvati[11], Joseph Vadakara[11], Rosemary Leeming[11], Prianka Bhattacharya[11], Carroll Walter[11], Alex Parker[12], Christoph Lengauer[12,13], Alison Klein[1,4,15], Cristian Tomasetti[1,6,7], Elliot K. Fishman[1,4,10], Ralph H. Hruban[1,4,9], Kenneth W. Kinzler[1,3,4†], Bert Vogelstein[1,2,3,4†], Nickolas Papadopoulos[1,3,4,9†]

Lennon AM et al. Science. 2020;369(6499):eabb9601.

OHSU KNIGHT CANCER Institute

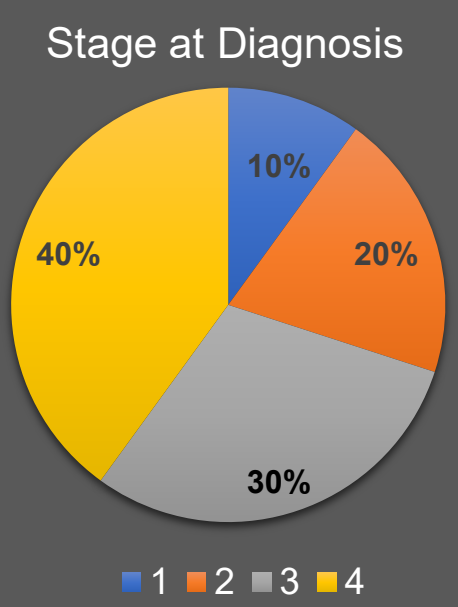
DETECT-A Testing Process

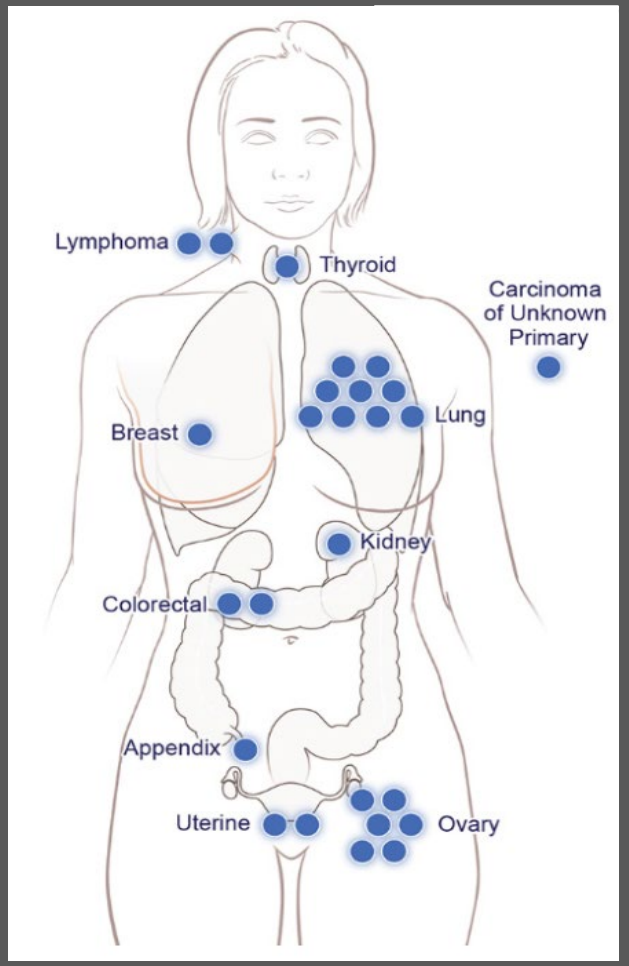


OHSU KNIGHT CANCER Institute

DETECT-A Results

- 9911 women screened
- 490 positive on baseline test
- 127 positive on both tests
- 26 cancers detected





OHSU KNIGHT CANCER Institute

DETECT-A Results (cont.)

- 9911 women screened
- 490 positive on baseline test
- 127 positive on both tests
- 26 cancers detected

- 101 participants had imaging based on false-positive test
- 22 invasive diagnostic procedures after false-positive test

- 24 cancers detected with routine screening
- 46 cancers detected with neither approach

OHSU KNIGHT CANCER *Institute*

Test Performance

Performance with and without confirmation test and 95% confidence intervals

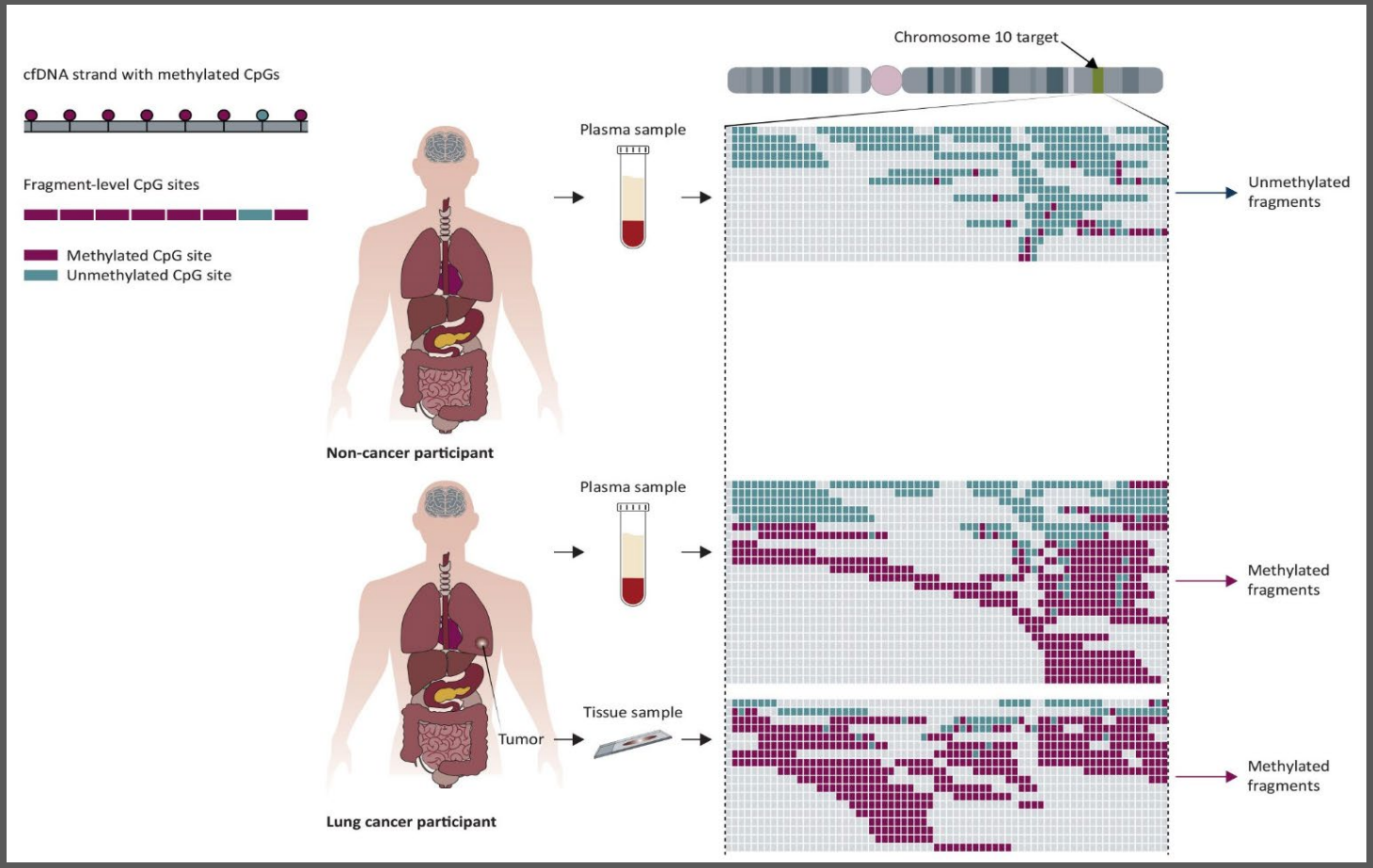
	Blood Test Without Confirmation	Blood Test With Confirmation
Positive Predictive Value	5.9% (4.0-8.4)	19.4% (13.1-27.1)
Specificity	95.3% (94.9-95.7)	98.9% (98.7-99.1)
Negative Predictive Value	99.3% (99.1-99.4)	99.3% (99.1-99.4)
# Needed to Screen to Detect 1 Cancer	342 (238-510)	381 (260-583)
Sensitivity		
All Cancers	30.2 (21.3-40.3)	27.1% (18.5-37.1)
Cancers with SOC Screening	27.5% (15.9-41.7)	23.5% (12.8-37.5)
Cancers with no SOC Screening	33.3% (20.0-49.0)	31.1% (18.2-46.6)

OHSU KNIGHT CANCER *Institute*

GALLERI

OHSU KNIGHT CANCER Institute

Methylation Biology Differentiates Cancer From Non-Cancer



cfDNA, cell-free DNA. Figure from Liu MC, et al. *Ann Oncol*. 2020;31(6):745-759. DOI: 10.1016/j.annonc.2020.02.011.

OHSU KNIGHT CANCER *Institute*

Characteristics of GRAIL's Targeted Methylation Panel

Approximately 100,000 genomic regions

Panel Version 1.0

	Size/Count
Targeted regions (Mb)	17.1
Probe regions covering target regions (Mb)	31.3
Probes (n)	1,121,325
Probe size (bp)	120 (60 bp overlap)
CpGs (n)	1,116,720

Number of CpGs

Probe	CpGs (n)
Hypo	363,033
Hyper	585,181
Binary	218,506
Total	1,116,720

Type of Genomic Region

	CpGs (n)	%
1-5 kb upstream of start codon	193,818	17
Promoter	278,872	24
Introns	500,996	43
Exons	292,798	25
Intron/Exon Boundaries	247,752	21
5' UTR	134,144	11
Between genes	182,174	16
Not annotated	1,817	<1

UTR, untranslated region.

OHSU KNIGHT CANCER Institute

Grail MCED Clinical Trials

CCGA[1]	STRIVE	PATHFINDER	SUMMIT
NCT02889978	NCT03085888	NCT04241796	NCT03934866
15,254 participants ♂♀	99,308 participants ♀	~6,200 participants ♂♀	~25,000 participants ♂♀
Demonstrate feasibility of detecting cancer and predicting tissue of origin with minimal false positives	Confirm performance in a population with no known active cancer diagnosis	Evaluate implementation of test in clinical practice	Additional performance in a population with no known active cancer diagnosis and clinical utility in a high-risk population

[1]Circulating Cell-Free Genome Atlas study.

OHSU KNIGHT CANCER *Institute*

Multi-Cancer Early Detection Test

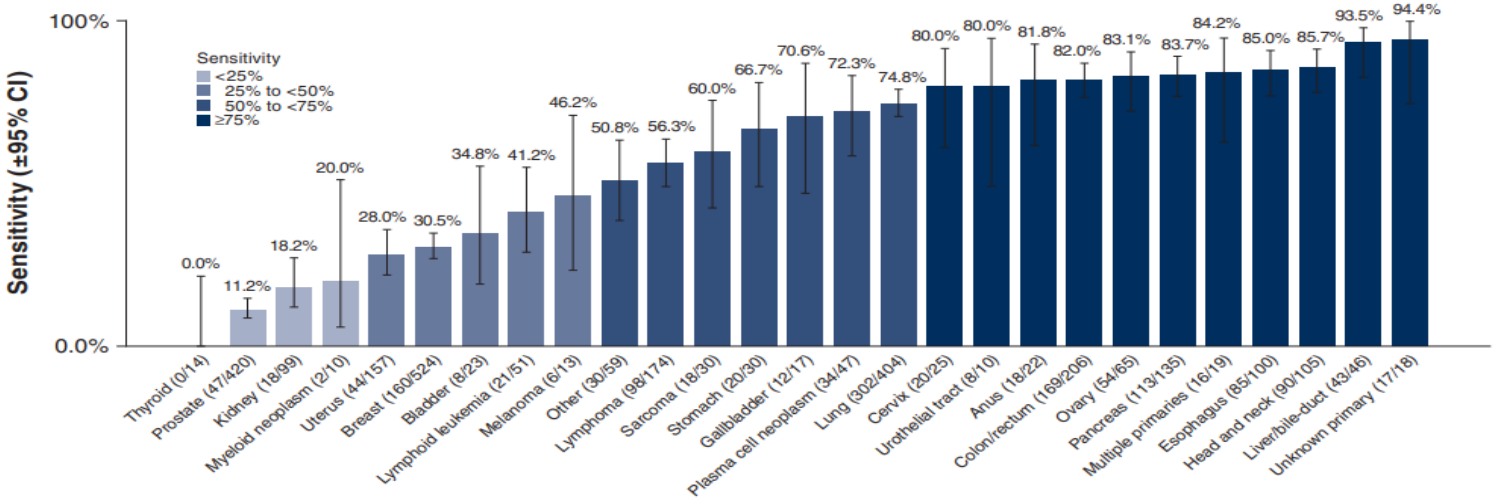
Sensitivity and Specificity

Overall sensitivity and specificity

	Cancer	Non-cancer	Total
	2823	1254	4077
Test positive	1453	6	1459
Test negative	1370	1248	2618
	Sensitivity = 1453/2823 51.5% (49.6%-53.3%)	Specificity = 1248/1254 99.5% (99.0%-99.8%)	

Two-sided 95% Wilson confidence intervals were calculated.

Sensitivity by cancer class

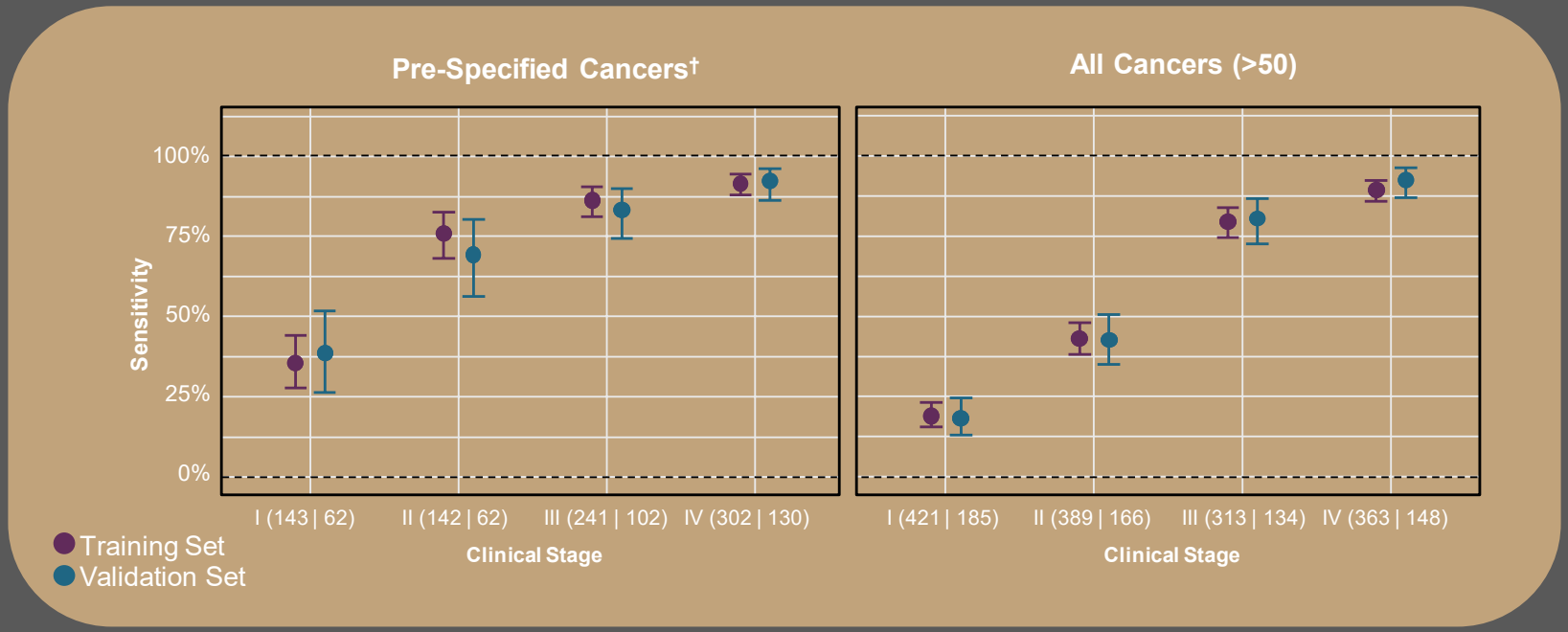


Klein EA et al. Ann Oncol. 2021; S0923-7534(21)02046-9.

OHSU KNIGHT CANCER *Institute*

Circulating Cell-free Genome Atlas (CCGA) Sub-Study 2

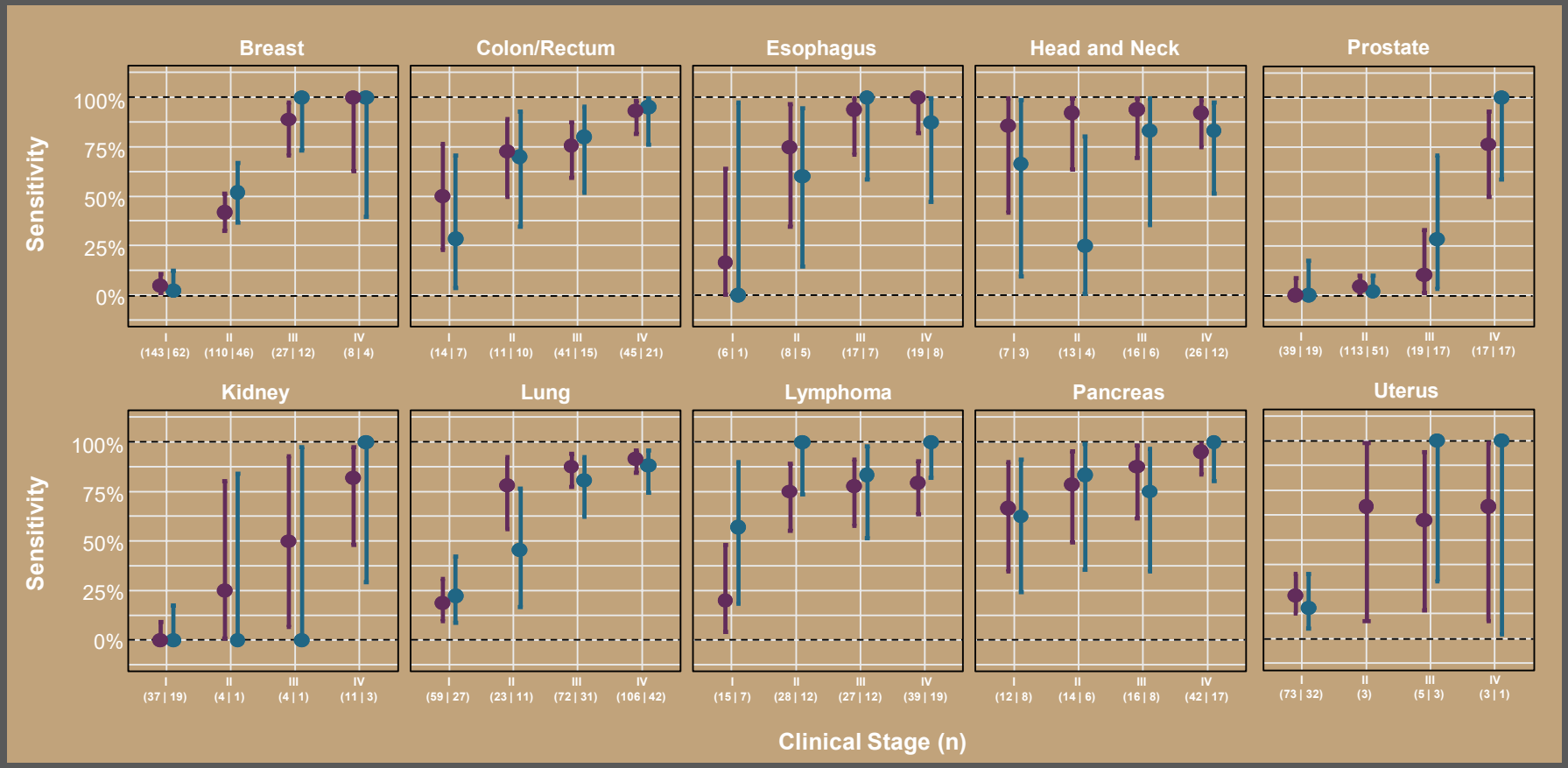
- 76.4% (71.6-80.7%) sensitivity in pre-specified† cancers (validation set)
- 54.9% (51.0-58.8%) overall sensitivity in >50 cancers (validation set)
- Single fixed false positive rate (0.7%) across all cancers



†Anus, bladder, colon/rectum, esophagus, head and neck, liver/bile-duct, lung, lymphoma, ovary, pancreas, plasma cell neoplasm, stomach.
Plot excludes unstaged cancers.
Liu MC, et al. *Ann Oncol*. 2020;31(6):745-759. DOI: 10.1016/j.annonc.2020.02.011.

OHSU KNIGHT CANCER *Institute*

Circulating Cell-free Genome Atlas (CCGA) Sub-Study 2



[a]Includes cancers with >50 samples.

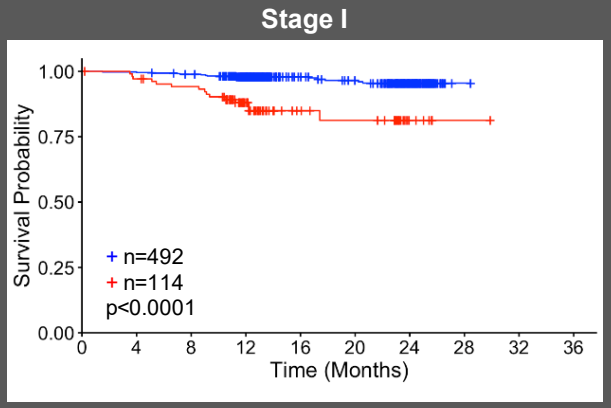
Liu MC, et al. Ann Oncol. 2020;31(6):745-759. DOI: 10.1016/j.annonc.2020.02.011.

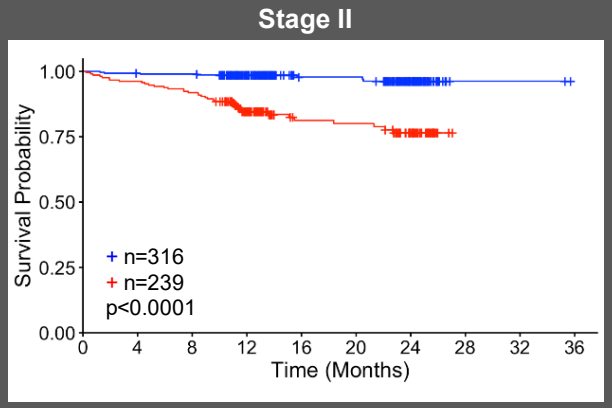
OHSU KNIGHT CANCER Institute

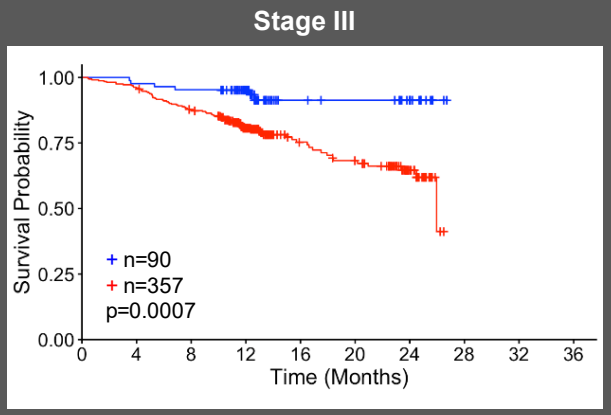
Galleri-Detected Cancers Have a Worse Prognosis than not Detected Cancers

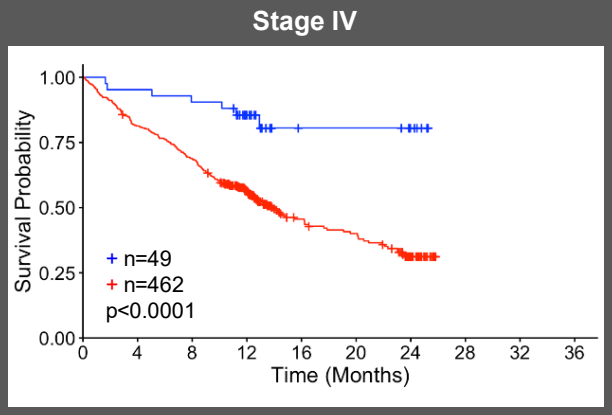
Overall survival by stage

Not Detected
Detected









Xiaoji Chen et al. Clin Cancer Res 2021;27:4221-4229

OHSU KNIGHT CANCER Institute

Key Performance Features of Galleri Test

Demonstrated in CCGA Case Control Study

> 50	Cancers detected
43%	Positive predictive value (modeled)
0.7%	False-positive rate
44%	Sensitivity stages I-III for all cancer
67%	Sensitivity stages I-III for prespecified cancers representing ⅔ of cancer mortality in US
93%	Rate tissue of origin predicted correctly[1]

> 50 cancers, including unscreened cancers

- Anorectal
- Bladder/urothelial
- Esophageal
- Gastric
- Head and neck
- Liver/bile-duct
- Lymphoid neoplasm[2]
- Melanoma
- Myeloid neoplasm
- Ovarian
- Pancreas/gallbladder
- Plasma cell neoplasm
- Renal
- Sarcoma
- Seminoma
- Skin
- Testicular
- Thyroid
- Uterine
- Vaginal
- Vulva

Recommended screening programs*

- Breast
- Cervical
- Colorectal
- Lung
- Prostate

CCGA, Circulating Cell-free Genome Atlas.

Liu MC, et al. *Ann Oncol*. 2020;31(6):745-759. DOI: 10.1016/j.annonc.2020.02.011.

[1]Based on tissue of origin class assigned in 96% of cases where cancer was detected.

[2]Lymphoid neoplasm includes lymphoma and leukemia. Leukemia includes chronic lymphocytic leukemia and hairy cell leukemia

*USPSTF A, B, or C rating.

OHSU KNIGHT CANCER *Institute*

The Pathfinder Study: Assessment of A Multi-Cancer Early Detection Test In Clinical Practice

Prospective, multicenter, interventional, return-of-results study (NCT04241796)

Study Objectives

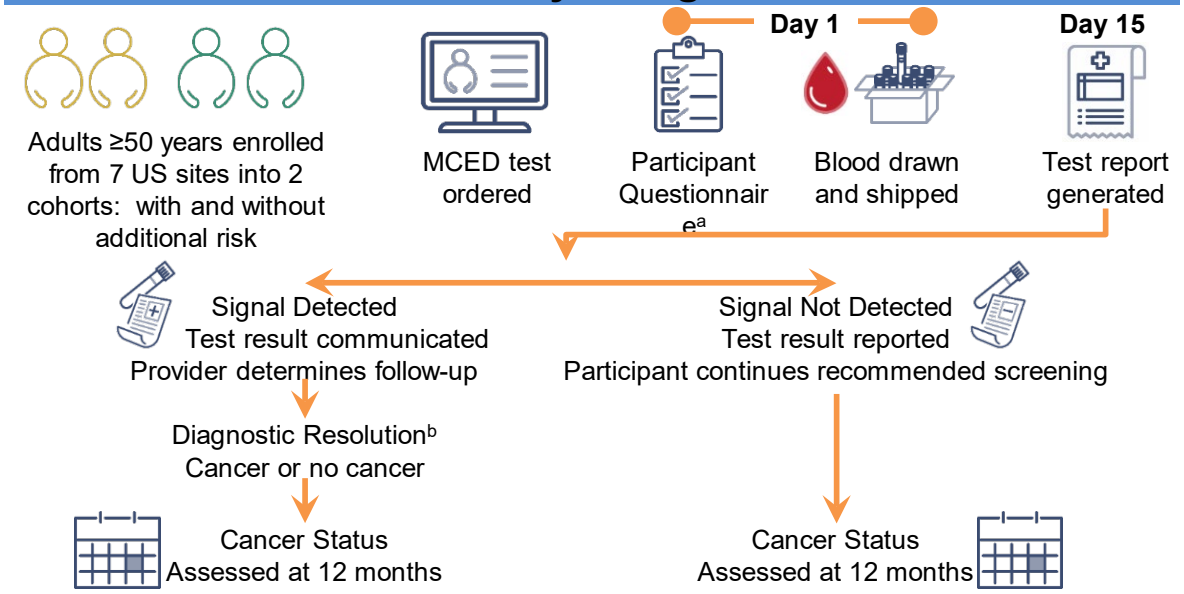
Primary

- Assess extent of diagnostic testing required to achieve diagnostic resolution following a "signal detected" test result

Secondary

- Evaluate test performance
- Assess participant-reported outcomes and perceptions of the MCED test

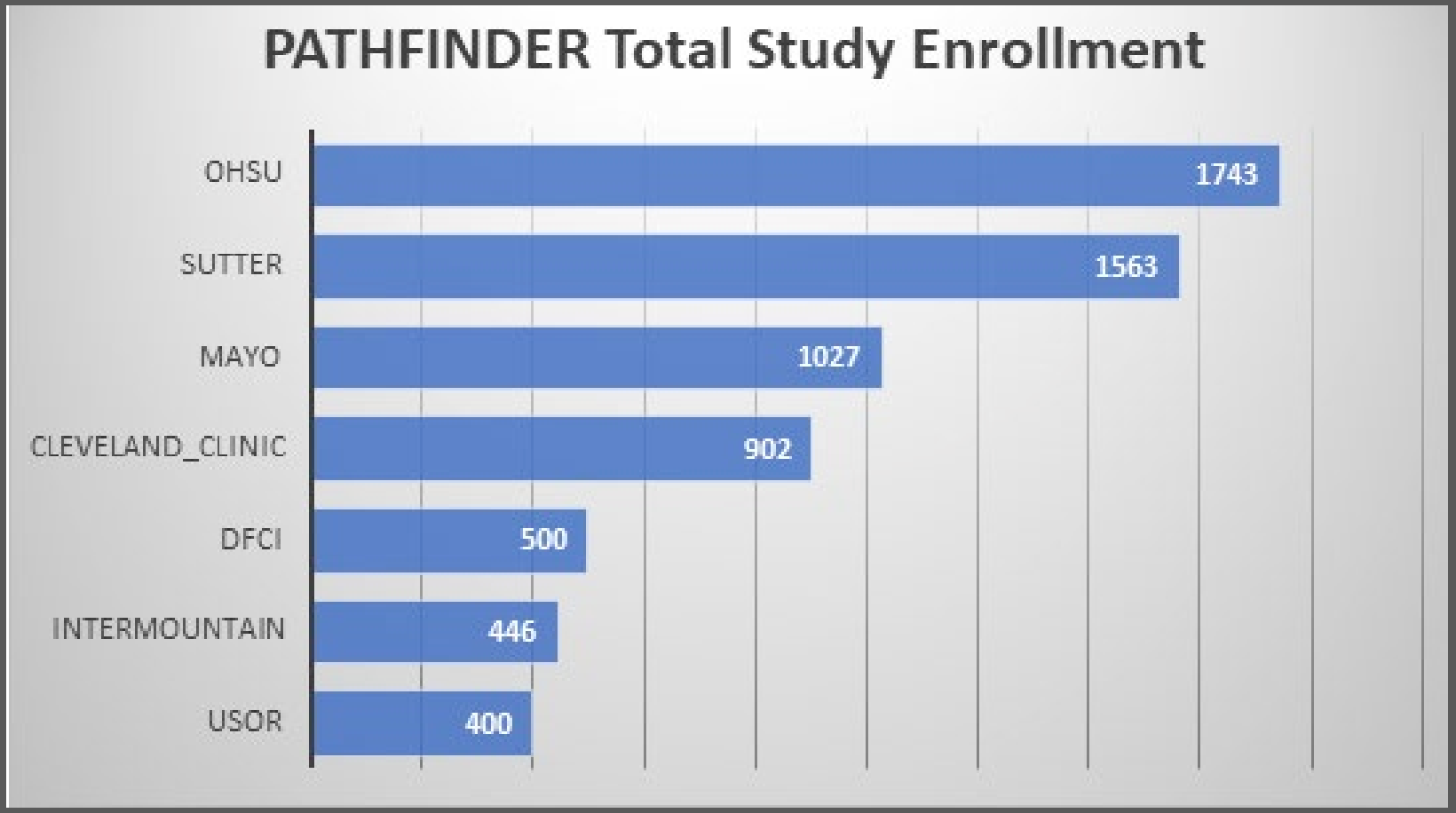
Study Design



[a]Also collected at other timepoints during the study.
[b]Defined as date when study team determines to end diagnostic evaluation triggered by a "signal detected" test result.
MCED, multi-cancer early detection.

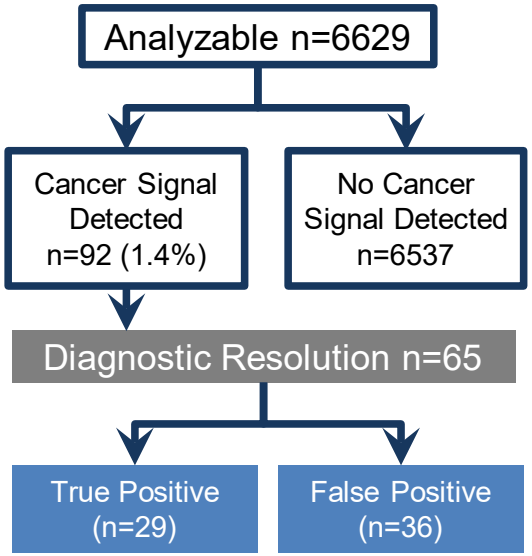
OHSU KNIGHT CANCER Institute

Grail Pathfinder Study: Overall Study Accrual



OHSU KNIGHT CANCER Institute

Interim Primary Outcome: Extent of Diagnostic Testing



	True Positive n=27*	False Positive n=36	
All Imaging/Invasive Procedures	2.0 (1.5, 3.0)	1.5 (1.0, 2.2)	2.0 (1.0, 3.0)
All Imaging Tests	1.0 (1.0, 1.5)	1.0 (1.0, 2.0)	1.0 (1.0, 2.0)
Functional	1.0 (0, 1.0)	1.0 (0, 1.0)	1.0 (0, 1.0)
Anatomic	1.0 (0, 1.0)	1.0 (0, 1.0)	1.0 (0, 1.0)
All Invasive Procedures*	1.0 (1.0, 1.0)	0 (0, 0.2)	0 (0, 1.0)
Minimally Invasive	1.0 (0.5, 1.0)	0	0 (0, 1.0)
Surgical	0	0	0
Clinical Lab Tests	3.0 (1.0, 5.5)	3.0 (1.0, 6.0)	3.0 (1.0, 6.0)
Days to Resolution	50.0 (27.0, 76.5)	49.0 (30.2, 153.8)	50.0 (28.0, 91.0)

Most participants with diagnostic resolution had at least 1 imaging test (57/63; 90%)
More true positives (21/27; 78%) than false positives (9/36; 25%) had at least 1 invasive procedure
Most invasive procedures were minimally invasive (88%)

*2 participants with 'signal detected' MCED test result (true positives) were excluded from the diagnostic workup analysis because diagnostic testing was initiated before MCED test results were returned.
As of March 2021, 30 participants had ≥1 invasive procedure (26 minimally invasive, 2 surgical, 2 both).

OHSU KNIGHT CANCER Institute

Interim Secondary Outcome: Test Performance

	With Additional Risk	Without Additional Risk	Total
Cancer Signal Detection, No.	n=3695	n=2934	N=6629
Detected, No. (%)	**56 (1.5)**	**36 (1.2)**	**92 (1.4)**
True Positive	20 (0.5)	9 (0.3)	29 (0.4)
False Positive	15 (0.4)	21 (0.7)	36 (0.5)
No Current Diagnostic Resolution	21 (0.6)	6 (0.2)	27 (0.4)
Not Detected	3639 (98.5)	2898 (98.8)	6537 (98.6)
PPV for Cancer Signal Detection, No.	n=35	n=30	n=65
% (95% CI)	**57.1 (40.9–72.0)**	**30.0 (16.7–47.9)**	**44.6 (33.2–56.7)**
CSO Prediction Accuracy	n=19[a]	n=8[a]	n=27[a]
First CSO, % (95% CI)	**84.2 (62.4–94.5)**	**87.5 (52.9–99.4)**	**85.2 (67.5–94.1)**
First/Second CSO	100 (83.2–100.0)	87.5 (52.9–99.4)	96.3 (81.7–99.8)

Cancer signal was detected in 1.4% of all analyzable participants

Nearly half with diagnostic resolution had confirmed cancer, for an estimated 45% PPV

Cancer signal origin was predicted with high accuracy

Data as of March 2021. CSO, cancer signal origin; PPV, positive predictive value. [a]Excludes 1 participant with unknown cancer type and 1 with indeterminate CSO from the true positive set.

OHSU KNIGHT CANCER Institute

Cancer Characteristics of True Positive Set (n=28)

Cancer Type Diagnosed	Clinical AJCC Stage of New Cancers					Recurrent Cancers		First Predicted Cancer Signal Origin
	I	II	III	IV	Other	Local	Distant	
Colon or rectum				1	1 Unknown			Upper GI Tract (SIV pt); Colon/Rectum (unk pt)
Head and Neck		1		1				Head and Neck
Liver, bile duct	1		1					Liver, bile-duct
Lung			1					Lung
Lymphoid leukemia					2 NA			Lymphoid Neoplasm
Lymphoma	2	3	1	2				Lymphoid Neoplasm
Ovary, peritoneum/FT			1					Uterus (ovary second CSO)
Pancreas		1						Pancreas/Gallbladder
Plasma cell neoplasm					1 NA			Plasma Cell Neoplasm
Prostate				1				Indeterminate
Small intestine	1							Colon/Rectum (upper GI second CSO)
Waldenstrom macroglobulinemia					1 NA			Lymphoid Neoplasm
Breast cancer							4	3 Breast 1 Breast (first CSO), lymphoid (second)
Prostate cancer						1		Lymphoid (first CSO), prostate (second)
Total	**4**	**5**	**4**	**5**	**5**	**1**	**4**	

AJCC, the American Joint Committee on Cancer version 8; CSO, cancer signal origin; FT, fallopian tube; GI, gastrointestinal; NA, not applicable; pt, participant; SIV, stage IV; unk, unknown.

OHSU KNIGHT CANCER *Institute*

CEDAR Clinical Trials

Status at CEDAR	Disease Location	Study	Population	Study Design
● Enrolled 1743	Multi	GRAIL Pathfinder	Age>50, Cohort A: elevated risk (smoking, hx of CA, genetic markers); Cohort B: non-elevated risk	Prospective Interventional with return of results
● Enrolling 500+	Multi	GRAIL Pathfinder II	Age>50, new diversity goals	Prospective Interventional with return of results
● Enrolled 5	UNK	GRAIL Galleri-EAP	CA with unknown tissue of origin For compassionate use in late stage treatment	Pilot Interventional with return of results
● Enrolling 229	Colorectal	Freenome PREEMPT	Age 45-85, colonoscopy as SOC	Prospective observational
● Enrolling 117	Multi	Freenome Danube	Age 45-85, dx of IBD, or untreated CA, or no CA	Case Control
● Pending	Lung	Delfi Lung	Age >50, 20 pk/day history	Prospective observational
● Pending	Multi	Exact	Age>50, untreated cancer or control group	Prospective observational

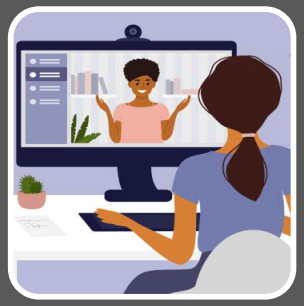
OHSU KNIGHT CANCER Institute

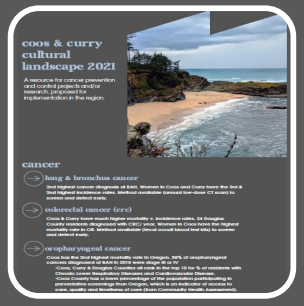
The Pathfinder 2 Study

- Multicenter Early Detection Blood Test
- Compared to Pathfinder 1:
  - Refined test
  - Recruitment goal of 20,000 over 18 months
    - 3,600 at OHSU
  - Diverse study population
- Population:
  - Age 50 or older
  - Did not participate in Pathfinder 1
  - No suspicion of cancer, or any cancer since 2018

OHSU KNIGHT CANCER *Institute*

Regional Research Assessment System





Community Preparation

Community stakeholders identified and data collected

Workgroup Formed

Review the data with a community perspective

Process Development

Create a cultural landscape summary of the region

Customize the submission process & forms

Local Advisory Council

Takes over full implementation of the process

Reviews proposals

Approves, suggests changes, or declines projects

OHSU Community Engagement team walks alongside the community

Community owns it!

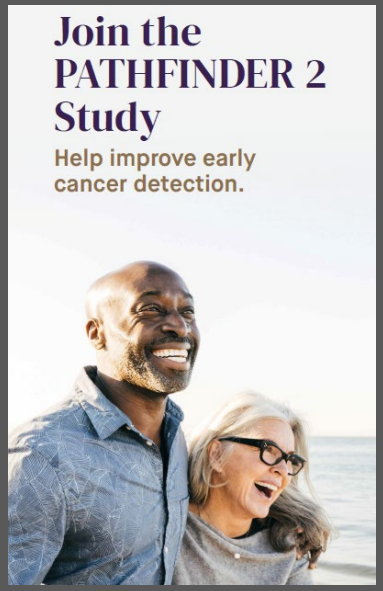
OHSU

KNIGHT CANCER *Institute*

2 Specific Stories of Bi-Directional Partnerships

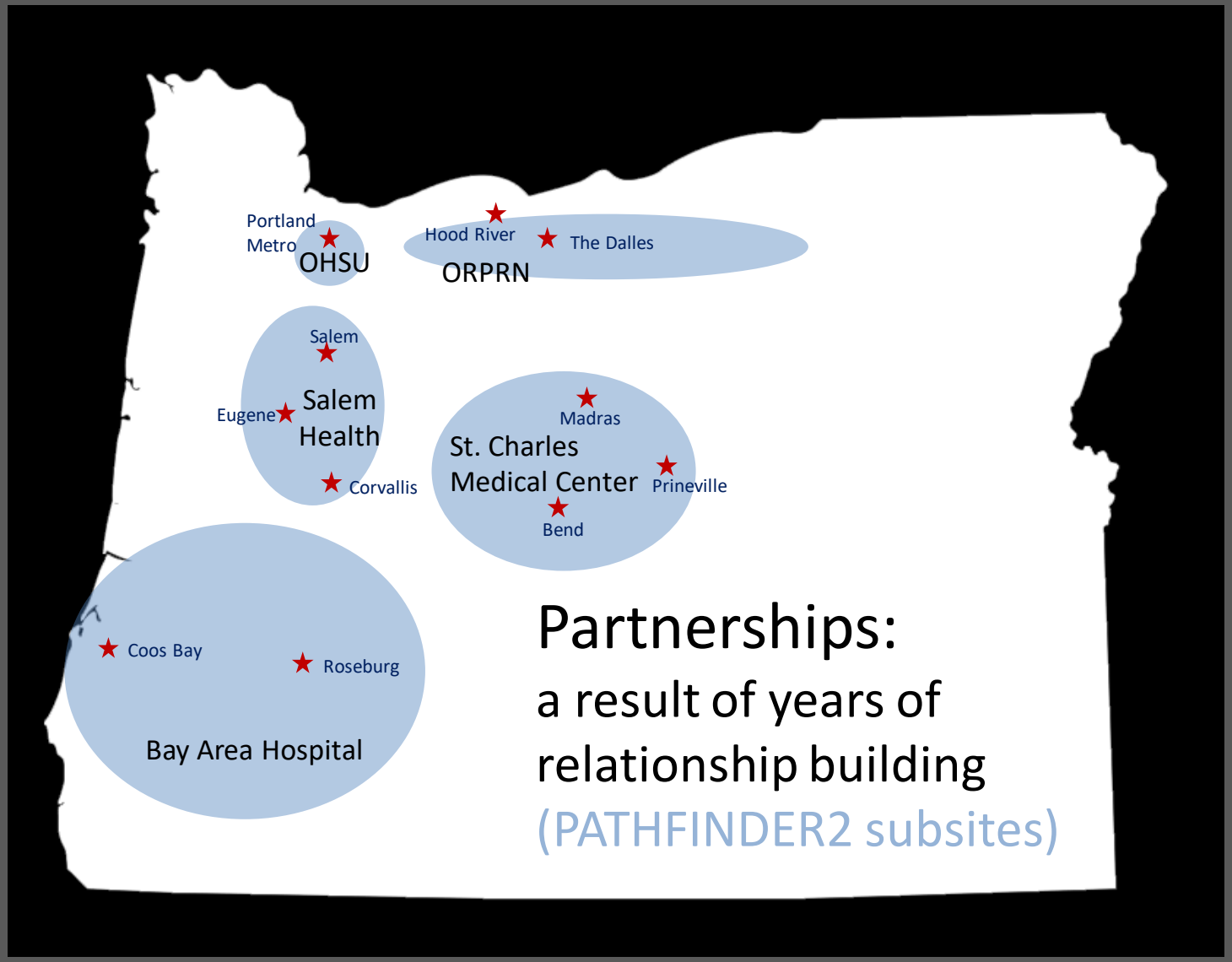
Rural Oregonians in Coos County take part in the Region Research Assessment System and implement the PATHFINDER2 interventional trial as a subsite with OHSU.

Knight Cancer Advisory Council representatives from the Portland Black community, trusted leaders, help spread the word about the trial which will benefit members of their community



THE NUMBERZ FM

OHSU KNIGHT CANCER Institute

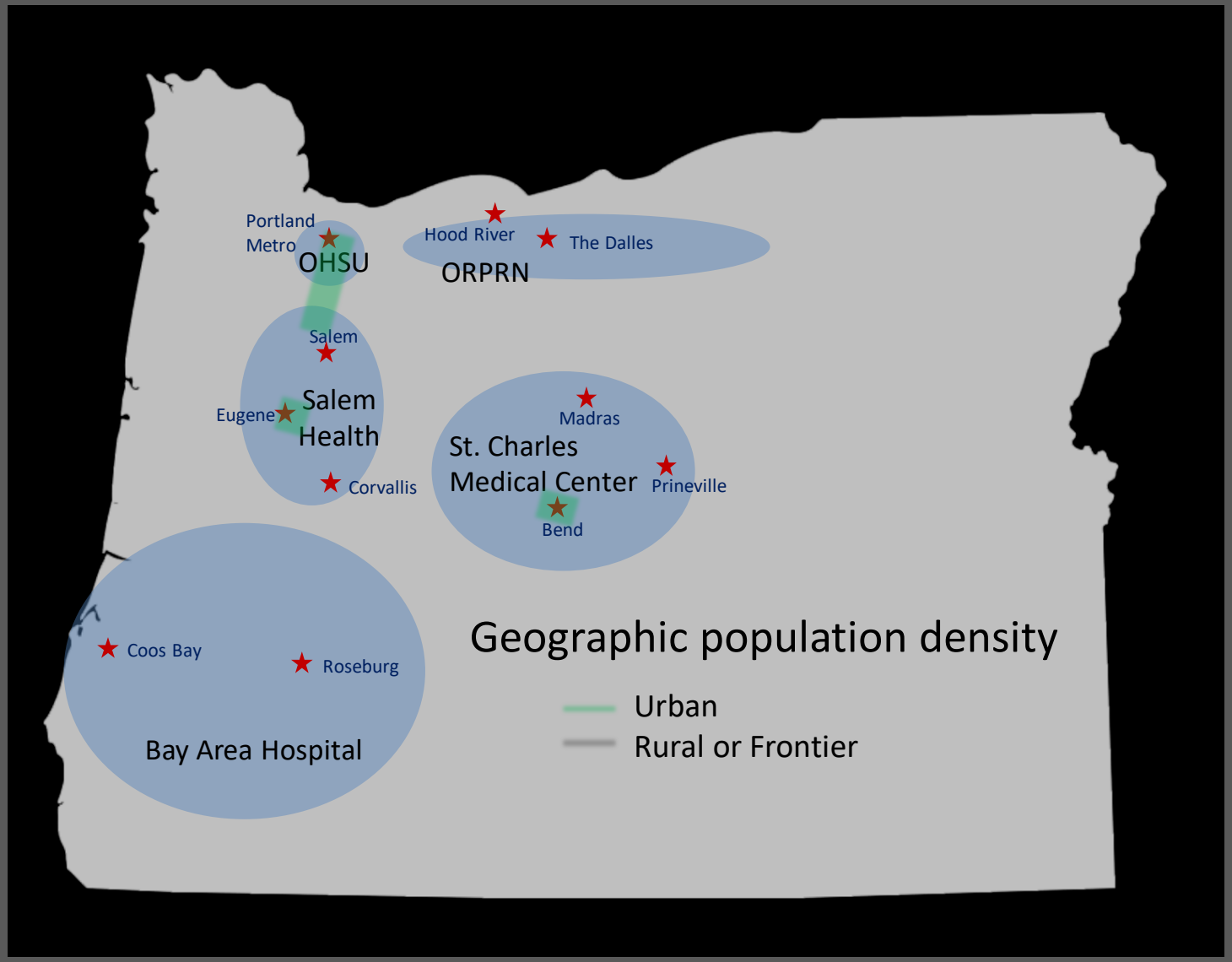


Partnerships:

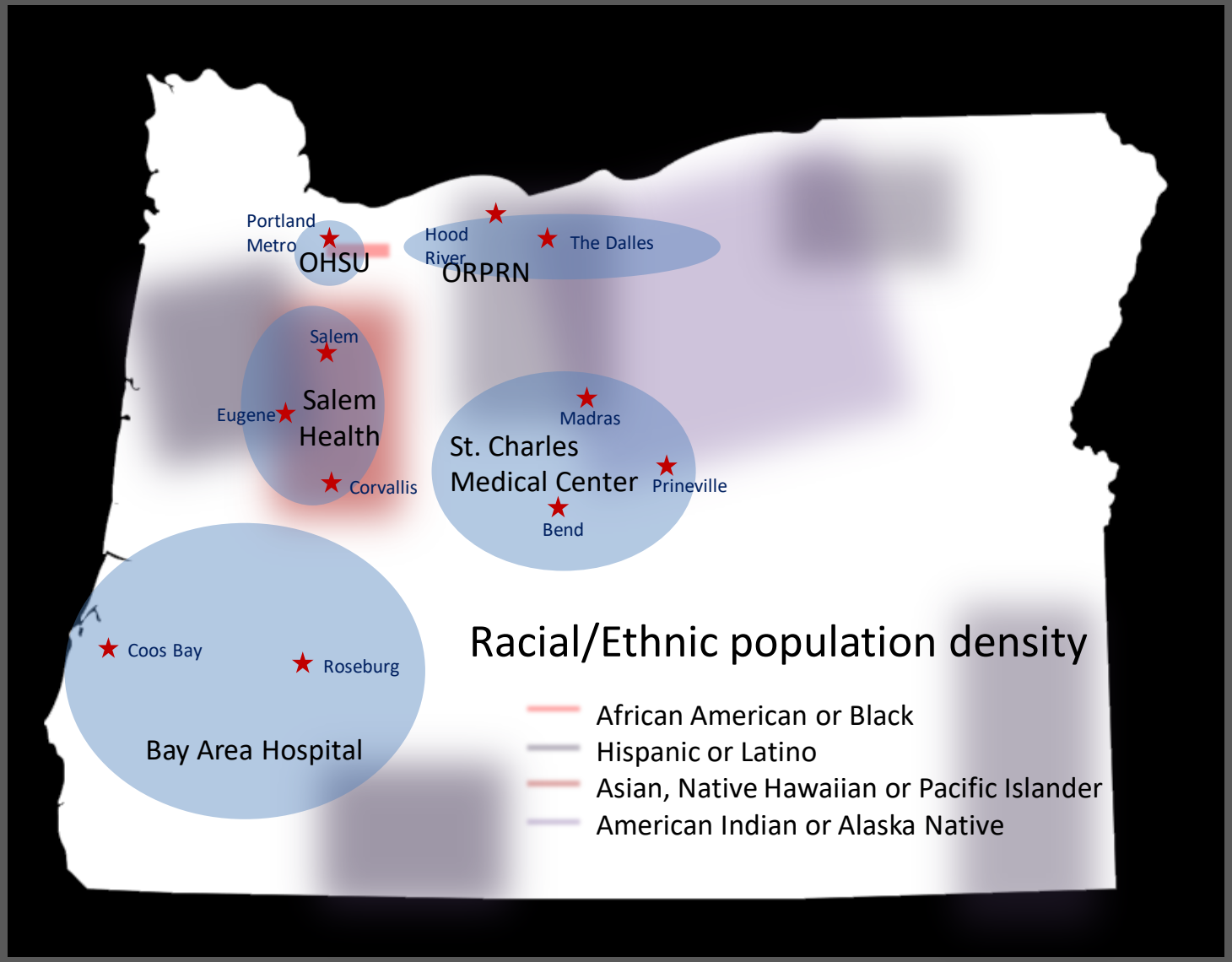
a result of years of relationship building

(PATHFINDER2 subsites)

OHSU KNIGHT CANCER *Institute*



KNIGHT CANCER Institute
OHSU



OHSU KNIGHT CANCER Institute

What Partnership May Look Like

- Subsite Contributes
  - Regional relationships and expertise for recruitment
  - Local blood draws and diagnostic work-up for signal positives (1%)
  - Medical Co-Investigator

Communities need to retain their patients, but might not have research capacity

OHSU has institutional recognition for Early Detection but lacks a diverse patient population

- OHSU Contributes
  - Pharma relationships
  - Contracting, IRB oversite, regulatory compliance
  - Participant enrollment and follow-up for signal negatives (99%)
  - Marketing

OHSU KNIGHT CANCER *Institute*

Pathfinder 2 Participation

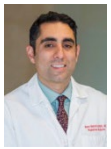
- More OHSU Employee Early Detection Days to come
- Contact us to participate and for more information!
  - Email: PATHFINDER@ohsu.edu
  - Phone: (503) 418-8150

OHSU KNIGHT CANCER Institute

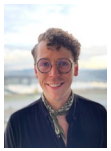
Tom Beer, MD



Tiffani Howard, PhD
Diana Potts, MPA
Bree Mitchell, PhD

John Carter, MD
Nima Nabavizadeh, MD
Dan Herzig, MD
Adel Kardosh, MD







Mason McLellan
Grace Curran
Mitchell Yep
Francs De Asis
Jacob Marquez
Saron Mekonnen
Megan Bills

Thank you.

The CEDAR Clinical Trials Team

OHSU KNIGHT CANCER *Institute*