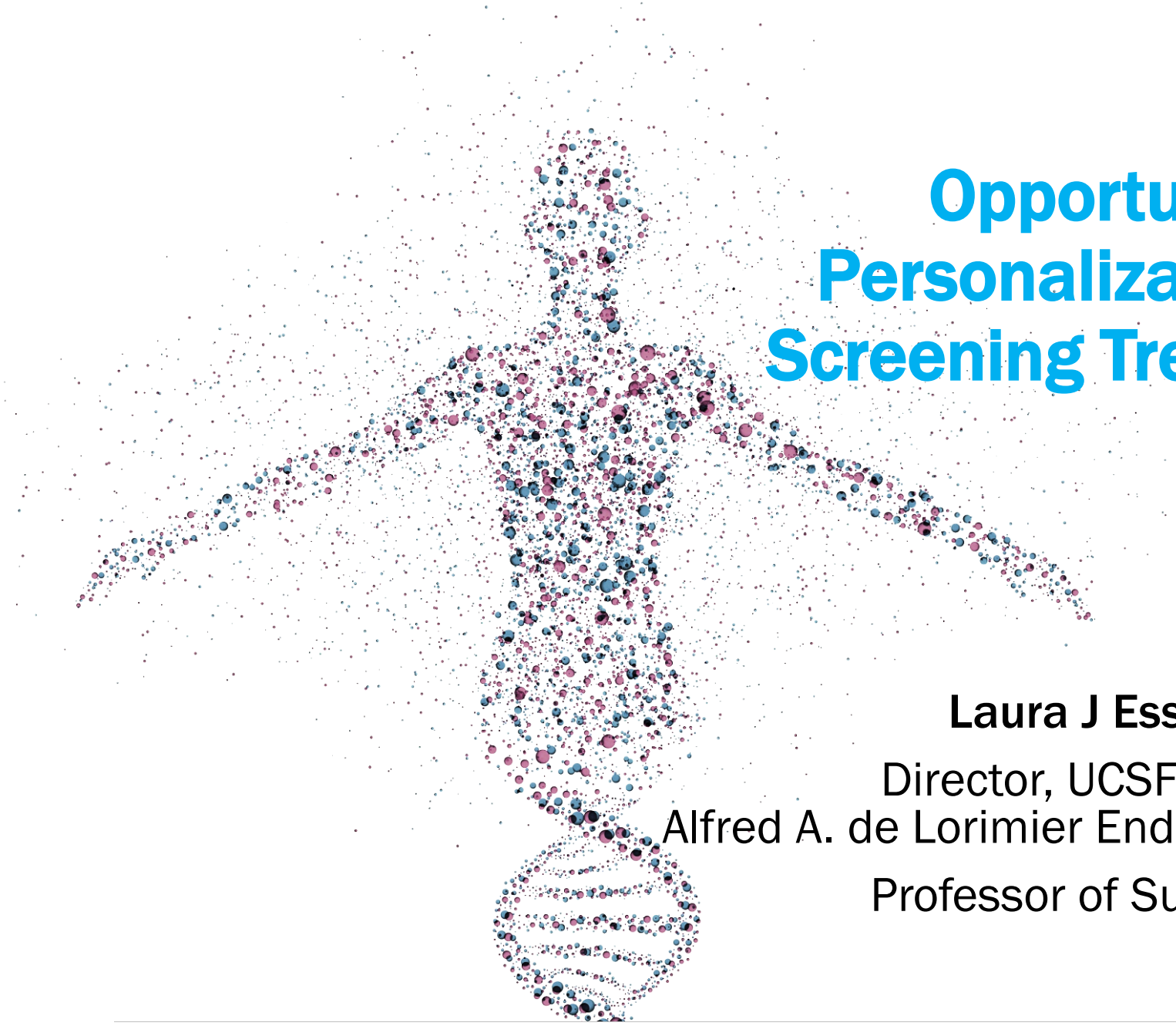


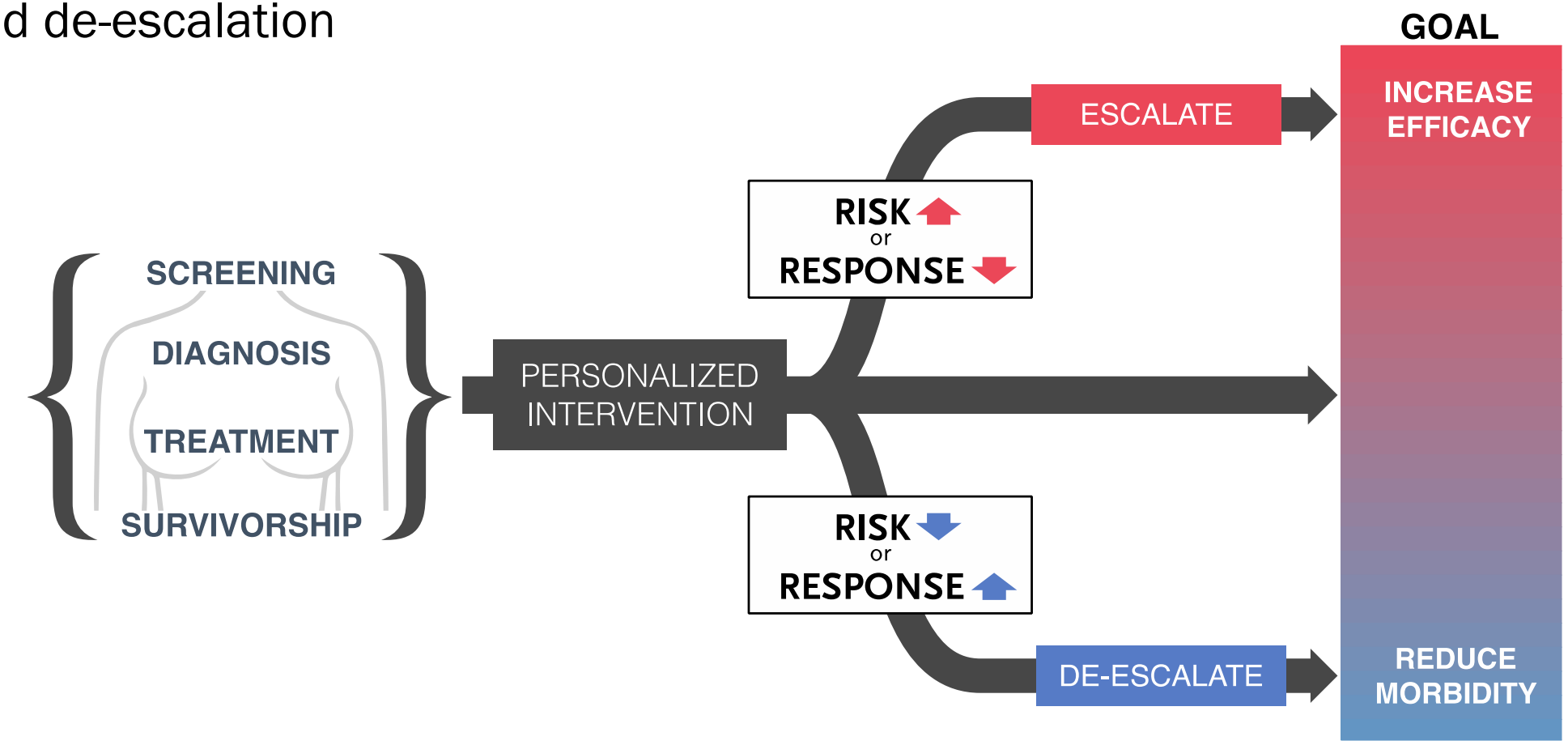
Opportunity to Re-Imagine Personalization for Breast Cancer Screening Treatment and Prevention

Laura J Esserman MD MBA

Director, UCSF Breast Care Center
Alfred A. de Lorimier Endowed Chair in General Surgery
Professor of Surgery and Radiology

Precision (Personalized) Medicine

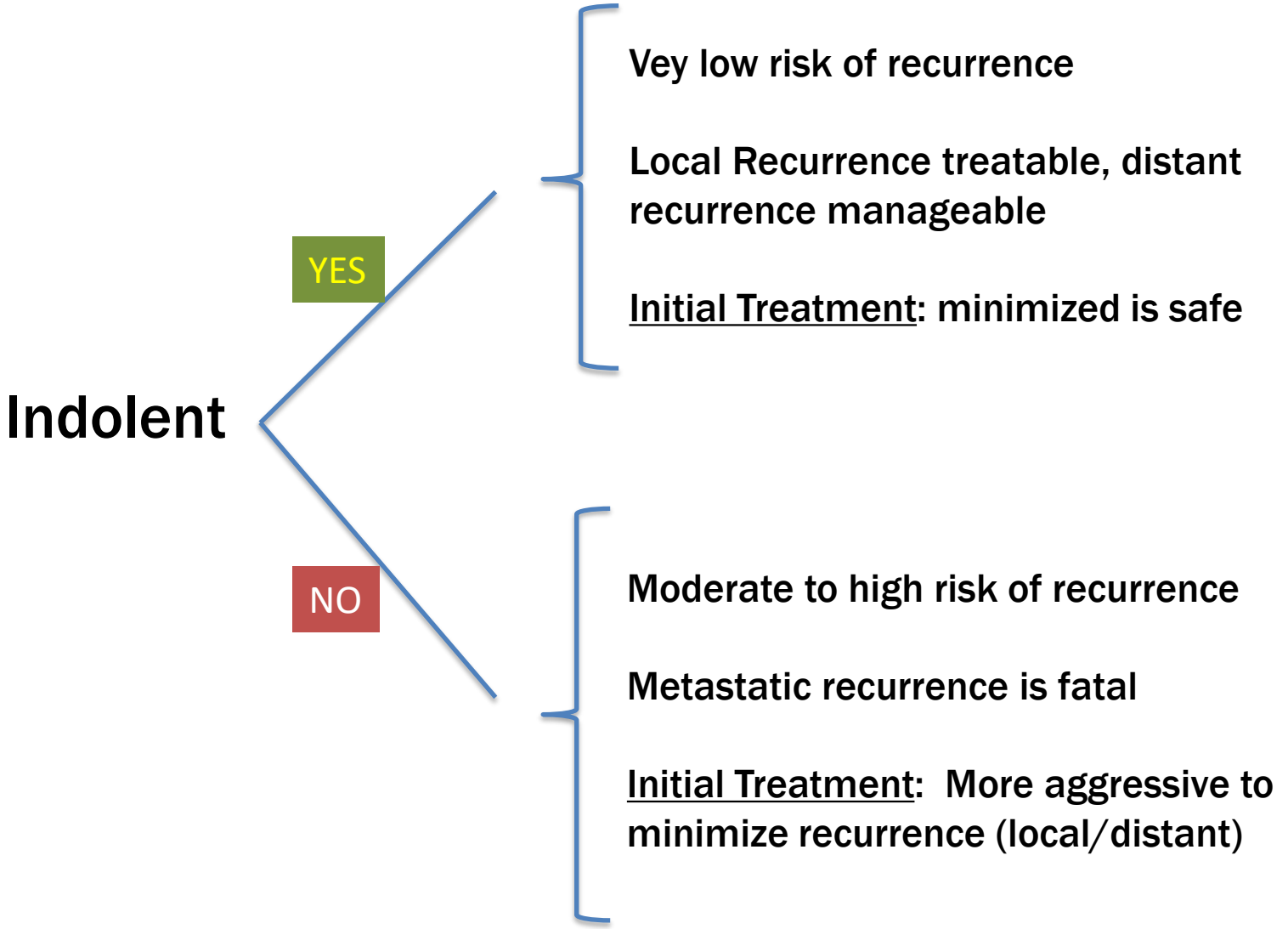
The scientific process of targeted escalation and de-escalation




ragweed
allergy


Allergy

Breast Cancer is Not One Disease: It is a Spectrum



Examples
DCIS
N0 T1a, T1b solitary lesions

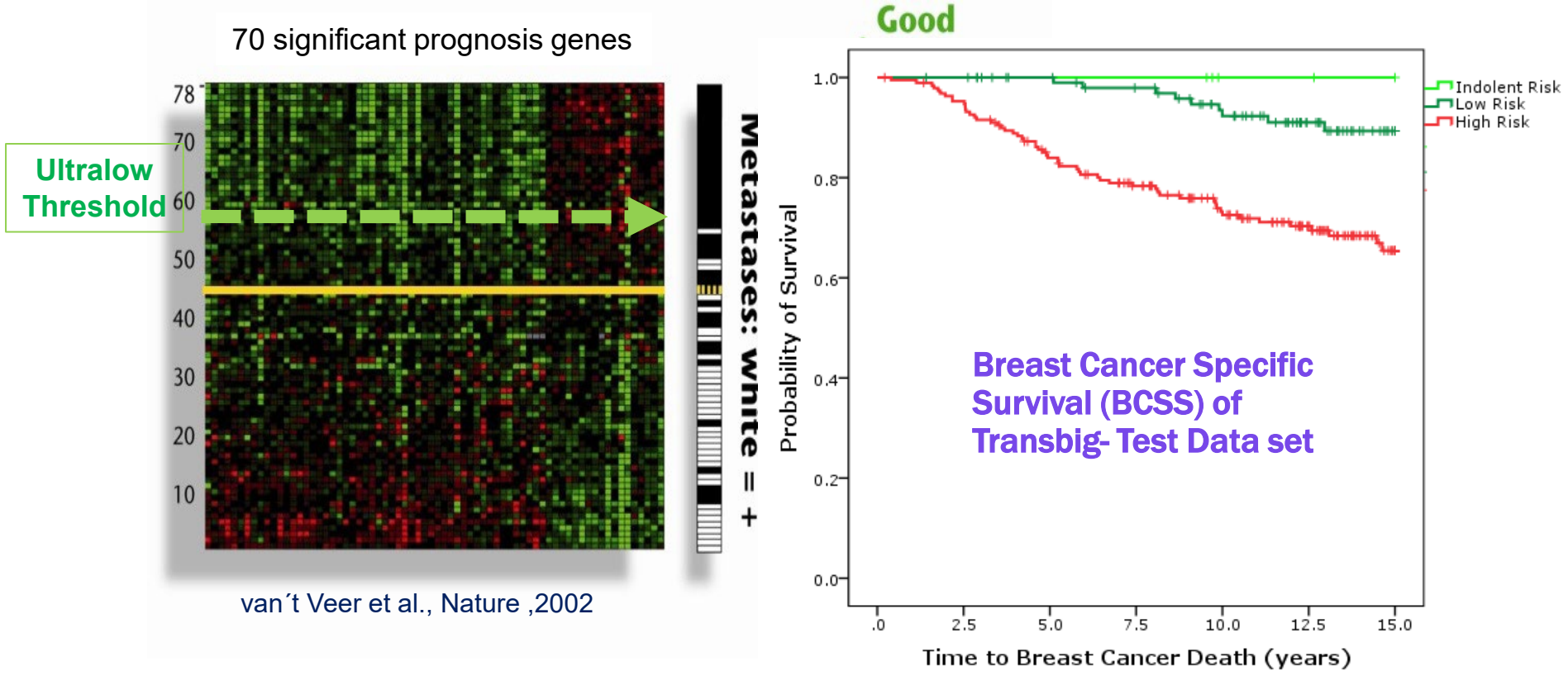
TIMING OF RECURRENCE Differs for Fast/Slow

Examples
Slower growing
- Luminal A tumors

Fast growing
- Her2+
- Triple Negative
- Luminal B

Is there a Molecular definition of “Indolent” or Ultralow Risk?

70 gene Prognosis Signature: “Ultra-low Threshold”

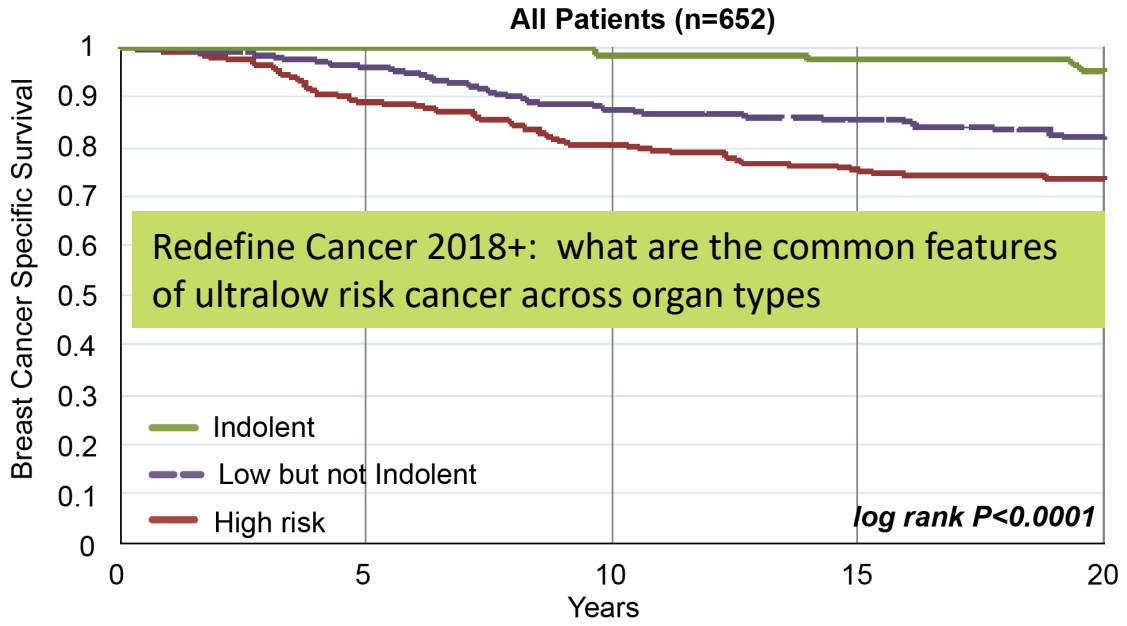


Ultralow risk threshold 0.355

Esserman et al BCRT 2017

Stockholm 3 Trial Population

25-40% of mammographically detected cancers



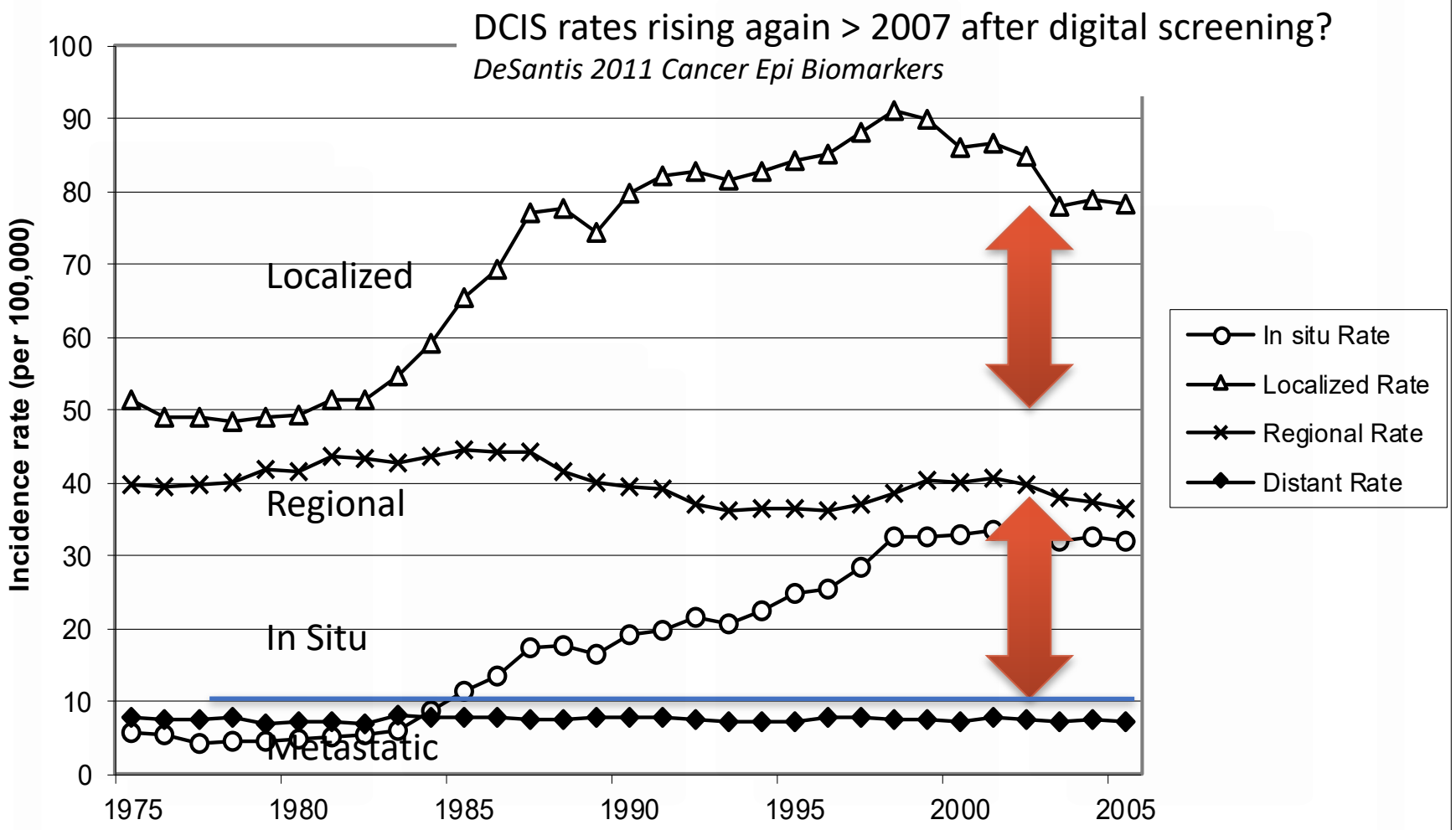
Number at risk (COD BC years)	0	5	10	15	20
Indolent	98	95	84	69	47
Low but not Indolent	279	253	208	169	116
High risk	275	227	183	150	121

NCI
MCL
EDRN

Esserman et al JAMA Onc 2017

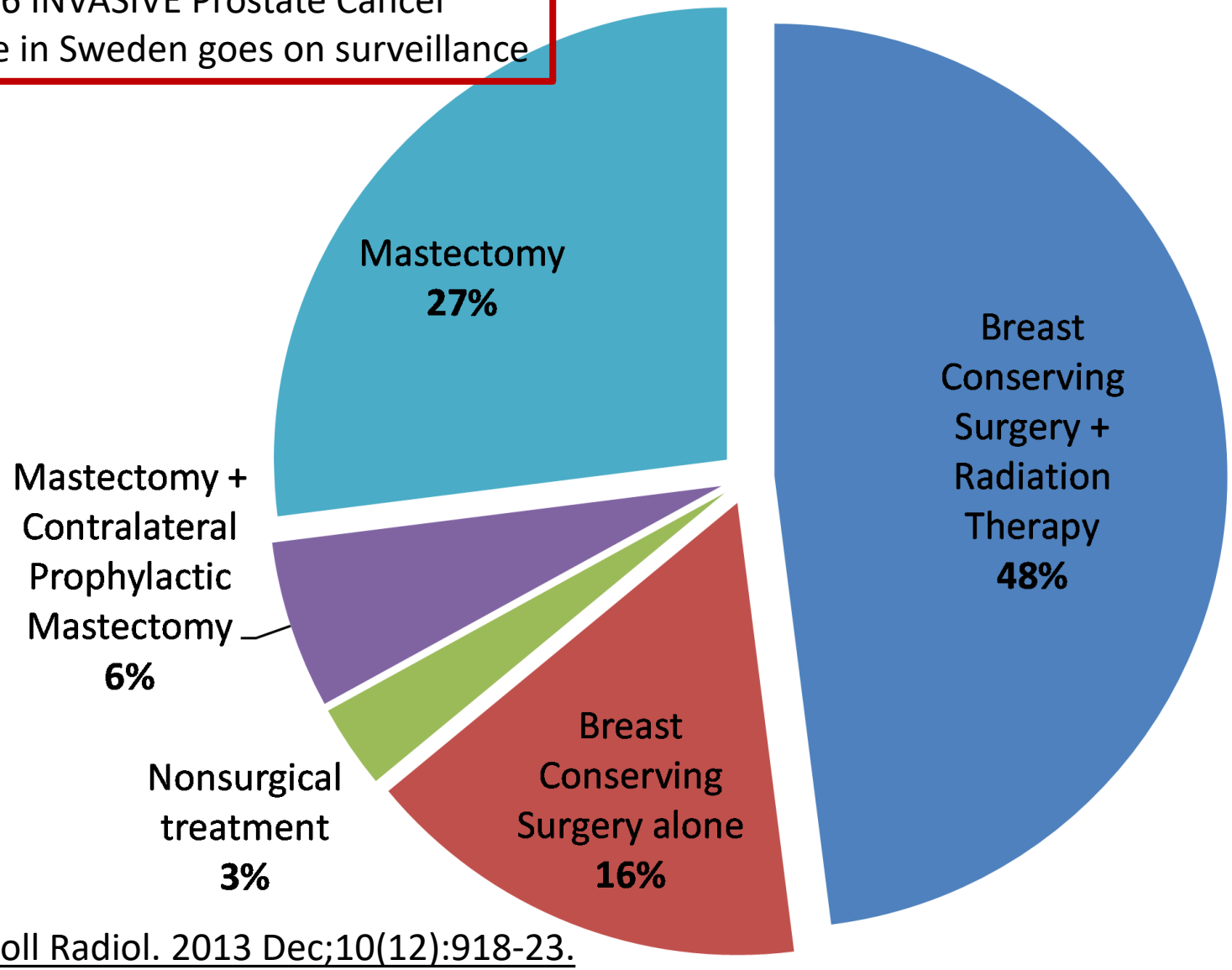
DCIS Increased 500% after the Advent of Mammographic Screening

Figure 2. SEER9 Age-adjusted incidence rate of breast cancer by stage (1973-2005)



Treatment of DCIS

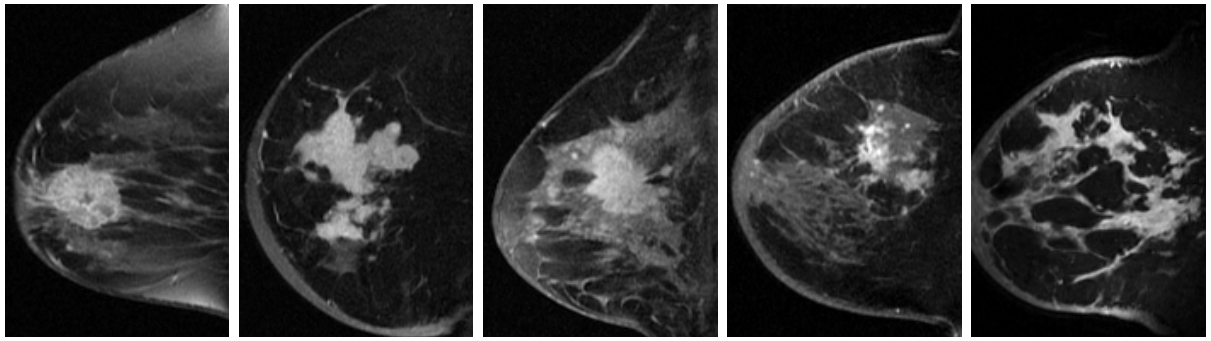
Gleason 6 INVASIVE Prostate Cancer
Everyone in Sweden goes on surveillance



J Am Coll Radiol. 2013 Dec;10(12):918-23.
Evolving paradigm for imaging, diagnosis, and management of DCIS

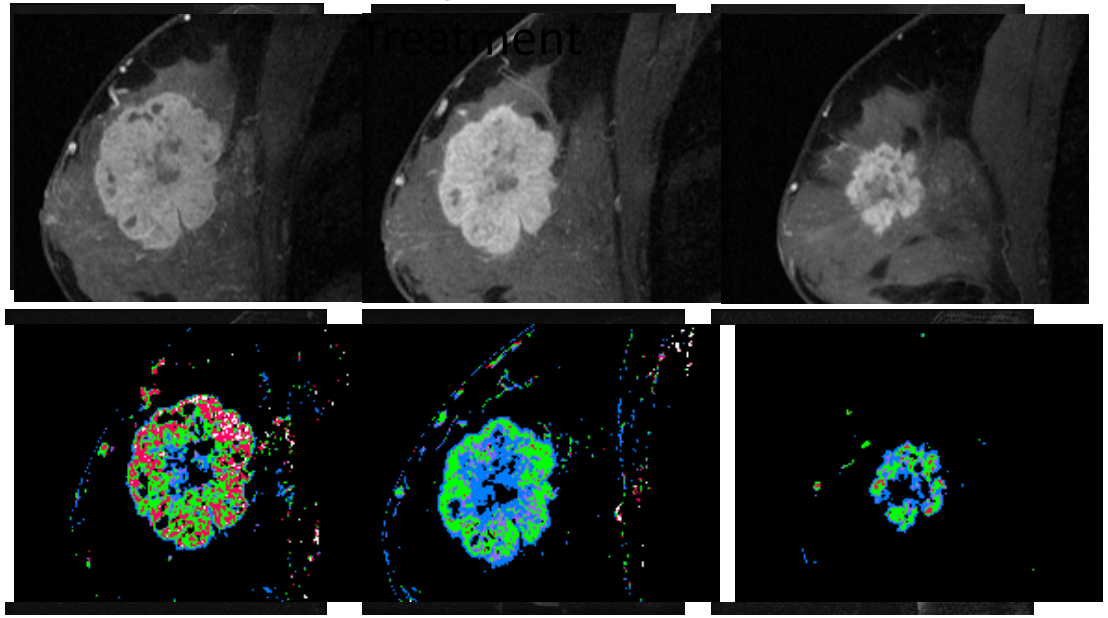
An imaging pilot study was the Catalyst for I-SPY 1

- All clinically advanced cancers do not look the same
- Their response to therapy was not the same
- Clarion call: we had to design a framework for learning about risk and response adaptively use it to improve outcomes
- Imaging was a catalyst for change



1 2 3 4

Pilot Trial at UCSF 1994-1999
I SPY 1 2000 (3)-2004
2006-2009
I SPY 2 2010



Conceptual Framework of I-SPY

Goal: ***Improve the Way We Evaluate New Treatments***

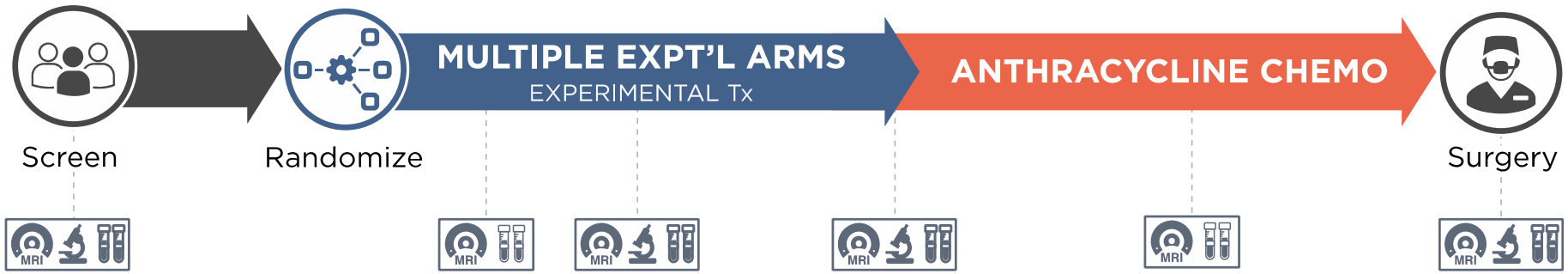
- Accelerate Knowledge turns: drive urgency and innovation
- Design trials that incorporate disease heterogeneity prospectively
- Move drug development into the earlier stage: high risk neoadjuvant setting
- Identify early endpoints captured in the course of care:
  - Amount of tumor left after treatment (none=pCR)
- Look for big signals
- Design trial to continuously learn: adaptive randomization
- Allow seamless evaluation of new drugs: eliminate “stop and start”
- Building evidence using biomarkers and new statistical methods

The “Neoadjuvant” Setting Is Key to Learning

- It is not better to treat after removing the tumor
- Without an “assay” to assess response, you are doomed to wait years to get an answer
- Allows tailoring of treatment-
  - More for those than need it
  - Less for those that do not
- Facilitates improvement and investigation of success and failure

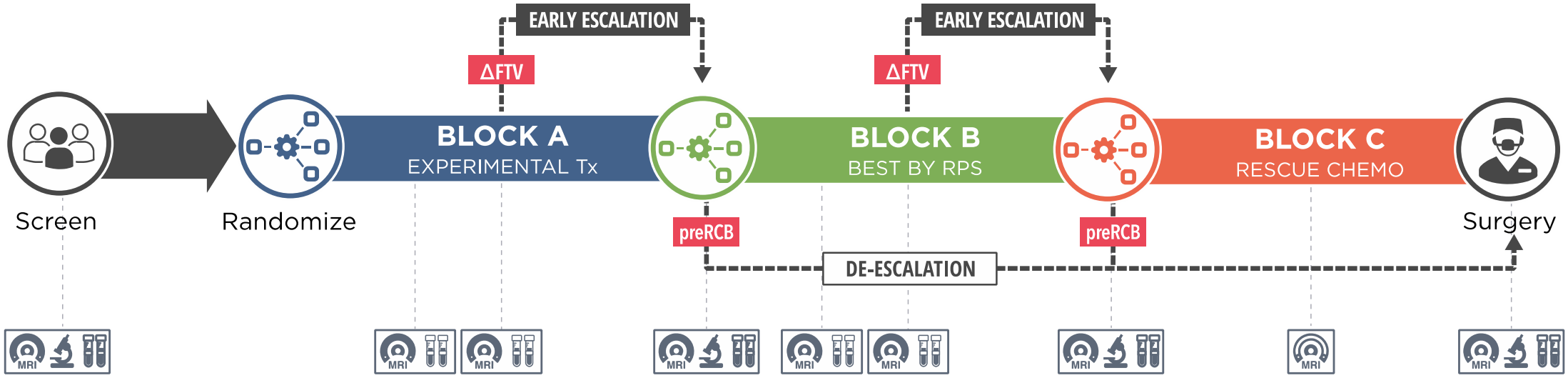
Lessons from I-SPY 2: Adapt treatment over course of trial

- **Neoadjuvant** tx for molecularly **high-risk stage 2-3** breast cancer
- We combined Novel agents + chemo (taxol), **followed by AC**
- The archetype of the **adaptive platform trial**
- Since 2010, **23 agents/combinations + control evaluated in 2,118 patients**
  - **10 agents "graduated"** -- an 85% probability of success in a confirmatory phase 3 trial



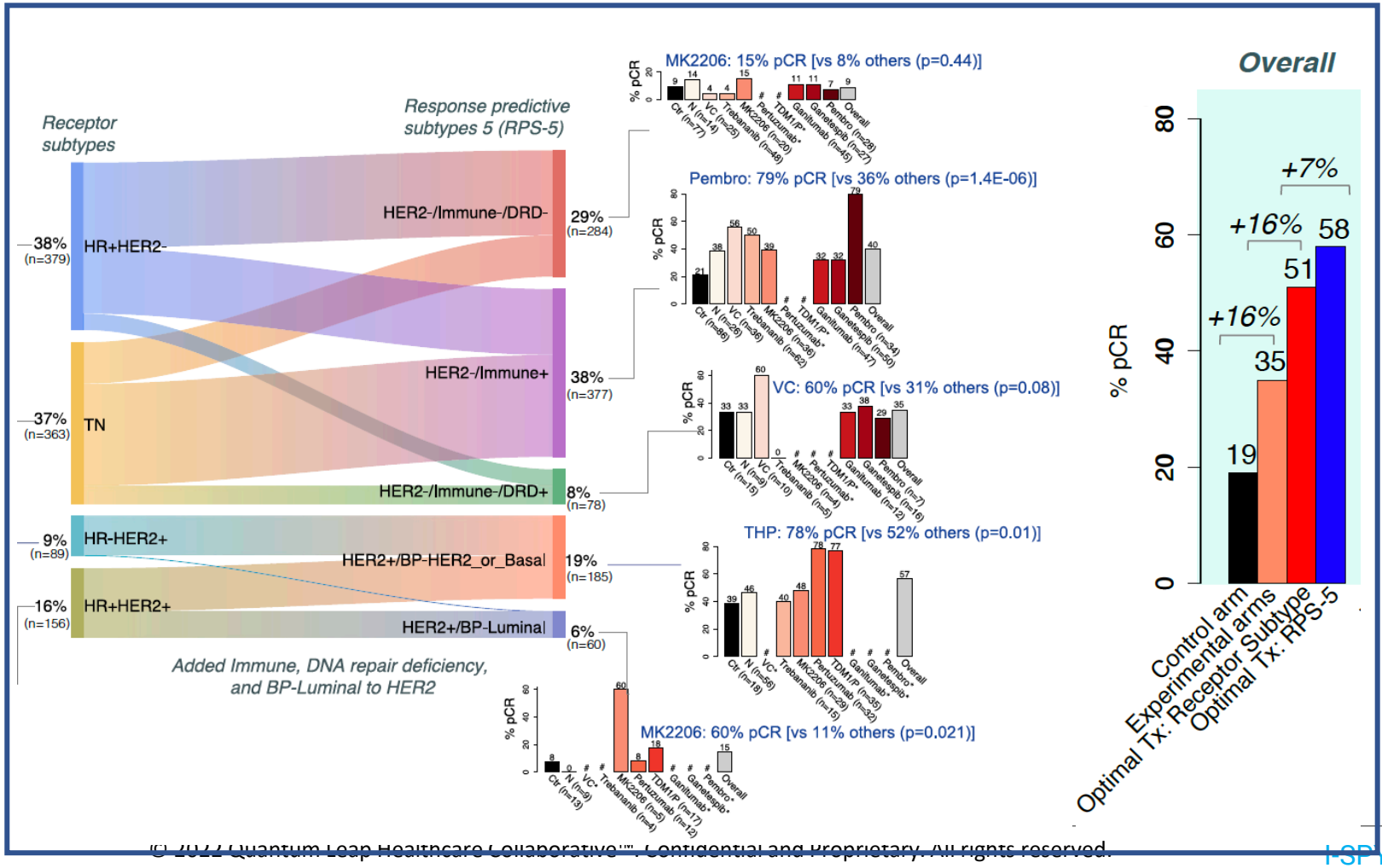
I-SPY 2.2 SMART Design: Adapt treatment to individual response

- I-SPY 2.2 uses a **S**equential **M**ultiple **A**ssignment **R**andomized **T**rial (SMART) design
- The goal is to maximize the chance of reaching pCR <u>for each patient</u>
- Key features of patient-friendly design:
  - Evaluate new, non std chemo agents in first treatment block, using early endpoints (MRI, Bx)
  - Assure patients that they have two additional "shots on goal" with proven subtype-matched treatments
  - Minimize toxicity due to unnecessary treatments



I-SPY 2.2 uses new tumor classifiers: Response Predictive Subtypes

Evaluation 9 drugs in 990 I-SPY 2 patients – Response Predictive Subtypes



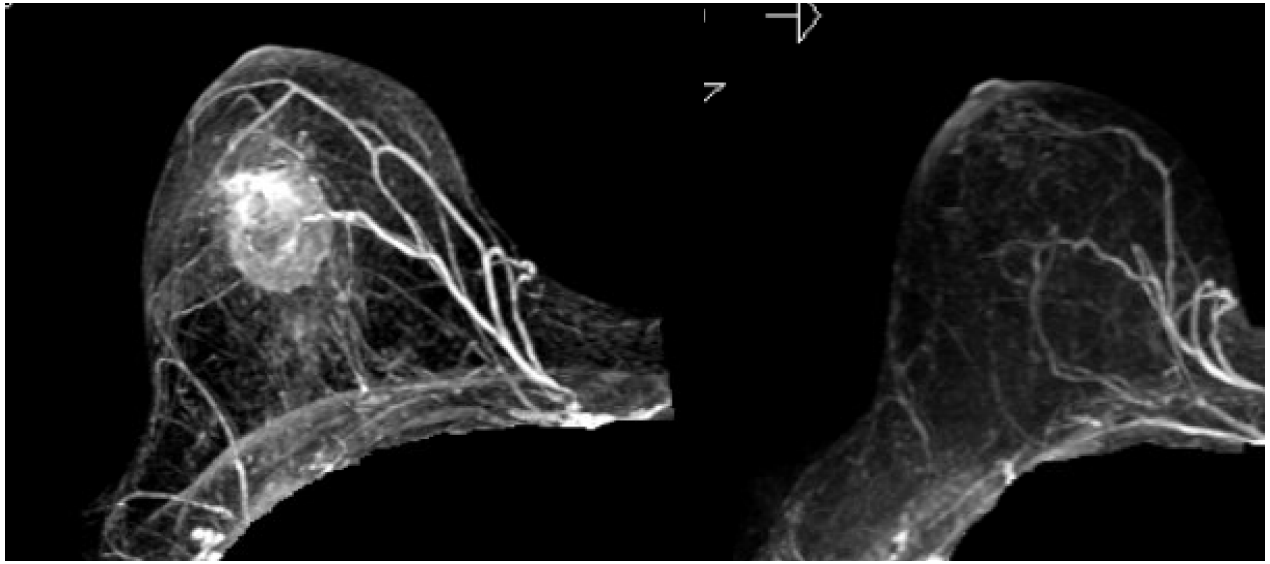
Alternative **Breast Cancer Response Predictive Subtyping (RPS)** schema **better predicts** response in modern treatment landscape

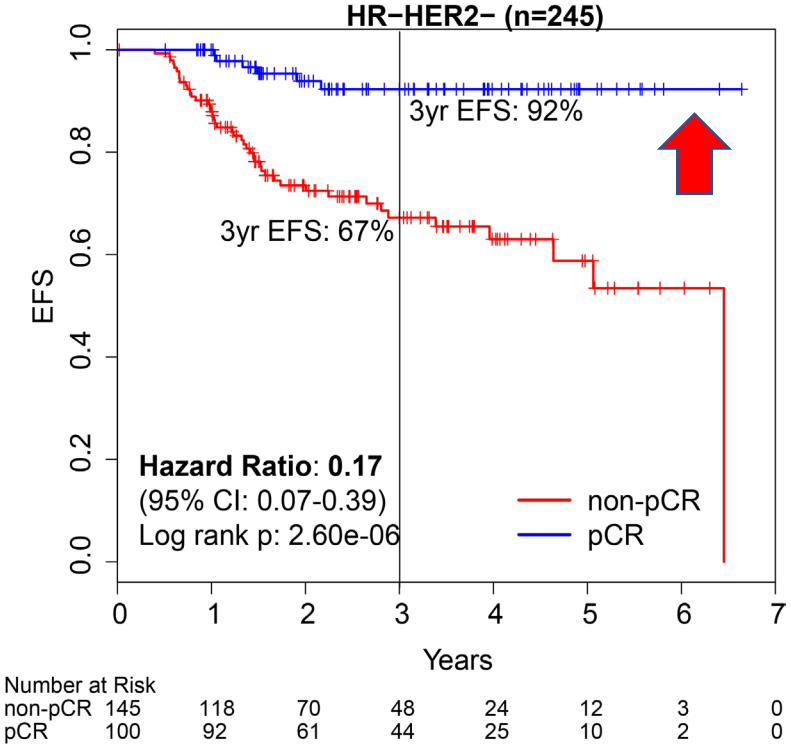
Using RPS should optimize the chance of achieving a pCR and is now used for randomization in ISPY2.2 **under an IDE**

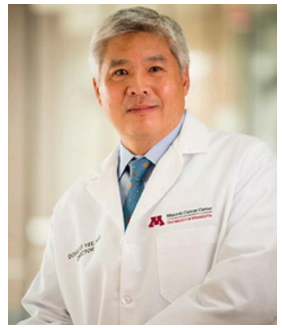
The right drug for the right patient triples the chance of the best result

Wolf, Yau, van 't Veer et al; 2022 Cancer Cell 40, p1-15

pCR Predicts Event Free Survival for Patients







Dr. Doug Yee

Original Investigation

February 13, 2020

Effect of Pembrolizumab Plus Neoadjuvant Chemotherapy on Pathologic Complete Response in Women With Early-Stage Breast Cancer

An Analysis of the Ongoing Phase 2 Adaptively Randomized I-SPY2 Trial

Rita Nanda, MD[1]; Minetta C. Liu, MD[2]; Christina Yau, PhD[3]; et al

» Author Affiliations | Article Information

JAMA Oncol. 2020;6(5):676-684. doi:10.1001/jamaoncol.2019.6650

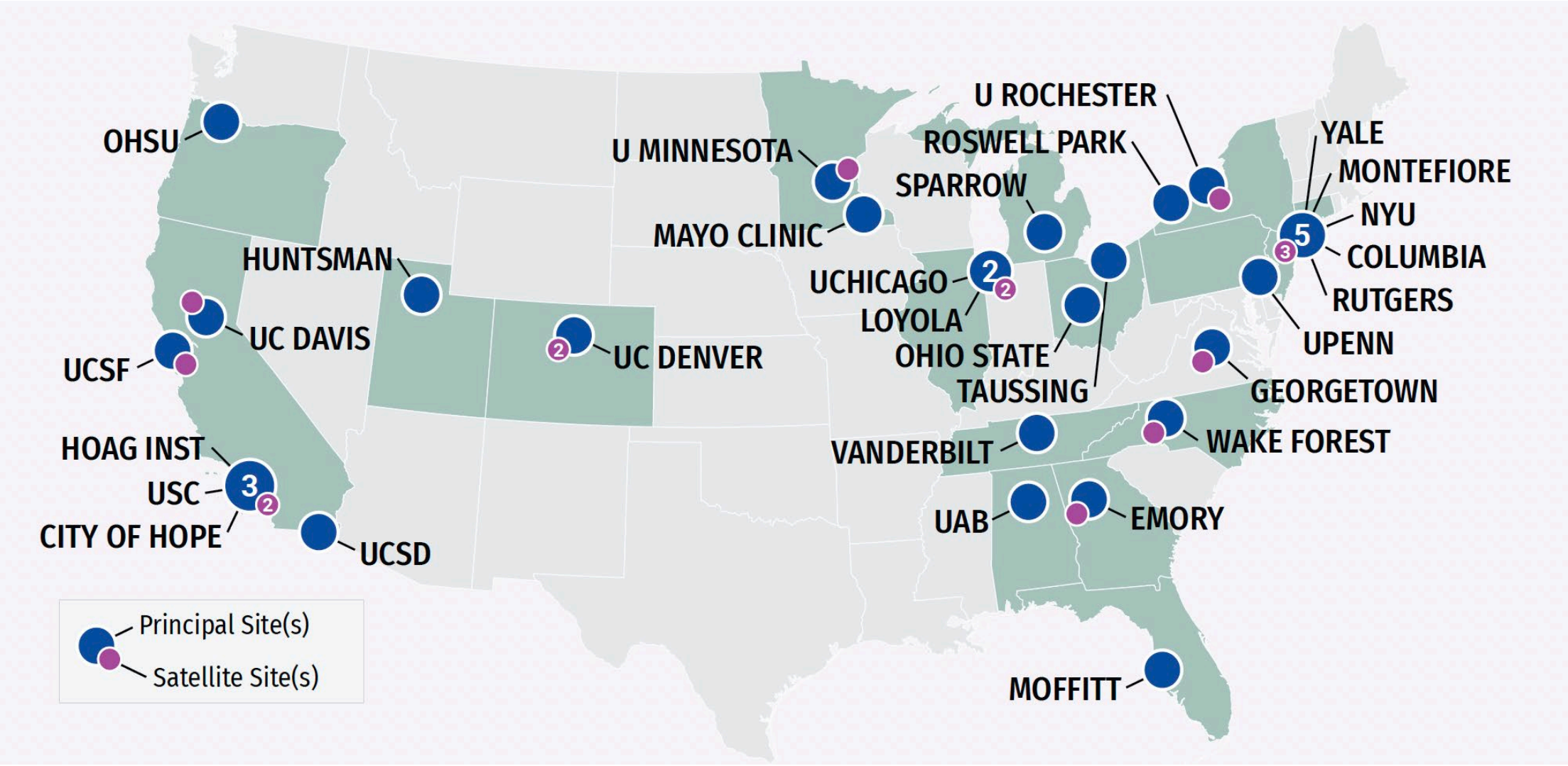
Yee et al 2020

JAMA Oncology | Original Investigation

Correlation of Event-Free and Distant Recurrence-Free Survival With Individual-Level Pathologic Complete Response in Neoadjuvant Treatment of Stages 2 and 3 Breast Cancer

The I-SPY2 Adaptively Randomized Clinical Trial

National Study: 43 sites, diverse population



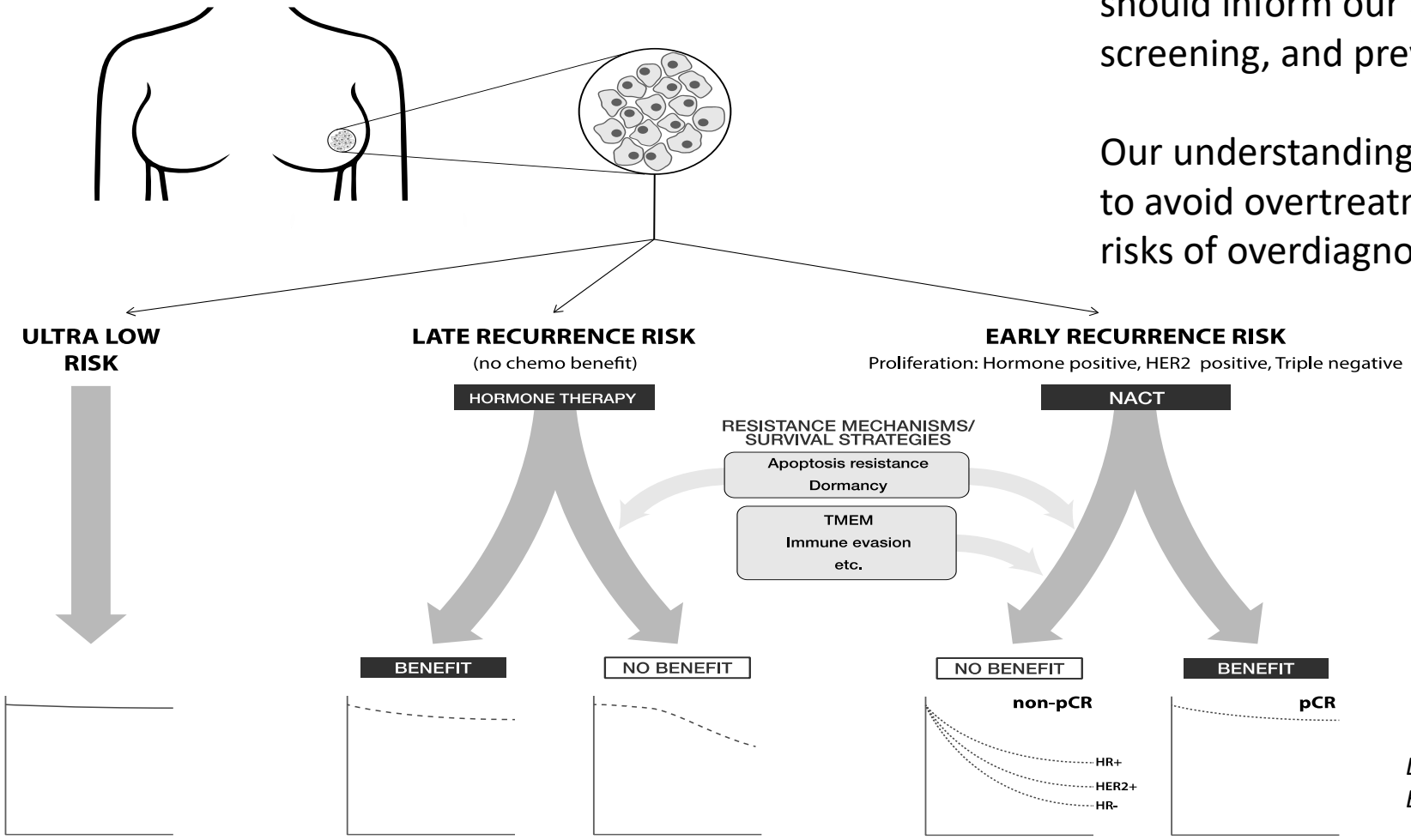
The I-SPY Vision

"Make new, better and more personalized treatments available faster, at a time when patients need them most"

Better outcomes for all patients:

What we know about invasive disease should inform our approach to DCIS, screening, and prevention (WISDOM)

Our understanding of biology can help us to avoid overtreatment, diminishing the risks of overdiagnosis



DeMichele, Yee, Esserman NEJM 2017
Esserman JAMA Oncol 2017

Extending the neoadjuvant I-SPY model

to learn to prevent cancer development

DCIS Can Be a Gateway for Prevention

- Identifies a group of women at elevated risk for developing breast cancer
  - But there may still be some with very low risk, and for ultralow risk for cancer
- The diagnosis covers a range of biology that can reflect subsequent IDC biology
- The risk of progression or new cancer development varies widely
- There is no emergency and no one's life is threatened by DCIS only
  - There is some risk of upstaging to invasive cancer, reduced by use of MRI
- There is a window of opportunity to test risk reduction strategies
  - The same neoadjuvant approach has accelerated treatment advances in IDC
- Interventions before surgery can use MR imaging as an early endpoint
  - Provides an opportunity to study preventive interventions using early (3-6 mo) endpoints

MRI features can serve as a predictor of risk and response

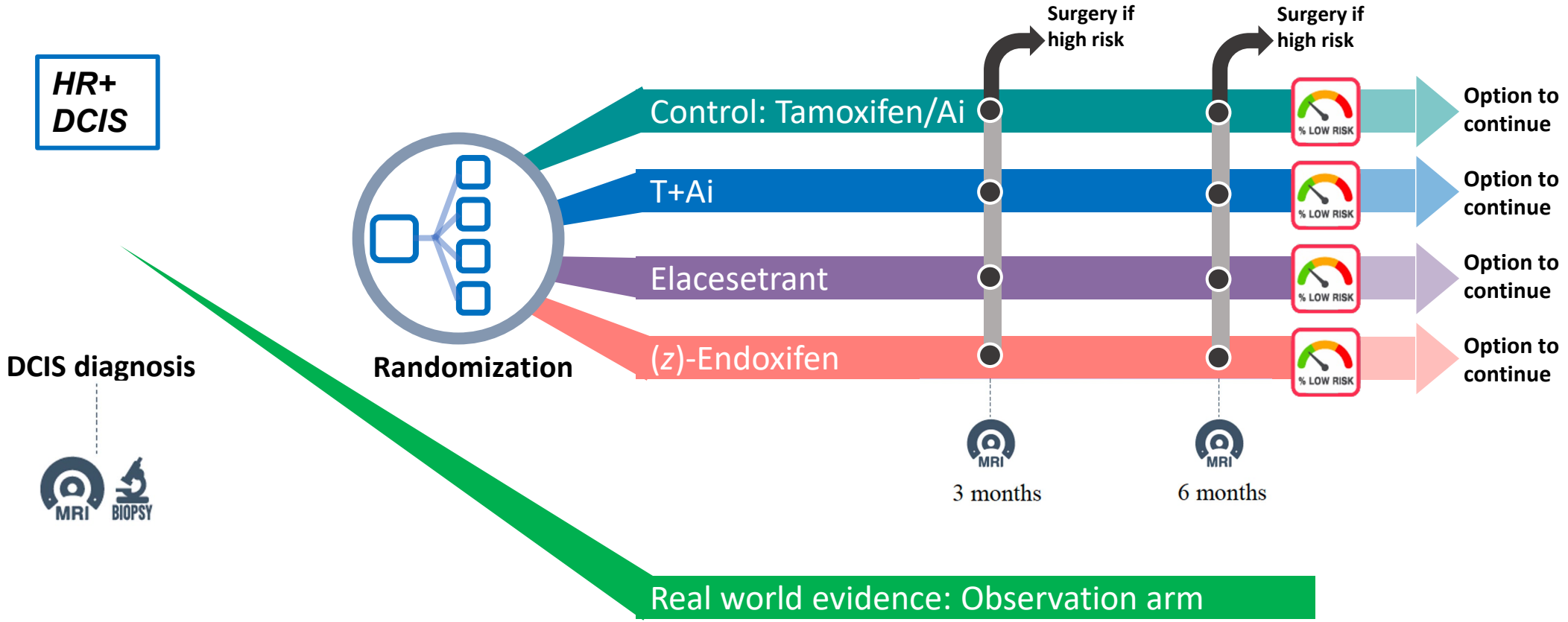
in the setting of endocrine risk reducing therapy

Baseline/Response to Endocrine therapy sets the stage for how we can improve treatments

And this ties into the observation that AT LEAST 2 YEARS OF ENDOCRINE therapy reduces risk after DCIS
And for whom
O'Keefe, Hirst in press

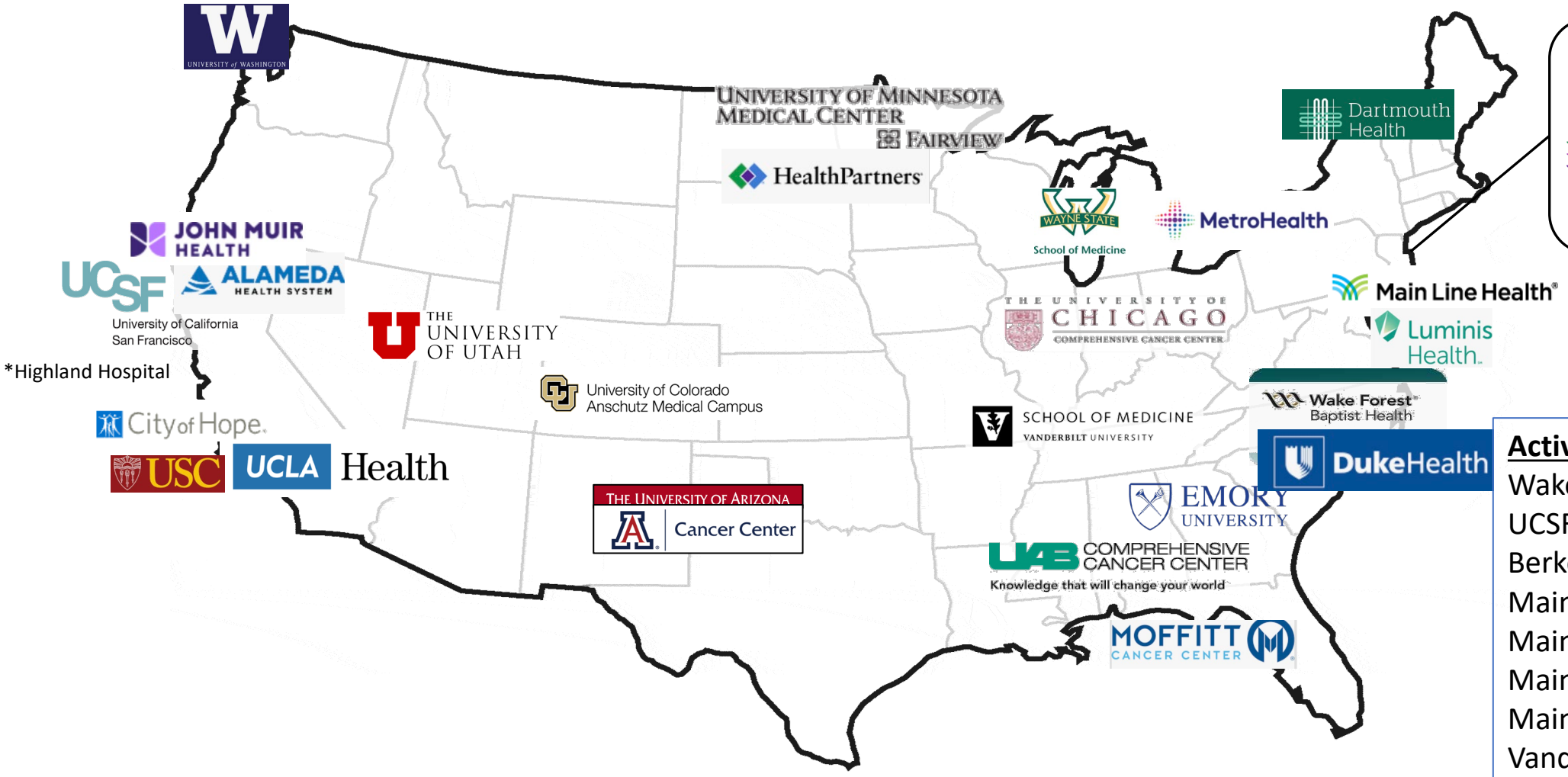
RECAST DCIS Study schema

Re-Evaluate Conditions for Active surveillance Suitability as Treatment



Neoadjuvant hormone therapy is safe and given in the setting of HR+ stage 2 and 3 breast cancers

30+ Institutions planned for DCIS RECAST
12 are already part of the I SPY network



Activated:
Wake Forest
UCSF
Berkeley Outpatient Ctr
Main Line Lankenau
Main Line Bryn Mawr
Main Line Paoli
Main Line Riddle
Vanderbilt

Modulating the Immune Microenvironment in DCIS

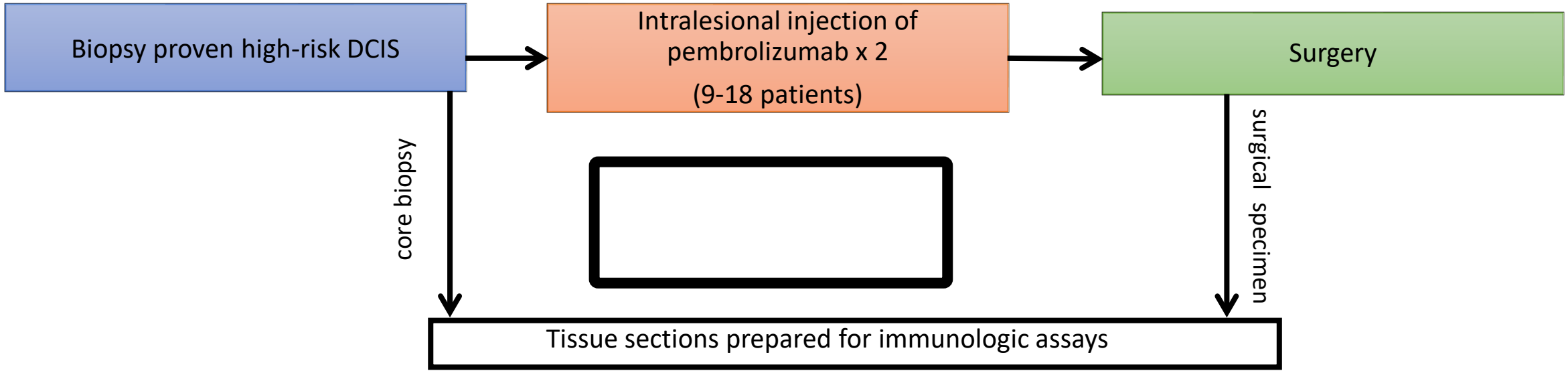
Agent: Nidlegy

Administration: Intralesional injection directly into DCIS

How often: Two doses, one-two weeks apart

Patients must have at least 2 of the following high risk features:

- High-grade
- Palpable mass
- Her2 positive
- Hormone receptor negative (less than 1%)
- Young age (less than 45 years old)
- Large size (greater than 5 cm)



Pre-Injection, 4 wks (s/p 2 injections), 12 wks

PreTreatment **4 weeks (S/P 2 injections)** **12 weeks**

DCIS with IDC 2.5 mm

DCIS without IDC

No sign of recurrence at 1 year

Save the Date:

RISE UP
for Breast Cancer

Revolutionizing **I**nvestigations to **S**tep **U**p **P**revention for Breast Cancer

November 1-3, 2024
San Francisco, CA

What: A new, interdisciplinary breast cancer conference. A bold reimagining of treatment AND prevention

Who: Breast Oncologists (all stripes), Gynecologists, Primary Care, scientists, advocates, policymakers, oncology/contraceptive drug makers

Why: *RISE UP* to the challenge of reducing both breast cancer mortality AND incidence

Sponsors: UCSF, U Minnesota & Dana Farber; Drs. Laura Esserman, Douglas Yee, & Judy Garber

Key Dates

- Meeting Registration Opens June 4
- Rooms at Hotel Nikko ($179/night) !!!
- Abstract Submission: September 1
- Abstract Notification: September 15
- Award Applications Open
  - Concept Submissions close September 1
  - Semi-Finalists notified September 15
  - Pitch Deck due October 15
    - Implementation Award
    - Spark Award
- Sponsorships Welcome!

Visit our website (riseup.ucsf.edu) to learn more!

We all have to Lean In, Learn More, Evolve

- All cancers are not the same
- All hormones are not the same
- More research, more work to investigate how to use hormonal agents better- in ways that improve the quality of life and reduce risk for cancer
  - Primary prevention
  - Secondary prevention
- Come to Rise Up !!!

In 2023

297,790

women diagnosed with breast cancer in the US

“1 in 8” women will get breast cancer

- Women: 297,790 new cases of invasive breast cancer
- Men: 2,800 new cases of breast cancer
- Ductal carcinoma in situ (DCIS): 55,720 new cases

In 2023

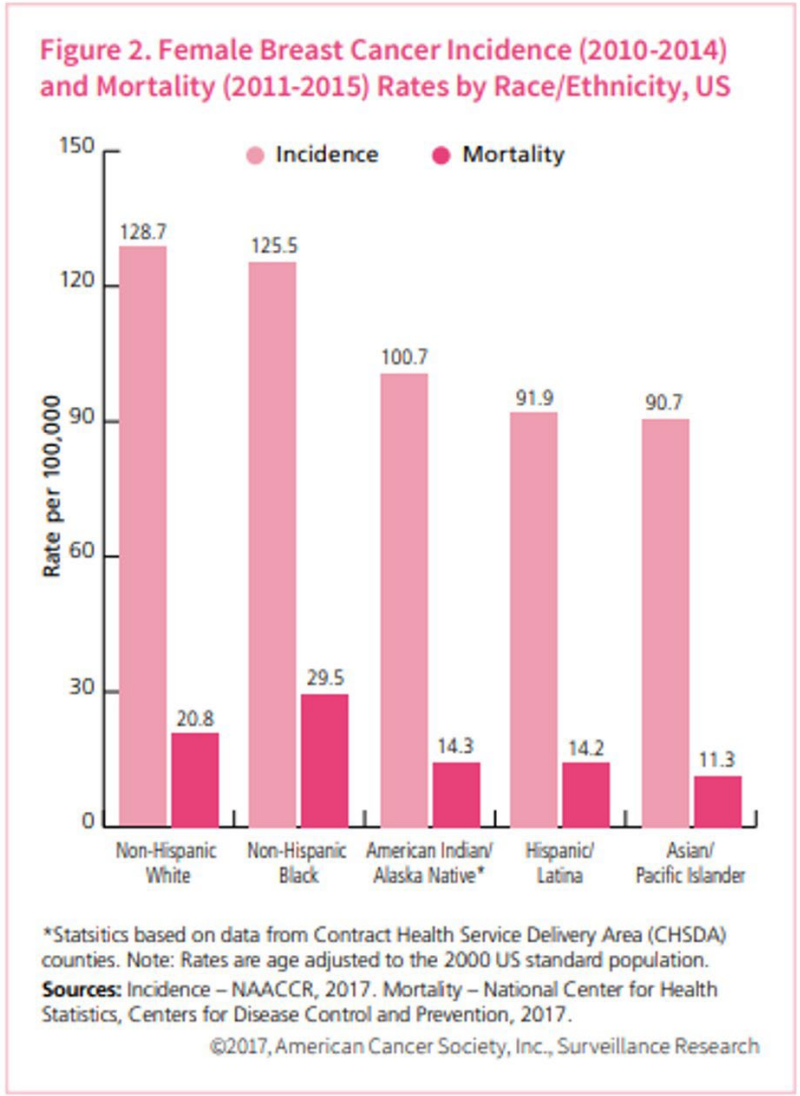
43,700

women died from breast cancer in the US
despite screening

530 men also died

Wisdom
thewisdomstudy.org

Who gets breast cancer in the US?

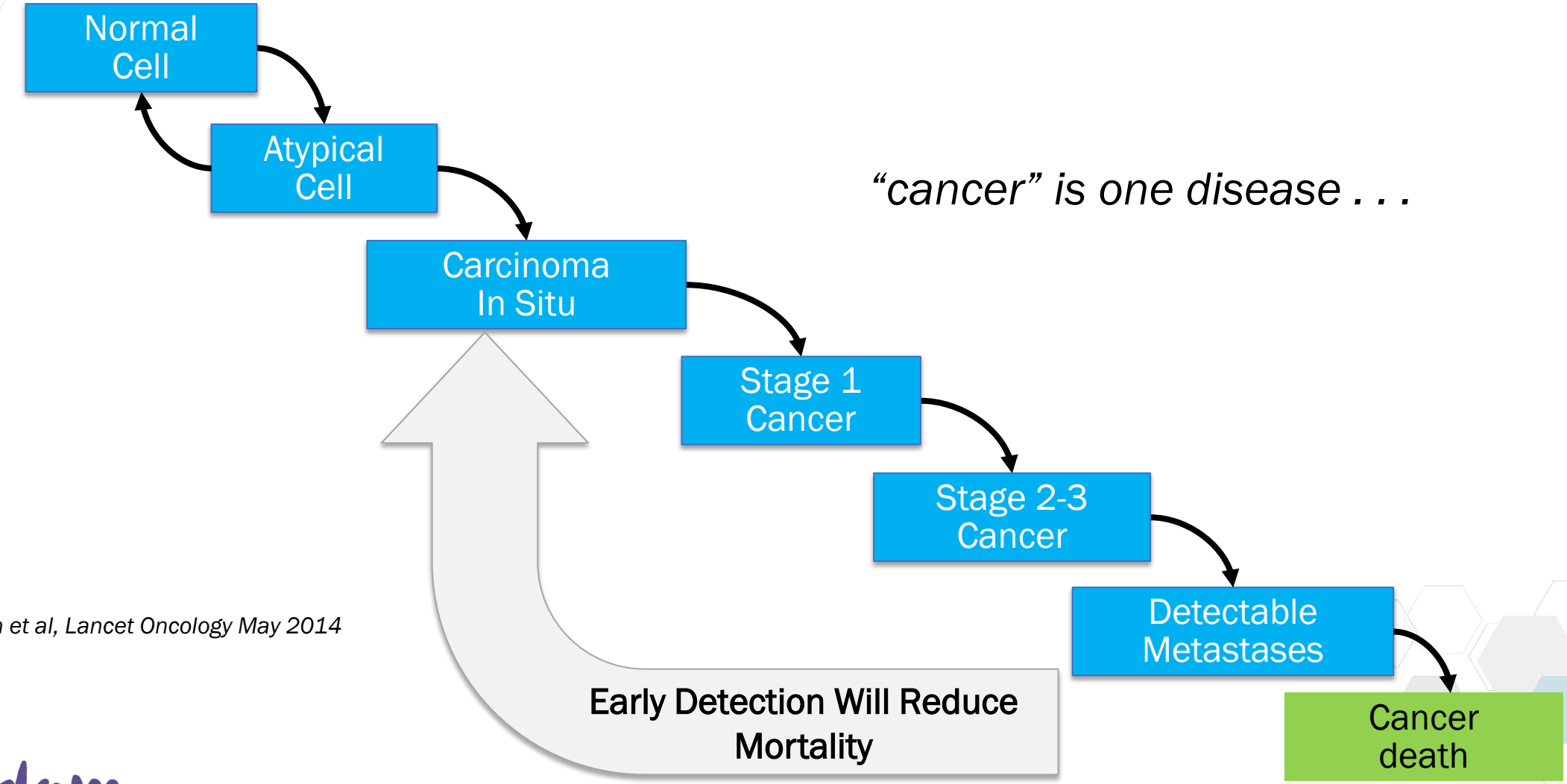


- White and Black women have the highest incidence overall
- **Black women have the highest mortality rate**
  - **Not just an issue of lower access to care**
  - **Black women have higher rates of more aggressive tumor types**
  - **Get diagnosed at younger ages and at later/more advanced stages**
- Incidence and mortality rates lower in American Indian, Hispanic, Asian women

There are 7 different clinical guidelines in the US, and years of disagreement on how to screen! (Ex-US: Biennial screening starting at 50)

Screening strategy	Analogous guideline	Starting age	Stopping age	Frequency and modality
Annual	American College of Radiology (ACR)	40 years	Per health status	Annual mammogram
Biennial	United States Preventive Services Task Force (USPSTF) 2013	50 years	74 years	Biennial mammogram
Biennial	United States Preventive Services Task Force (USPSTF) 2024	40 years	74 years	Biennial mammogram
Hybrid	American Cancer Society (ACS)	45 years	Per health status and life expectancy >10 years	Annual mammogram: age 45-54 Biennial mammogram: age 55 and over

Old Paradigm: inexorable progression



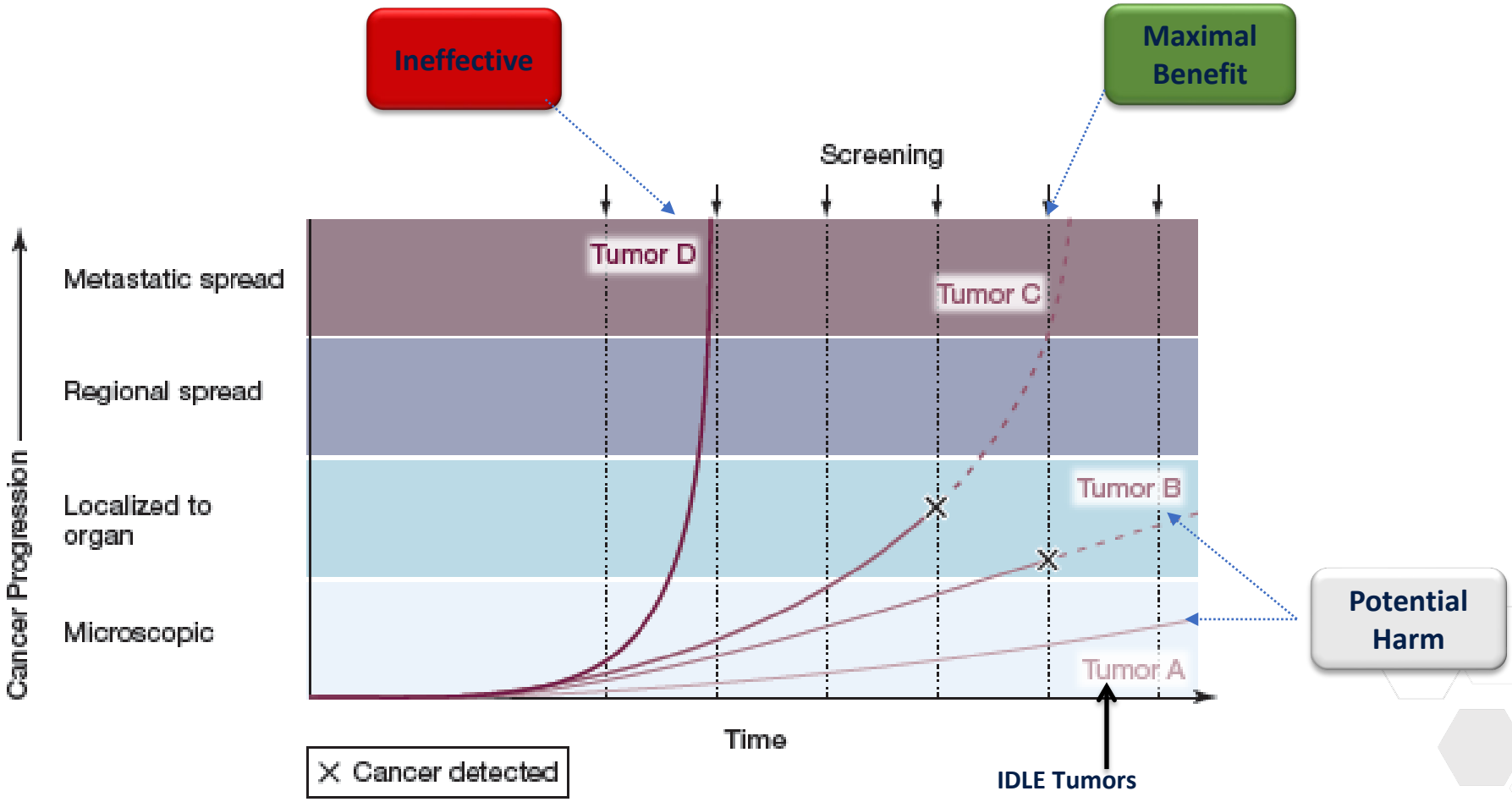
"cancer" is one disease . . .

Esserman et al, Lancet Oncology May 2014

Wisdom
thewisdomstudy.org

Breast cancer is not a single disease!

Rate of tumor progression explains the benefit (and lack of) from screening



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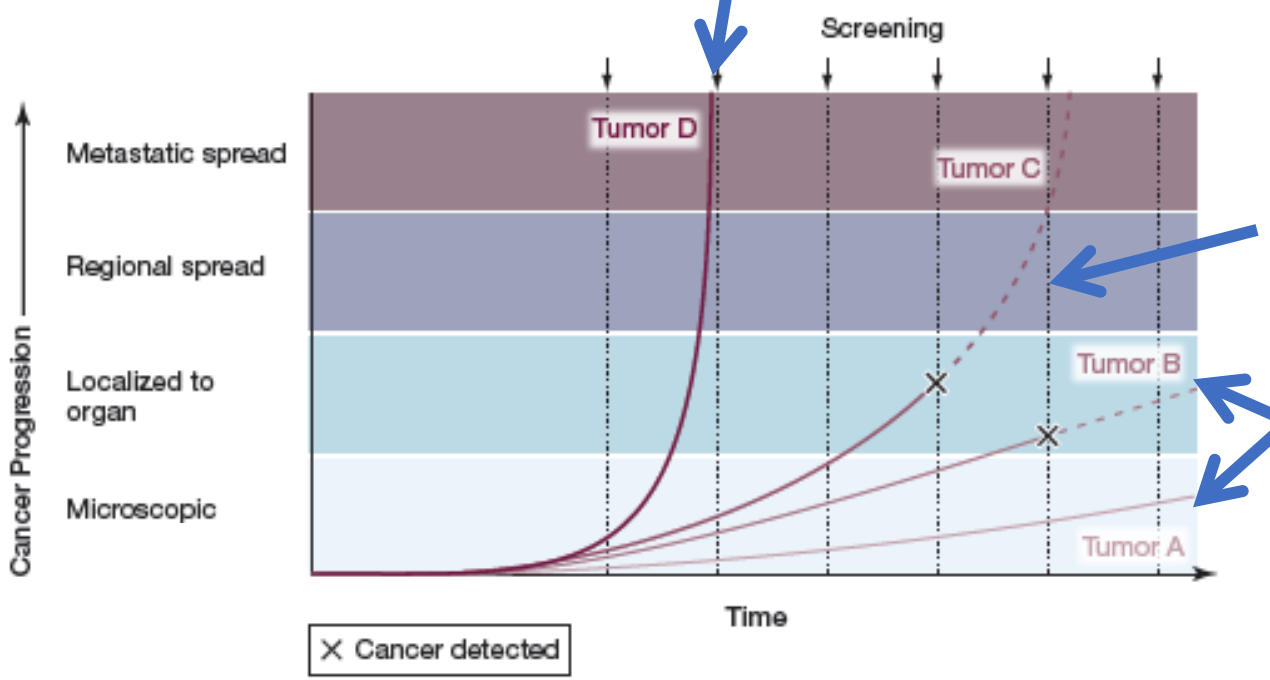
Screening should reflect our new understanding of breast cancer biology

How Biology Helps Us to Understand the Screening Recommendations

More common in young women



Cancers most likely to benefit from screening

More common in older women

Likely the cancers that benefit most from current screening progress at a pace where screening every 24 months is sufficient

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How has the field changed over the years?

1. Introduction and adoption of 3D mammography; ultrasound
2. More screening for any family history (even younger- 8-10 yrs prior to first cancer in the family)
3. What is the impact on practice patterns and cost of screening?
   - Screening costs have almost doubled
   - Impact on mortality is unknown
     - Relative 20-30% reduction in mortality= **2-3% absolute reduction**

If One Size Does Not Fit All for Treatment . . .

Why do we screen as if everyone has the same risk for the same cancer?

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Every Celebrity Diagnosed with Breast Cancer

tells women to go out and get a mammogram

Several celebrities have spoken out about the importance of mammograms and breast cancer risk assessment,

But What We Do Today Isn't Good Enough

- 42,000 women a year are still dying of breast cancer
- Nearly 300,000 women are being diagnosed
  - Some are precancers- that we treat as if they are stage 1 *Overtreatment*
  - Some are very small cancer that pose minimal threat to life
  - Some are very consequential cancers that are life threatening
    - We are not finding these with screening
- Recalls and false positive biopsies are very stressful
  - 50% of women screened for 10 years will experience a recall
- We need to do better and screen differently
  - Still using the approach from the 1980's

Olivia Munn’s Story was Different

This risk assessment tool helped Olivia Munn discover her breast cancer

By Jacqueline Howard, CNN

7 minute read · Updated 5:59 PM EDT, Wed March 13, 2024

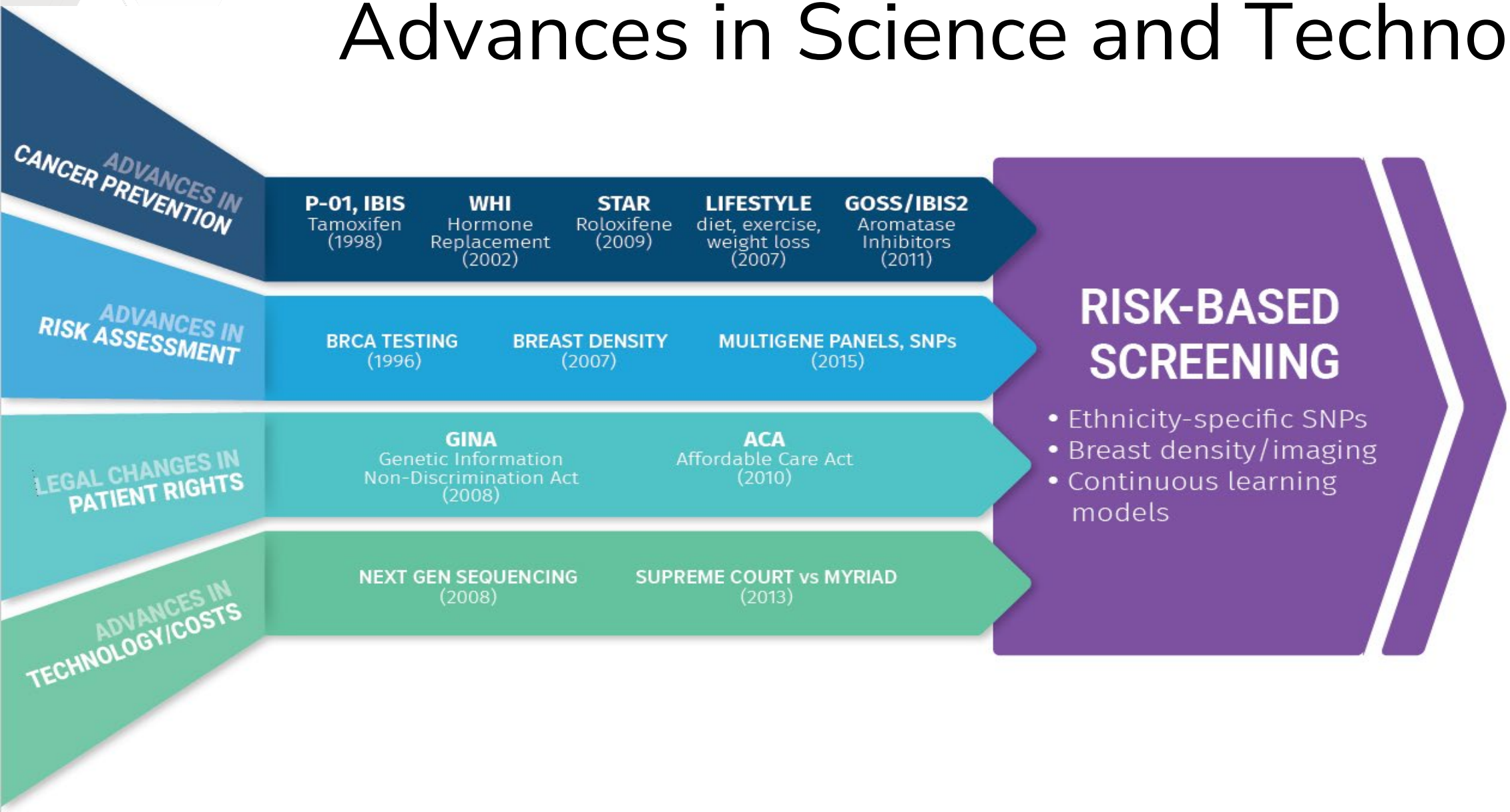
In February of 2023, in an effort to be proactive about my health, I took a genetic test that checks you for 90 different cancer genes. I tested negative for all, including BRCA (the most well-known breast cancer gene). My sister Sara had just tested negative as well. We called each other and high-fived over the phone. That same winter I also had a normal mammogram.

Two months later I was diagnosed with breast cancer.

In the past two months I have had four surgeries, so many days spent in bed I can't even count and have learned more about cancer, cancer treatment and hormones than I ever could have imagined. Surprisingly, I've only cried twice. I guess I haven't felt like there was time to cry. My focus narrowed and I tabled any emotions that I felt would interfere with my ability to stay clearheaded.

I've tended to let people see me when I have energy, when I can get dressed and get out of the house, when I can take my baby boy to the park. I've kept the diagnosis and the worry and the recovery and the pain medicine and the paper gowns private. I needed to catch my breath and get through some of the hardest parts before sharing.

Unprecedented Opportunity: Advances in Science and Technology



One size does NOT fit all

- ✓ Our bodies are different.
- ✓ Our biology is different.
- ✓ Our risk for breast cancer is different.
- ✓ Our screening should be too.

So, how do we improve breast screening and cancer detection for all women? The WISDOM Study!

- ✓ A **large-scale randomized trial** to test a new approach that could make breast screening more personalized, and save lives
- ✓ Inclusion of **diverse population** of women to learn their own risk and participate in research
- ✓ Better **breast health education** and preventive options

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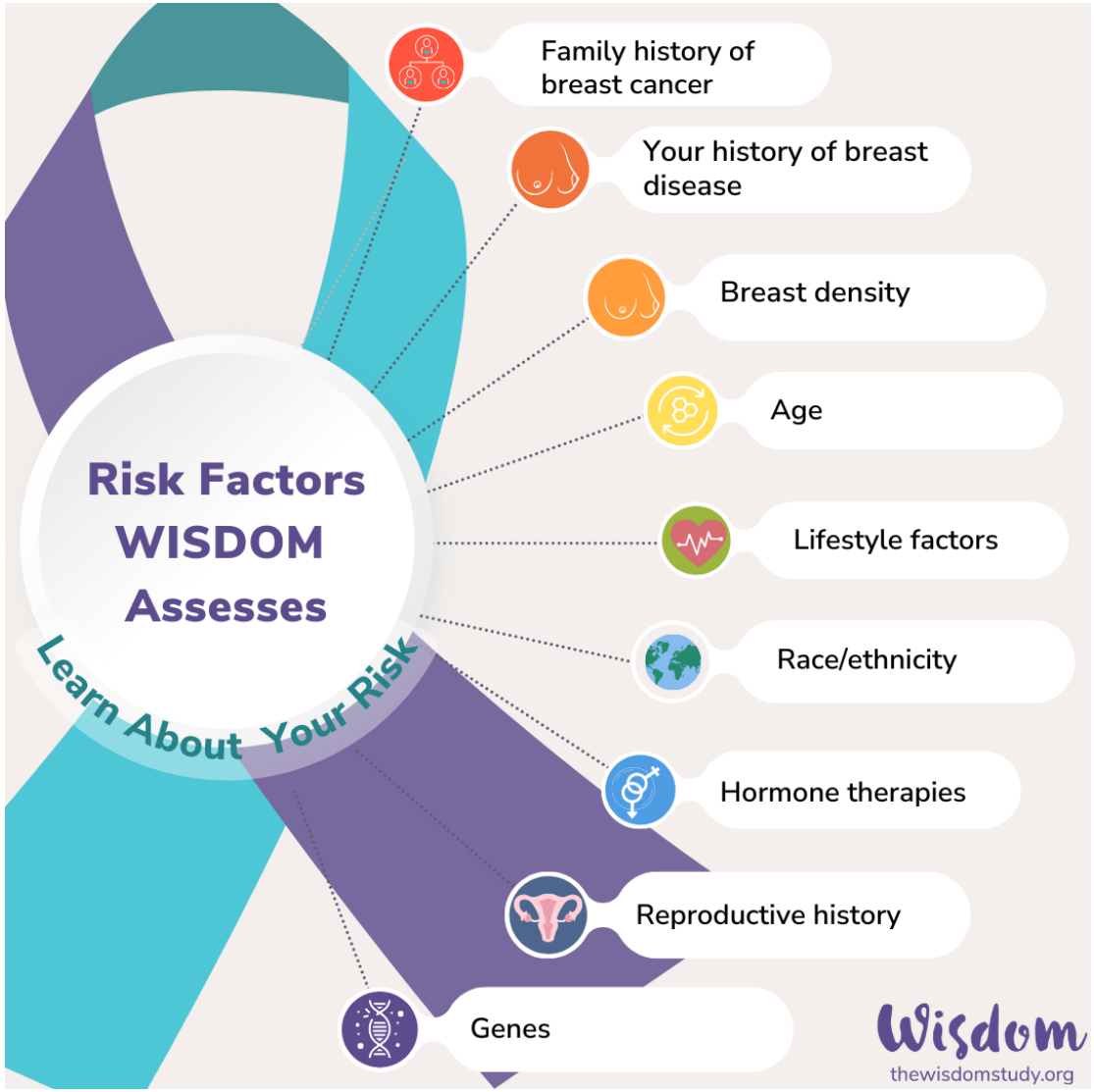
The Wisdom Study

Revolutionizing Breast Cancer Screening to Improve Women's Health

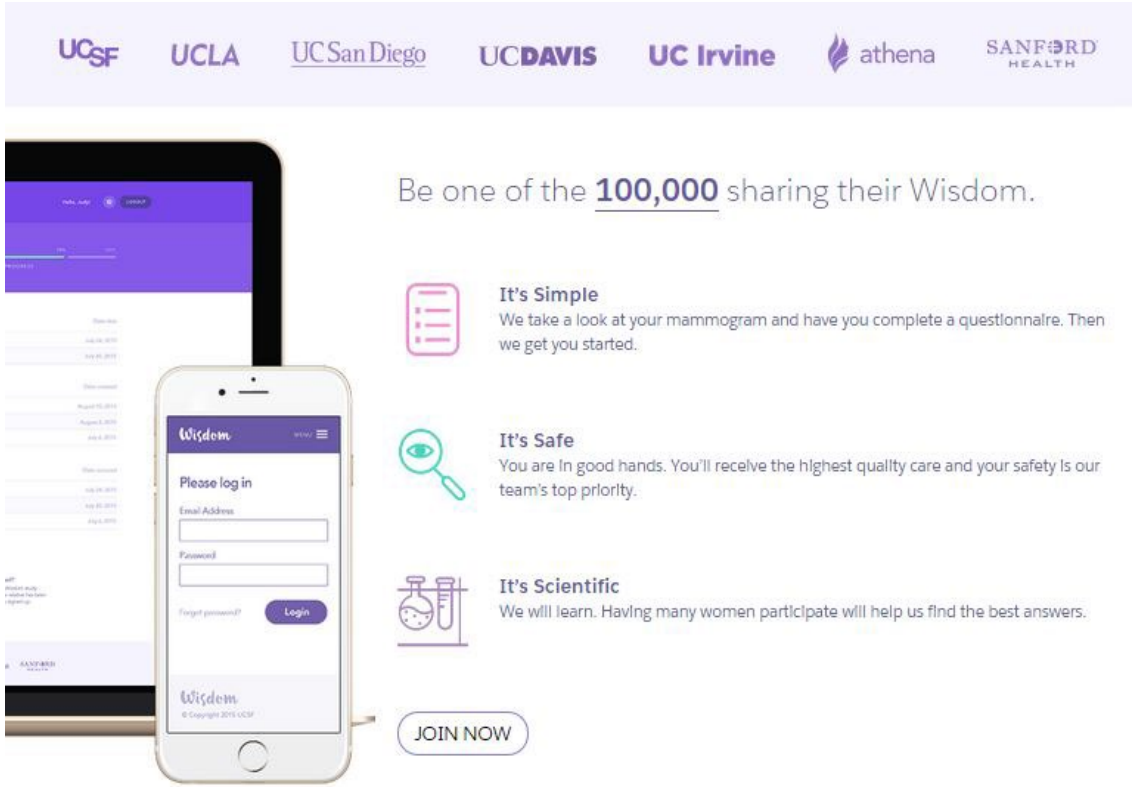
Women Informed to Screen Depending on Measures of Risk

Risk factors contributing to breast cancer



Comprehensive risk prediction model

- Validated high-impact risk factors including
  - Exposures/Lifestyle
  - Breast density
  - 9 breast cancer genes
  - SNPs polygenic risk score
    - 76→303 SNPs
- Tailor screening/prevention plans
  - Age to start/stop
  - Frequency
  - Screening modality
  - Risk reduction



Wisdom
thewisdomstudy.org

What is WISDOM

*(**W**omen **I**nformed to **S**creen **D**epending **O**n **M**easures of risk)*

A landmark, nation-wide study working to modernize our approach to breast cancer screening, detection & prevention

Testing a new approach to screening:

Personalized Screening

- Complete a risk assessment online, plus a genetic test
- WISDOM designates your screening schedule based on your risk category

Vs.

Annual Screening

- Complete a risk assessment online
- Get annual mammograms as you normally would as part of standard of care

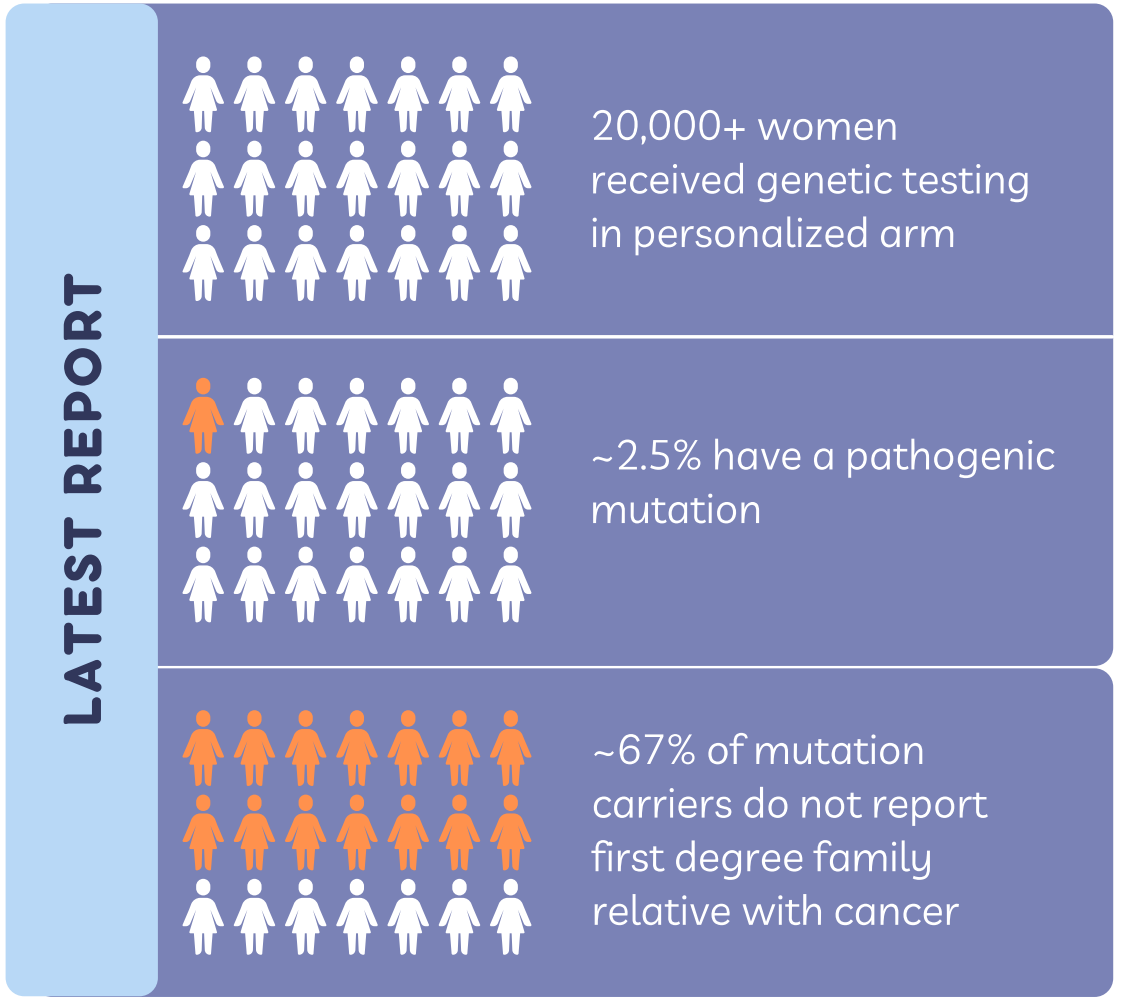
Wisdom

WISDOM 1.0:
Study Questions About Personalized Screening

1. **Safety** – Is it just as good at avoiding high risk cancers?
2. **Morbidity** – Will it reduce biopsies & false positives?
3. **Prevention** – Will it encourage prevention in high-risk women?
4. **Acceptance** – Is it accepted by women?
5. **Value** – Is it better?

New findings through WISDOM

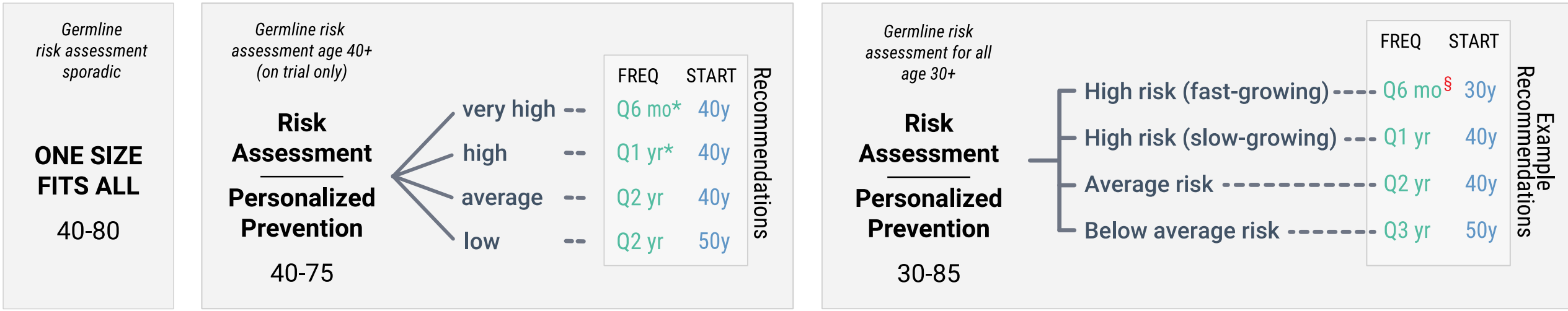
- **Final results in 2025, but safe so far**
- **Population based genetic testing feasible and not harmful**
  - **2.5% of our enrollees are mutation carriers**
  - **67% of them did NOT have 1st degree relatives with cancer**
- **Why is this important?**
  - With standard of care genetic testing practices, mutations could be missed
  - We should look earlier- age 30
- ***What we are learning through WISDOM could change the status quo***



Why is this study Critical For Women?

- Answers a big and intractable question
- Allows us to bring screening into the precision medicine era
- Begin to learn who is at risk/for what kind of breast cancer
- Provides a framework to determine risk, improve screening, educate/involve women and integrate risk reduction
- Breaks down barriers so more women can participate
- Answers will be relevant to all communities of women

Moving One Step Earlier:
Risk Assessment as a Gateway for Screening AND Prevention AND Prompt Diagnosis



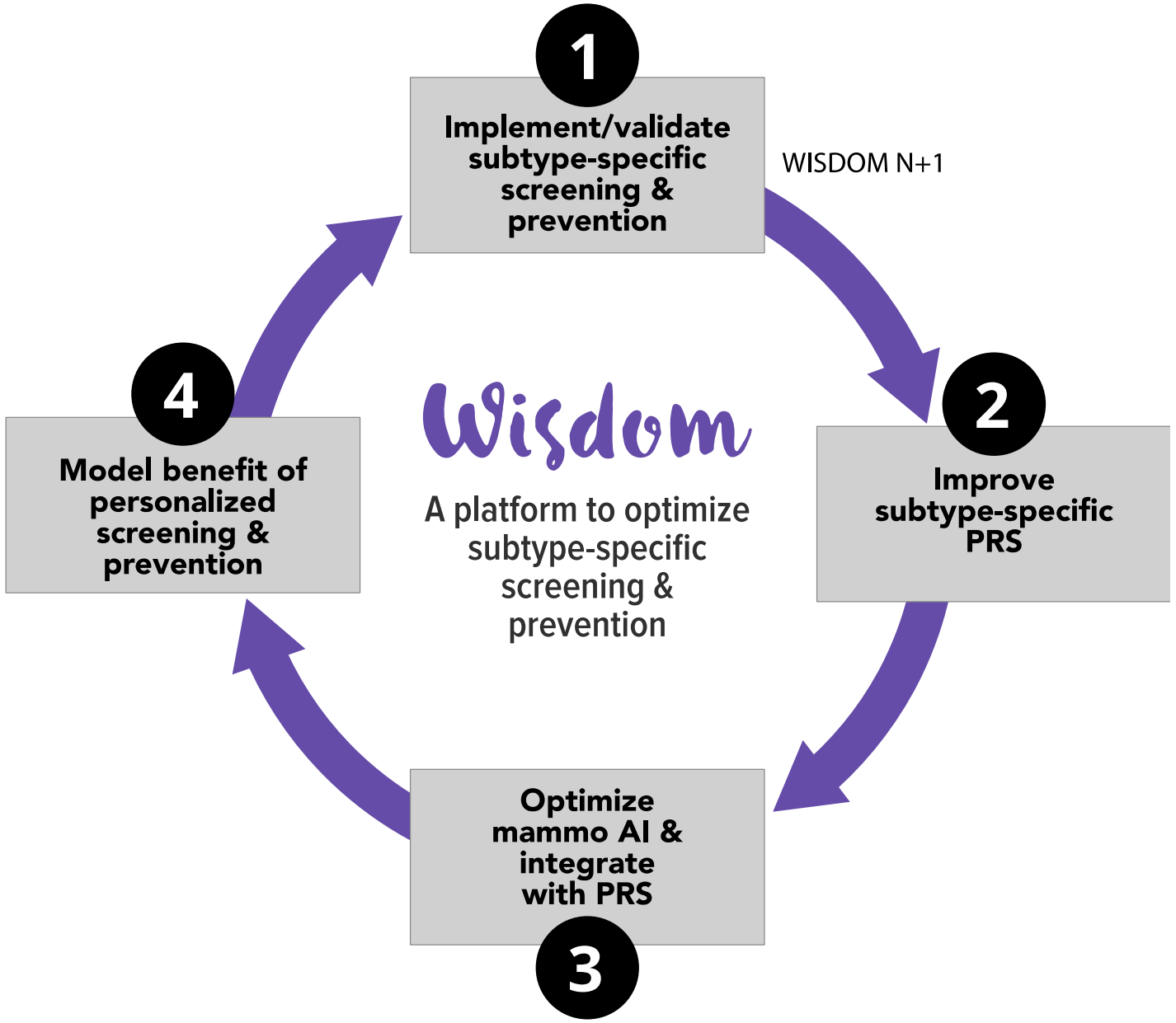
45,000 women

Target: 50,000 women
To Date: 10,000 women

Wisdom Women Informed to Screen Depending On Measures of Risk

WISDOM: A Continuous Learning System

Women
Informed to
Screen
Depending
On
Measures of Risk



Polygenic risk score

(“nature’s poker hand”)

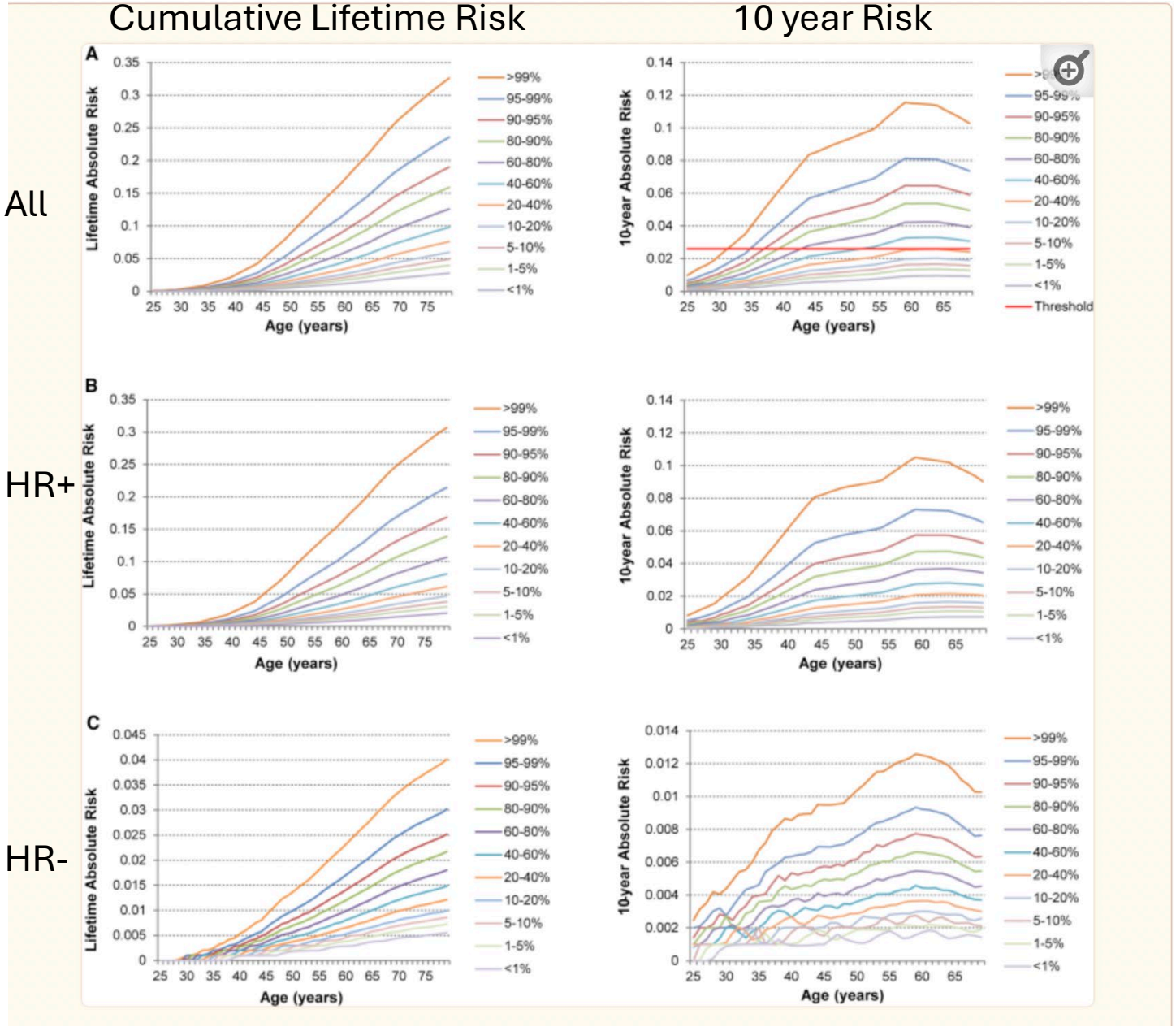
- Imagine getting dealt 300+ cards
- Most people have mix of high and low
- Some people get a lot of high/low

- The decks used might depend on your ancestry
- Some cards count more than others but it’s the total value of the hand that determines PRS
- Researchers are working on the best way to determine how to add these up: Your cards won’t change, but the way we score a hand can (and will?) change

The highest PRS confers very high risk;
Lowest may not need screening

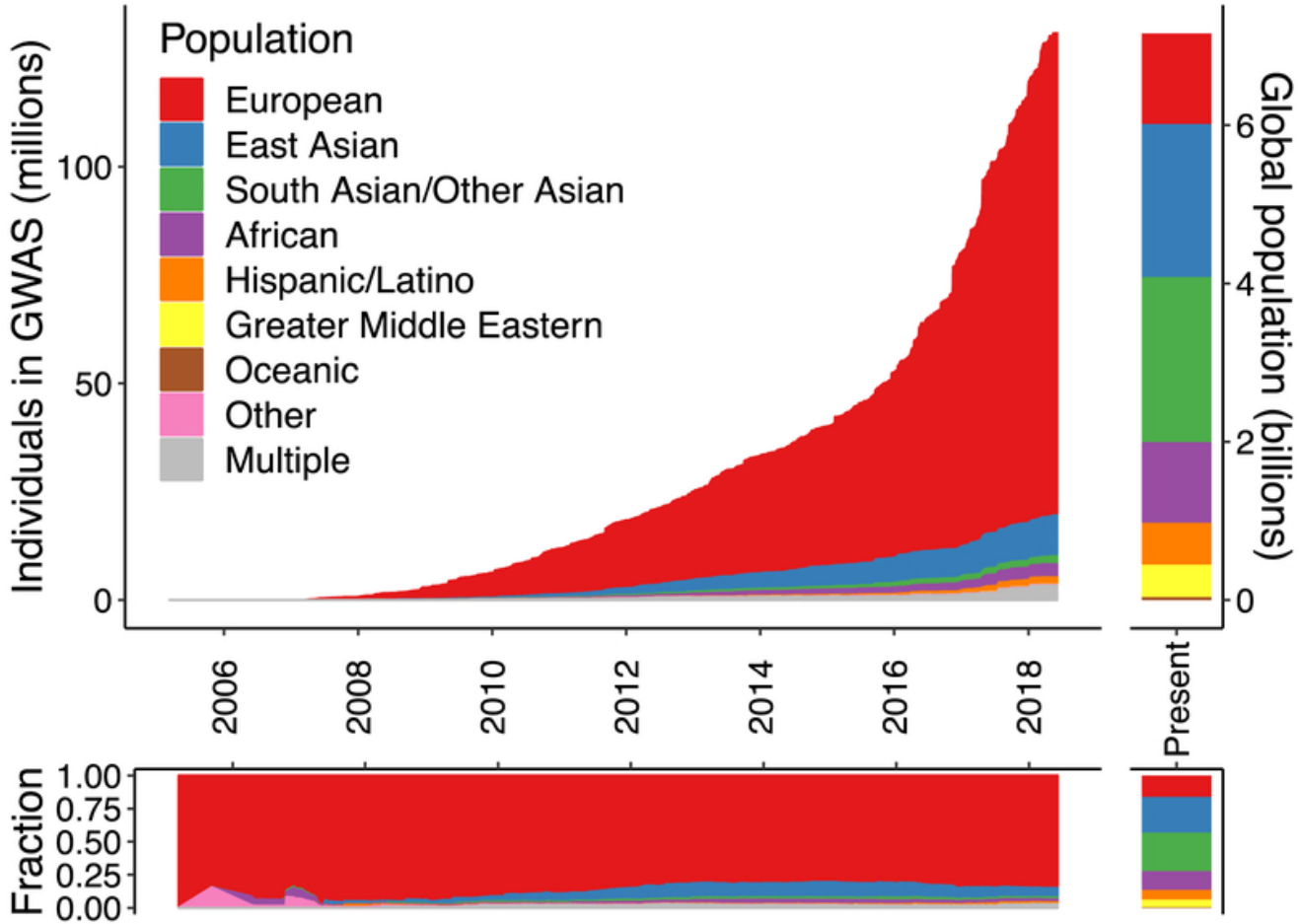
PRS for HR negative improving

PRS for fast growing being validated (I-SPY)



Mavaddat et al J Natl Cancer Inst. 2015 May; 107(5): djv036.
Published online 2015 Apr 2. doi: 10.1093/jnci/djv036

Low representation of non-White groups: No Participation No Representation



Ancestry of participants in risk studies over time
(Martin et al, 2016 Nat Genet.)

Persons of European ancestry are ~16% of global population but make up 70% of risk studies

- Availability
- Accessibility
- Participation

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thewisdomstudy.org

Current NCCN guidelines:

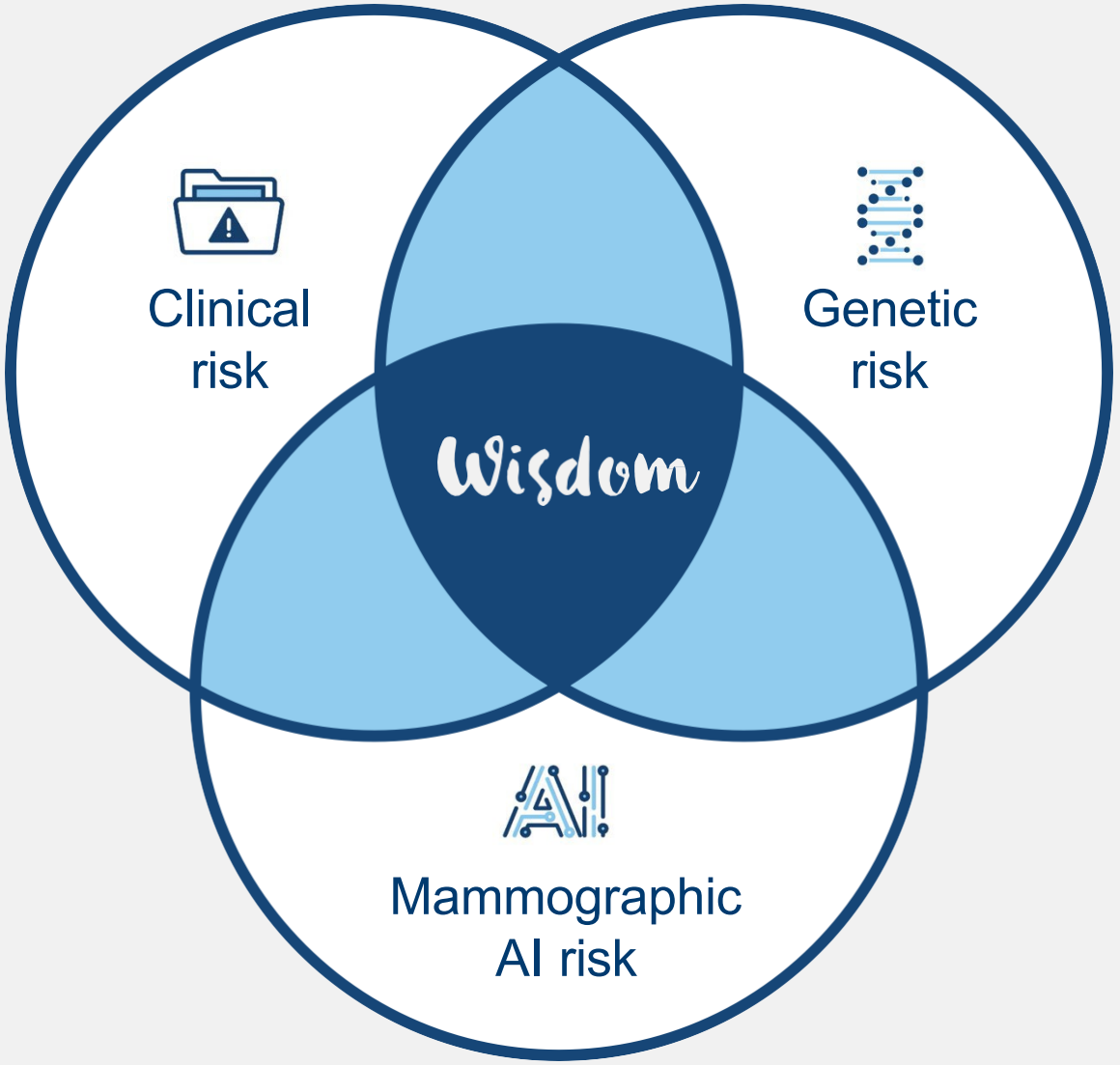
National Comprehensive Cancer Network®

NCCN Guidelines Version 2.2024
Breast Cancer Screening and Diagnosis

"Ongoing validation studies using the PRS polygenic risk score are underway, including those with diverse populations.
At the present time, PRS would be best utilized in the setting of a clinical trial."

PERSONALIZED SCREENING

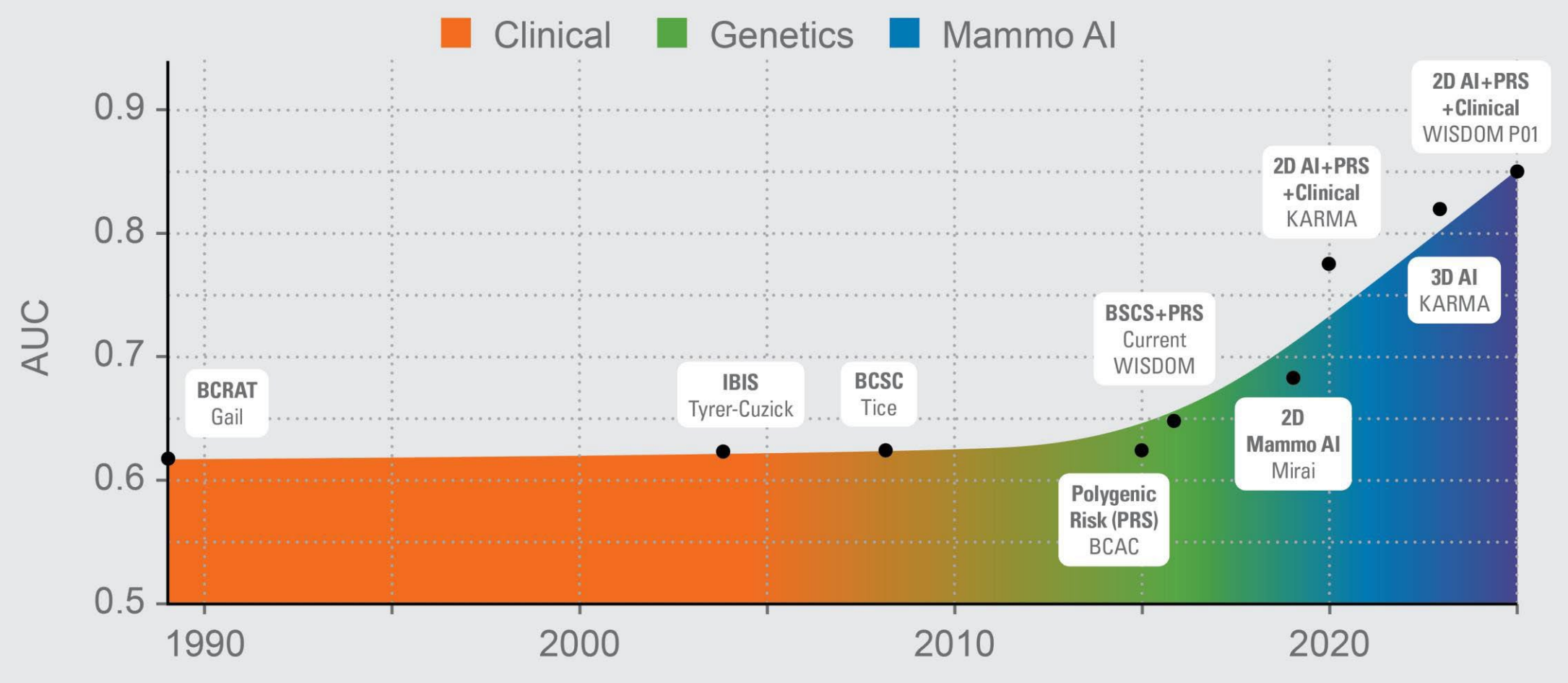
WISDOM 3.0: AI + Genetic + Clinical risk



313: PRS for hormone +
330: PRS for HR-
PRS for fast growing

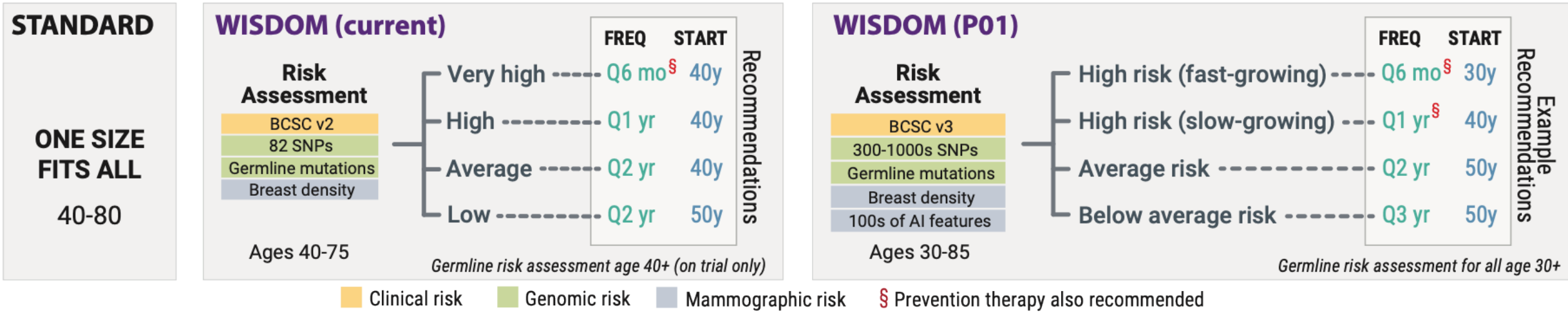
PERSONALIZED SCREENING

Breakthroughs in Breast Cancer Risk Models



PERSONALIZED SCREENING

WISDOM Study Evolution



2016-2023

2023-

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How Can You and Your Patients Participate?

www.thewisdomstudy.org/optum

Personalized Screening Group

RISK FACTORS

- **Mammogram**
  -breast density
- **Health Questionnaire**
  -family history, comorbidities, previous biopsies, age, race/ethnicity, BMI, Menopausal status
- **Genomic profiling via saliva**
  -9 Gene Panel,
  - SNPs for polygenic risk

SCREENING RECOMMENDATIONS (based on risk)

Guidelines-based Frequencies

- No screening until age 50
- Every other year (biennial) mammos
- Annual mammograms
- Annual mammograms + MRI

ADDITIONAL SERVICES

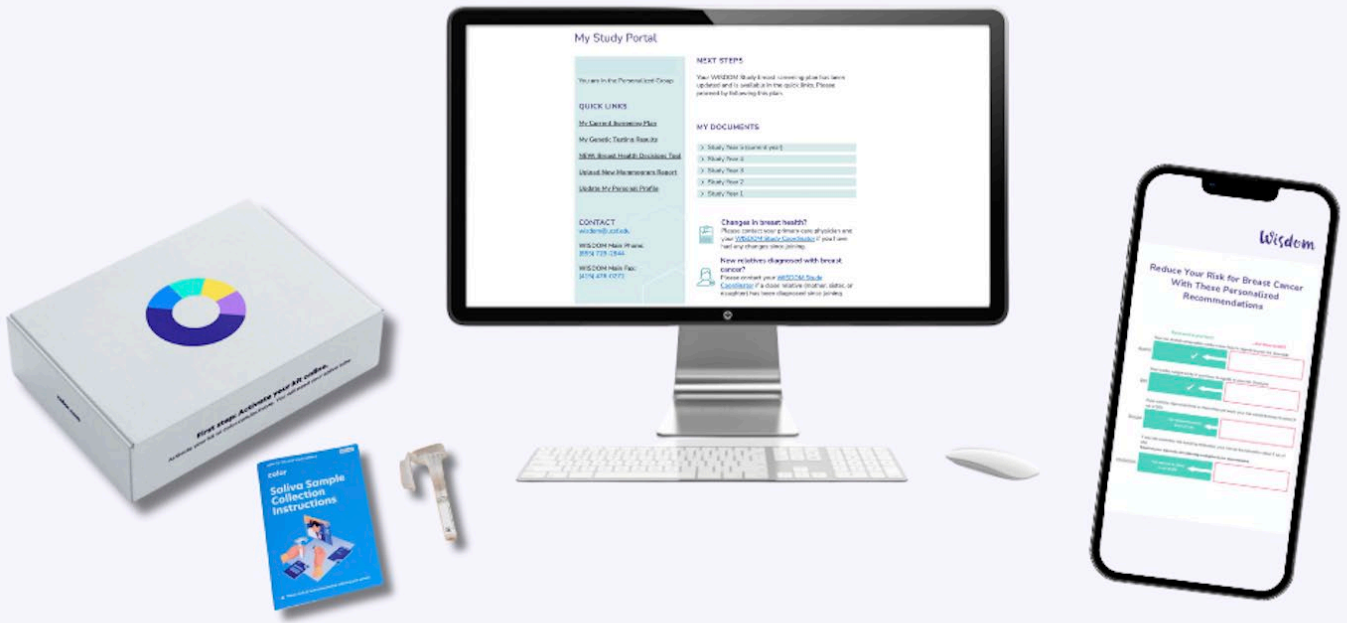
Breast Health Decisions Tool available to all Personalized Group

Highest Risk get 1:1 consult with Breast Health Specialist for in-depth discussion on risk factors & option to reduce risk

Risk Model in WISDOM:

Breast Cancer Surveillance Consortium (BCSC) plus Polygenic Risk Score

A look inside Wisdom



- At-home genetic test kit looking at breast cancer related genes
- Online questionnaire about your health
- Personalized breast cancer screening plans based on your risk factors
- Online breast cancer prevention guidance customized to you
- 1:1 consult with our Breast Health Specialists for prevention guidance
- Access to the nation's leading breast health experts

- No cost to participate!

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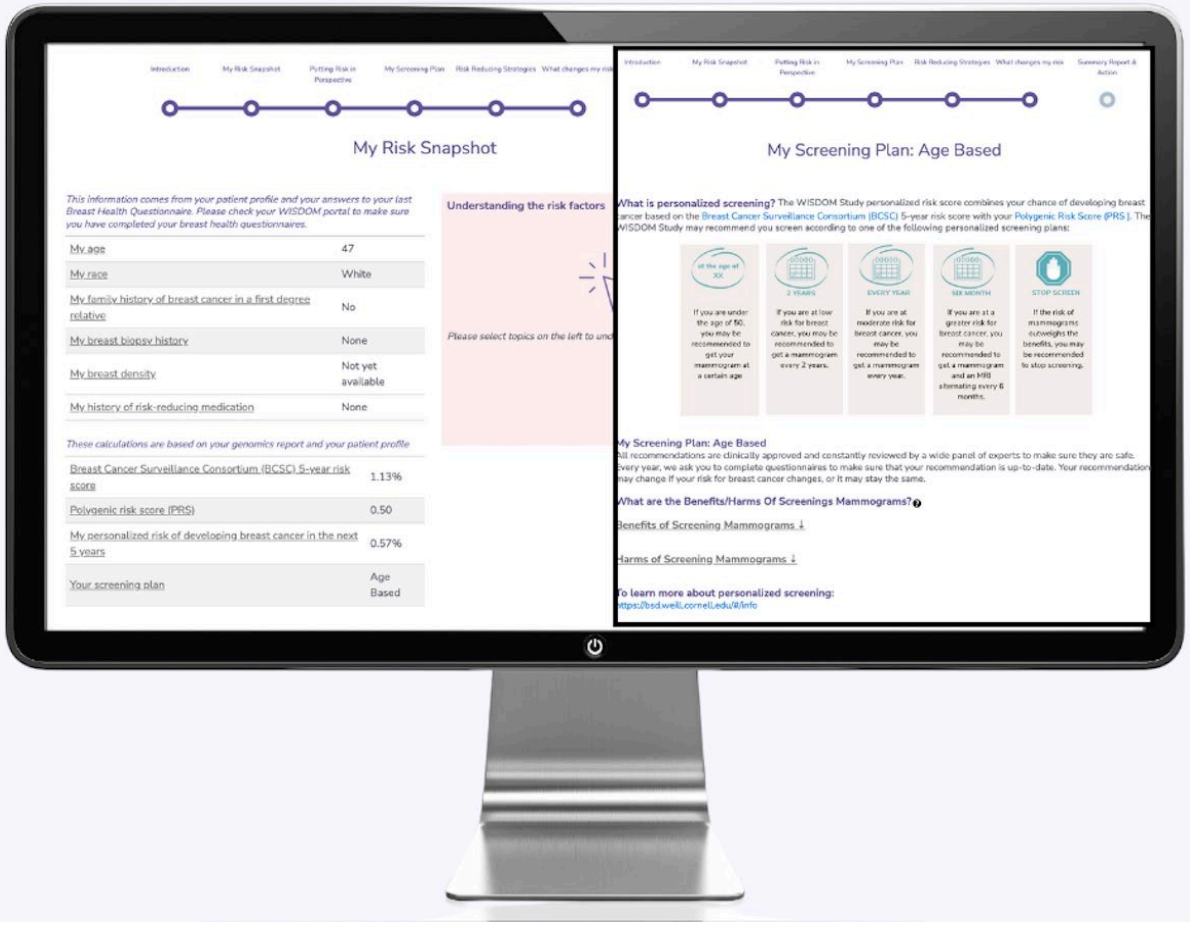
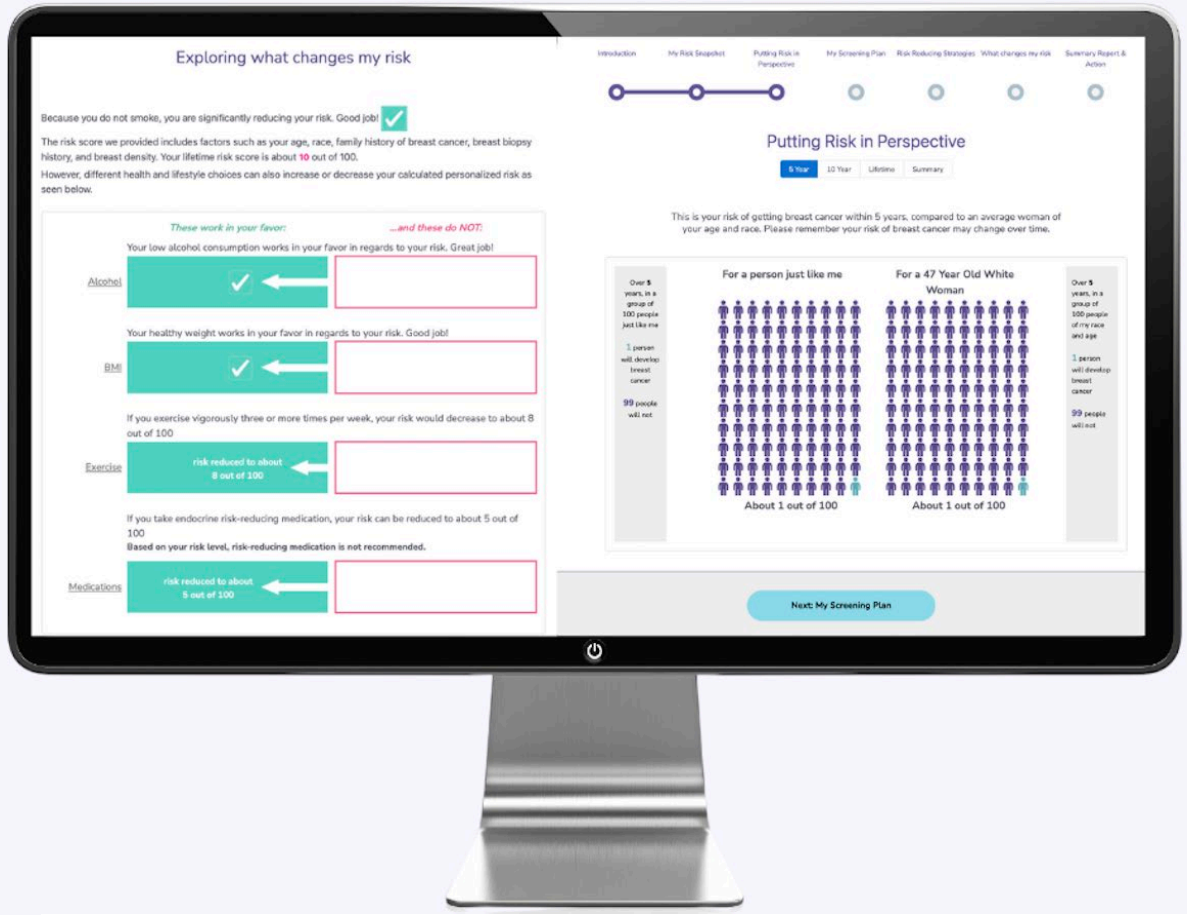
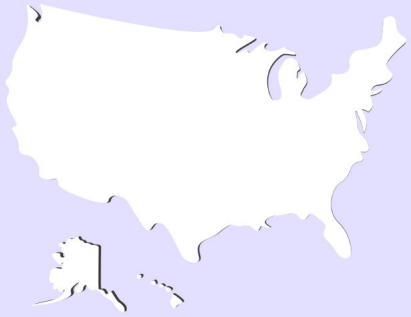
Breast Health Decisions Tool: Risk & Prevention Education





WISDOM's Impact to Date

Enrollees in each of the 50 states



3000+

Completed Breast Health Specialist Consultations

75k+
Registered

60k+
Consented

49k+
Enrolled

Over 24,000 completed genetic tests

Population based testing

25%

Under-represented minorities, improvement from <20%

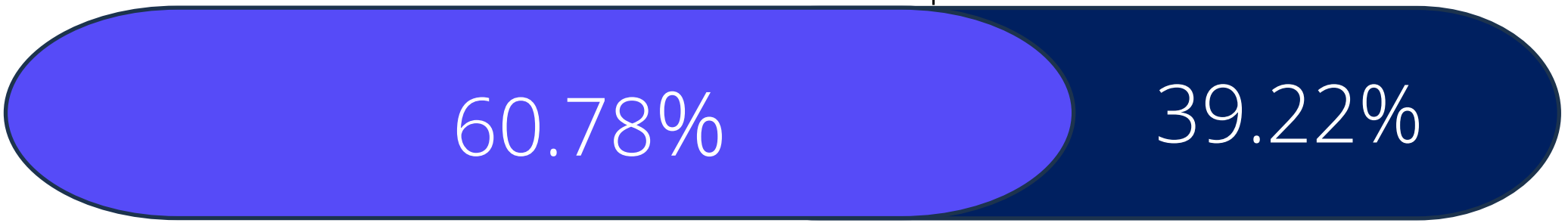
Improvements in Racial and Ethnic Diversity

- Significant improvement in representation since 2020
- 1.7% Black/African American participants through 2019; in Q3 2024, WISDOM included over 24% Black/AA participants
- Overall study numbers show gradual improvement each quarter and year

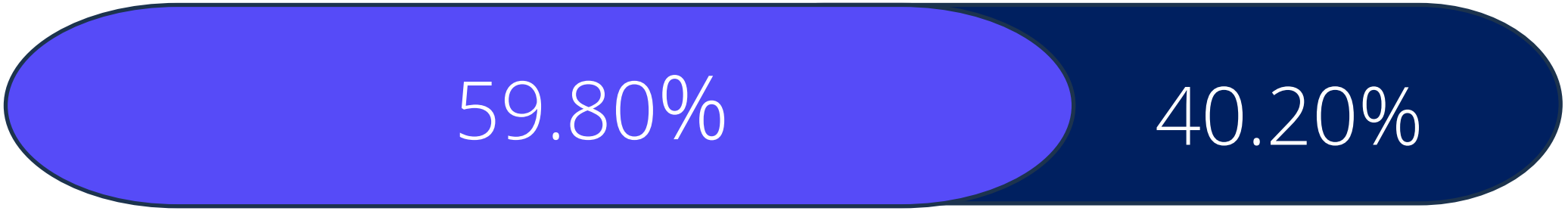
	White alone, non-Hispanic or Latino	Black or African American alone non-Hispanic or Latino	American Indian and Alaskan Native alone non-Hispanic or Latino	Asian alone, non-Hispanic or Latino	Native Hawaiian and Other Pacific Islander alone, non-Hispanic or Latino	Two or More Race, non-Hispanic or Latino	Hispanic or Latino	Unknown, Prefer not to answer, some other race not listed	Total N
Start-2019	81.4%	1.7%	0.2%	4.5%	0.2%	2.9%	7.9%	1.3%	21,399
2020	74.2%	4.2%	0.3%	6.0%	0.1%	3.4%	10.5%	1.3%	7,725
2021	73.4%	8.1%	0.3%	4.0%	0.1%	0.3%	10.1%	0.8%	10,053
2022	67.1%	11.9%	0.5%	4.6%	0.1%	3.7%	11.5%	0.8%	10,108
All Time (Start-Q4 2022)	75.7%	5.5%	0.3%	4.6%	0.1%	3.2%	9.5%	1.1%	49,224
US Population	*60.1%*	*13.4%*	*1.3%*	*5.9%*	*0.2%*	*2.8%*	*18.5%*	*n/a*	

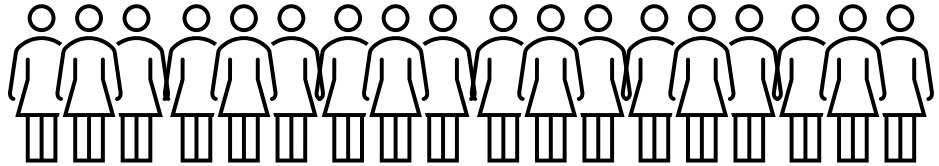
Race and Ethnicity Distribution 2.0

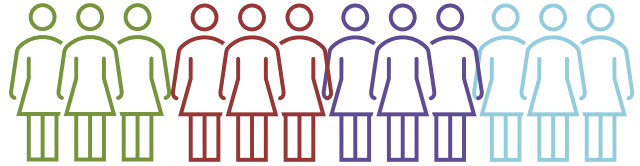
All Wisdom 2.0 Participants



30-39 Years Old in 2.0





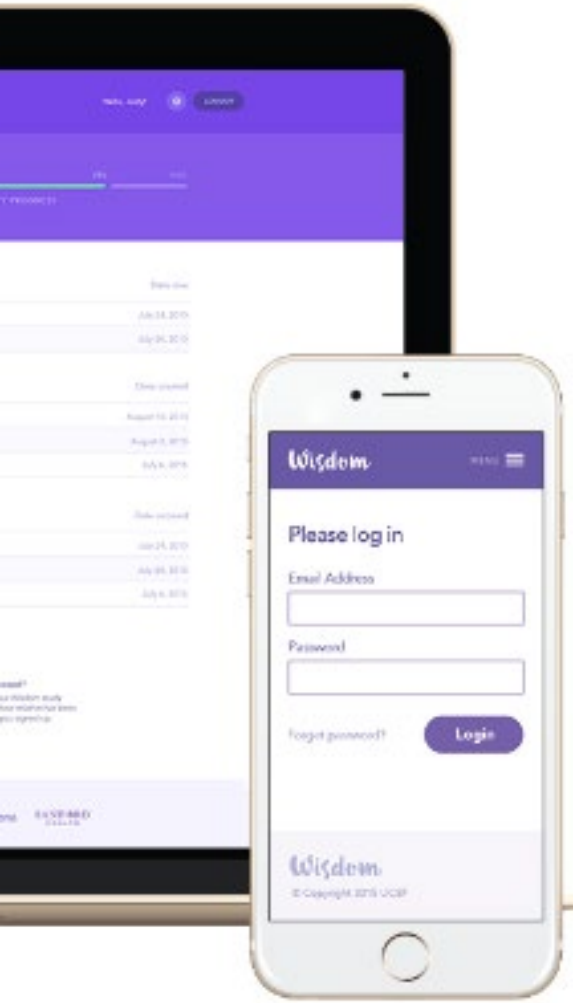


Who can participate?

www.thewisdomstudy.org/optum

- Women 30-74
- Never had Invasive breast cancer or Ductal Carcinoma In Situ (DCIS)
- English and/or Spanish speaking
- Reside in the United States

How do patients participate?



Women enroll and participate online at www.thewisdomstudy.org

- No requirement to travel to a recruitment center
- Mobile, tablets, computers

All study services are rendered virtually

- Breast Health Specialist high risk consultations
- No additional visits

Provide information back to participants

- Deliver screening assignments and genetic test reports to personal participant account

Personal and Confidential

www.thewisdomstudy.org/optum

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Benefits to Participants

www.thewisdomstudy.org/optum

- **Opportunity to receive personalized screening recommendations**
  - Age to start/stop and frequency of screening
  - Type of screening modality (mammography, MRI, etc.)
- **Opportunity to receive no-cost genetic testing not routinely available to those without family history**
  - Includes 9 genes plus millions of SNPs *(soon 29 cancer related genes!)*
- **Access to Breast Health Decisions Tool**
  - Dynamic online tool customized to the participant's risk factors
  - Personalized risk reducing strategies
- **If high risk, 1:1 consult with breast health specialist**
  - 1-hour consult with deep dive into personal risk factors and personalized risk reduction strategies
  - Printable report to share with PCP
- **All study related activities from comfort/convenience of home**
- **All study related activities at NO COST to participant**

Wisdom

How You Can Get Involved

- Recommend the WISDOM Study to your patients --- send them to www.thewisdomstudy.org
- Include WISDOM in your next practice/institution newsletter or email blast
- Share onsite recruitment flyers/QR codes in your clinic waiting room or patient rooms, or send an EMR message
- Share on your social media (personal, professional or your organization's)
- Spread the word with your colleagues, community (friends, school groups, professional organizations), friends and family
- Join us for our monthly Community Forums (last Monday/month, 4pm PST)

Contact us and we can share more ideas: wisdomcommunity@ucsf.edu

www.thewisdomstudy.org/optum

Lessons Learned

- Need partnership with local providers to support prevention in high-risk women
- We encourage participants to follow our guidance, but if you do not, stay engaged and inform the study of your screening plans
- Important to enroll those who are
  - willing to consider a recommendation that may differ from yearly mammograms
  - looking for a more comprehensive approach to risk assessment to guide screening

Wisdom

Join Us!

- Link to join the WISDOM Study: www.thewisdomstudy.org
- Central WISDOM contact: info@wisdomstudy.org
- Operational/leadership contact: Allison Fiscalini (Allison.stoverfiscalini@ucsf.edu)

www.thewisdomstudy.org/optum

Funding Acknowledgements

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- Department of Defense (DoD)
- Breast Cancer Research Foundation
- Robert Wood Johnson Pioneer Pitch Award
- Bright Pink: Mission Partner
- Mt. Zion Health Fund
- Safeway Foundation
- Salesforce
- V Foundation

Wisdom

THANK YOU!

Scan to receive information about WISDOM (flyers, postcards, etc) from the study team.

www.thewisdomstudy.org/optum

You Are Invited to Join The Wisdom Study

Learn more and join the study at www.**WISDOMstudy.org**

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