

# Health, Wellness and Cancer Prevention



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# DISCLOSURE

- **Celgene**
- **EISAI**
- **Pfizer**
- **Eli Lilly**

# Welcome

- This guide/talk in no way is to be considered a substitute or replacement for modern medicine and all of its advances.
- It is only an adjunct (in addition to, not in spite of) to appropriate medical diagnostic studies surgery, chemotherapy, biologic therapies, endocrine and radiation therapy;
- All of which I am a proponent and advocate, under the right medical conditions and in the appropriate patient.

**Fighting Cancer through  
Nutrition  
and Lifestyle changes**

# Dedication

To The Fallen and The Standing Patients

Along the way.

Here's to the Wives,

And the Mothers,

The Sisters and the Daughters

Who made a difference

And guided the way.

**Thank You.**

We are still trying.

# Silva's Army

<https://www.facebook.com/silvasarmy>

The image is a screenshot of the Facebook page for 'Silva's Army Community'. At the top, the Facebook logo is on the left, and the login section is on the right, featuring fields for 'Email or Phone' and 'Password', a 'Log In' button, and checkboxes for 'Keep me logged in' and a link for 'Forgot your password?'. Below the login section is a large banner image showing a group of people in pink shirts with their arms raised at an outdoor event. A smaller inset image in the bottom left of the banner shows a sign that reads 'MAKING STRIDES Against Breast Cancer' with the American Cancer Society logo. The text 'Silva's Army Community' is overlaid on the banner. To the right of the banner is a 'Create Page' button and a 'Recent' section showing the year '2013'. Below the banner are navigation tabs for 'Timeline', 'About', 'Photos', 'Likes', and 'Videos'. On the left side, there is a 'PEOPLE' section with '233 likes' and an 'ABOUT' section with a description: 'For Breast Cancer patients, their family and friends.' and a link to 'https://twitter.com/SilvasArmy'. The main content area shows a post from 'Silva's Army' dated 'October 15' with a photo of a sign that says 'OSUKEE' and 'MAKING STRIDES Against Breast Cancer'.



3-day Breast Cancer  
Walk,  
April 19-21, 2002



“I Would Walk to  
Heaven  
To Bring Her Back”















**SILVA'S ARMY**  
**2014 TOP TEAM**  
**OCTOBER 11, 2014**  
**MARLINS PARK**







# Countries Involved



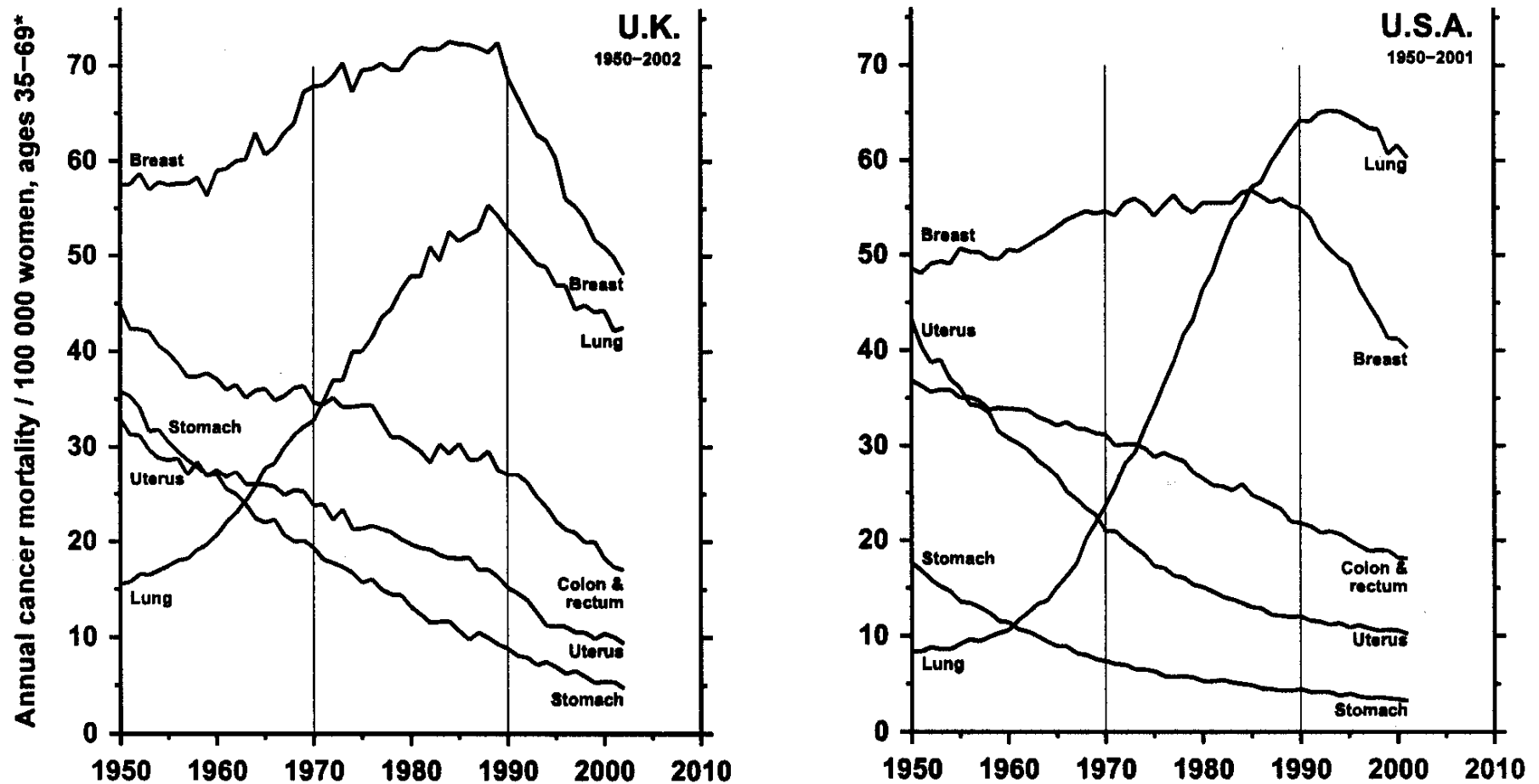


Breast cancer is the most common malignancy and the second most common cause of cancer-related death in Western European and North American women.

- In 2017, more than 246,600 women were newly diagnosed with breast cancer in the US.
- More than 40,000 were expected to die from the disease this year.

# Cancer Mortality Rates over the Past 50 Years

Figure 14: Trends since 1950 in age-standardised (35-69) death rates, comparing breast and selected other types of cancer: UK, USA, Netherlands and France



## Question

**Systemic Inflammation ie.  
Metabolic syndrome is associated  
with:**

- A. DM II**
- B. CAD**
- C. Depression**
- D. Cancer**
- E. All of the above**



How can  
the organ that nurtures us  
with life,

become the executioner  
of so many ???

# Breast Cancer Risk Factors

- Gender
- Age
- Hormonal Factors
  - Early menses
  - Late menopause
  - No pregnancy
  - Late pregnancy
  - No lactation
  - Other Estrogens
- Mammographic Breast Density
- Family history
- Inherited Susceptibility Genes
- Diet/ETOH consumption
- Radiation
- Benign Breast Disease
- Ethnicity

# Endocrine Disrupting Environmental Toxins

- Organochlorines
- Biphenyl A (coated receipts)
- PBBs (flame retardants Polybrominated Biphenyls)
  
- 95% of all U.S adults have BPA in their urine.
- Higher levels of BPA related to Met Syndrome
- Independent risk factor besides lifestyle

# Reversible Biomarkers and Relative Risk

<b>Serum Hormone Levels</b>		<b>2-4X</b> <b>(upper quartile vs lower)</b>
<b>Serum IGF-1,IGF-1/IGFBP-3</b> <b>(pre-menopausal)</b>		<b>2X</b> <b>(upper quartile vs lower)</b>
<b>Mammographic breast density</b>		<b>5X</b> <b>(&gt;75% vs &lt;5%)</b>
<b>Breast IEN</b> <b>(Dx Bx)</b>	<b>Hyperplasia</b>	<b>2X</b>
	<b>ADH</b>	<b>4-5X</b>
	<b>In situ cancer</b>	<b>10-20X</b>

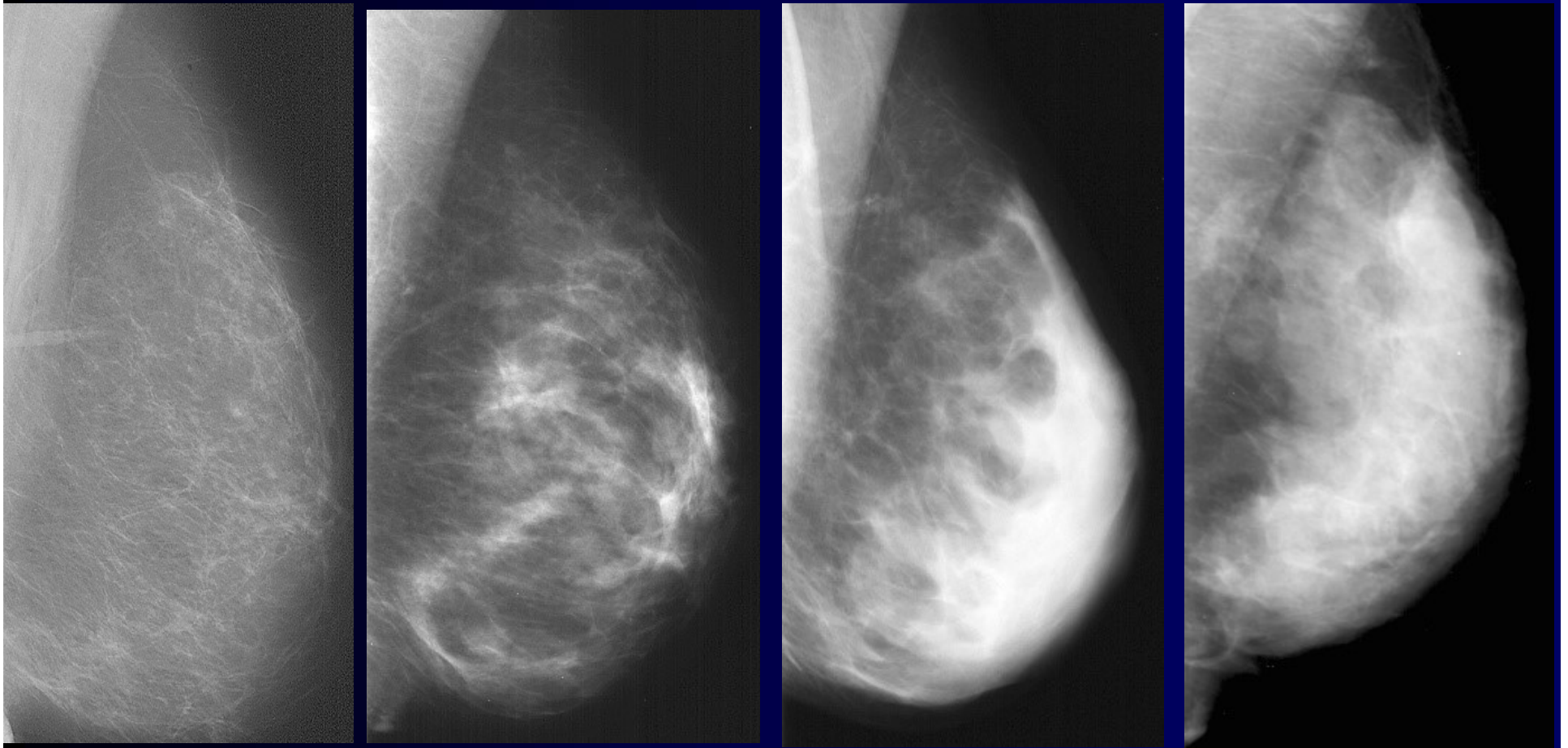
Cummings *et al.* JAMA 281:2189, 2002.

Hankinson *et al.* Lancet 9:1393, 1998.

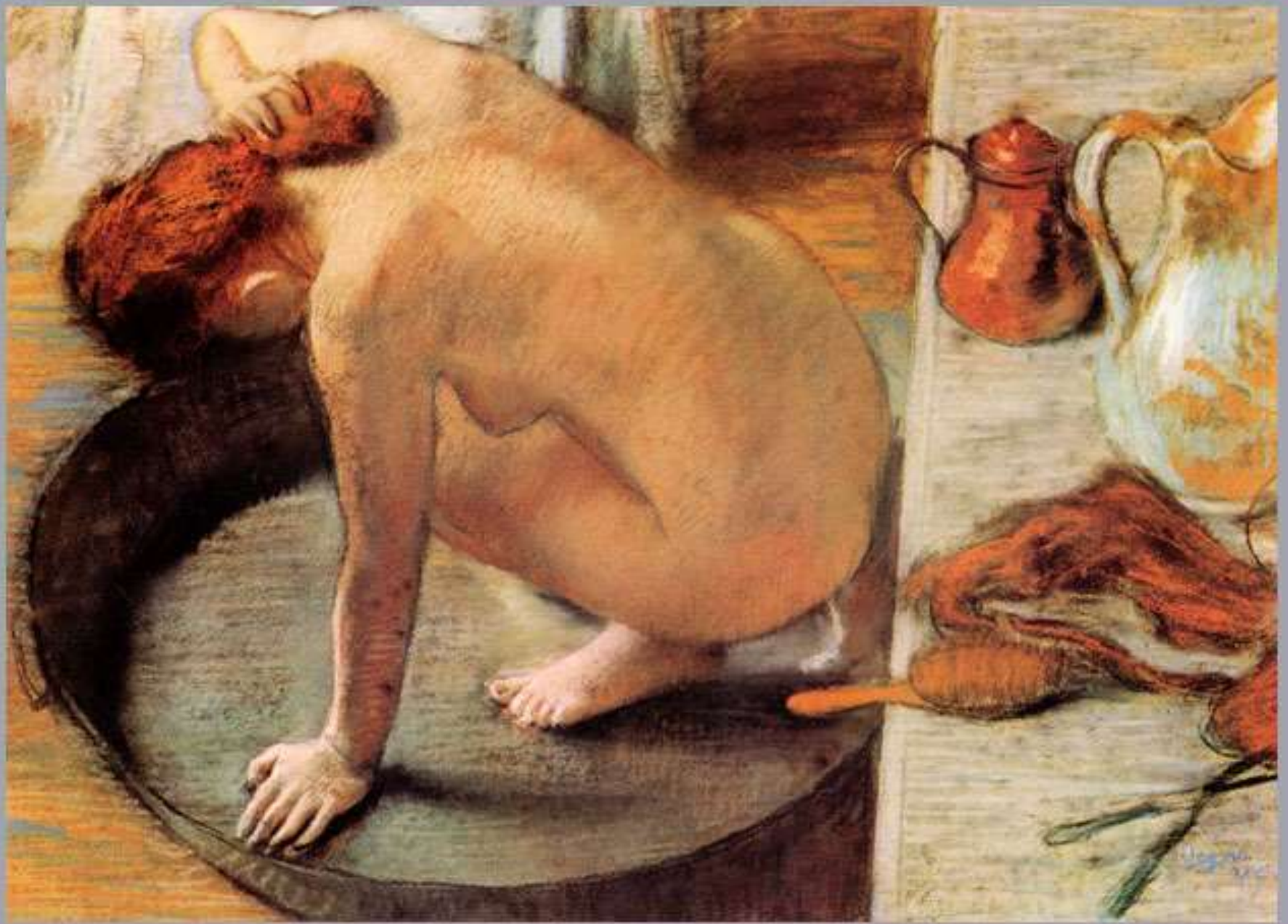
Boyd *et al.* J Natl Cancer Inst 87:670, 1995.

Page & Dupont. Cancer 66:1326, 1990. Hartman NEJM 2005.

# Mammographic Density

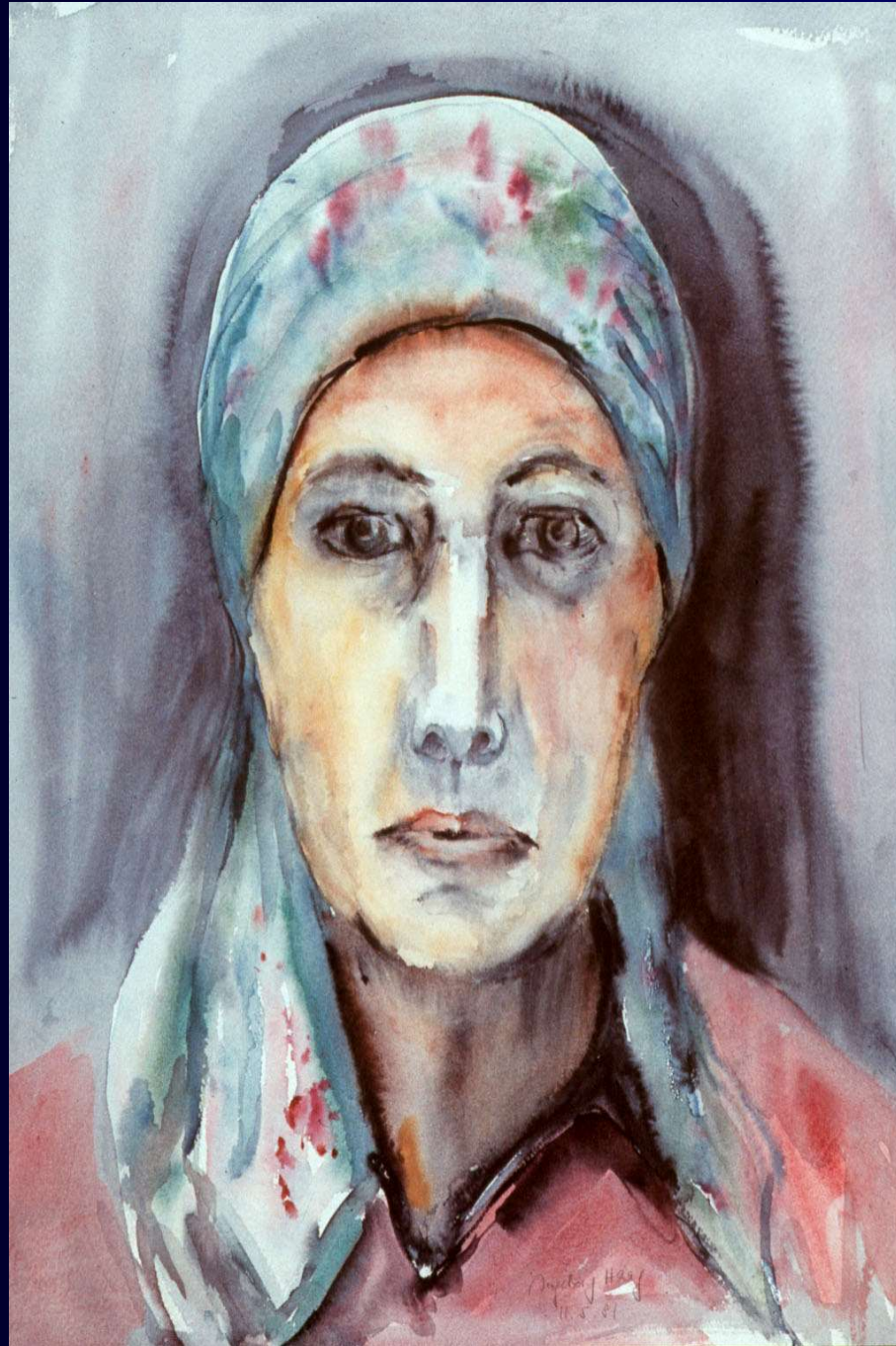






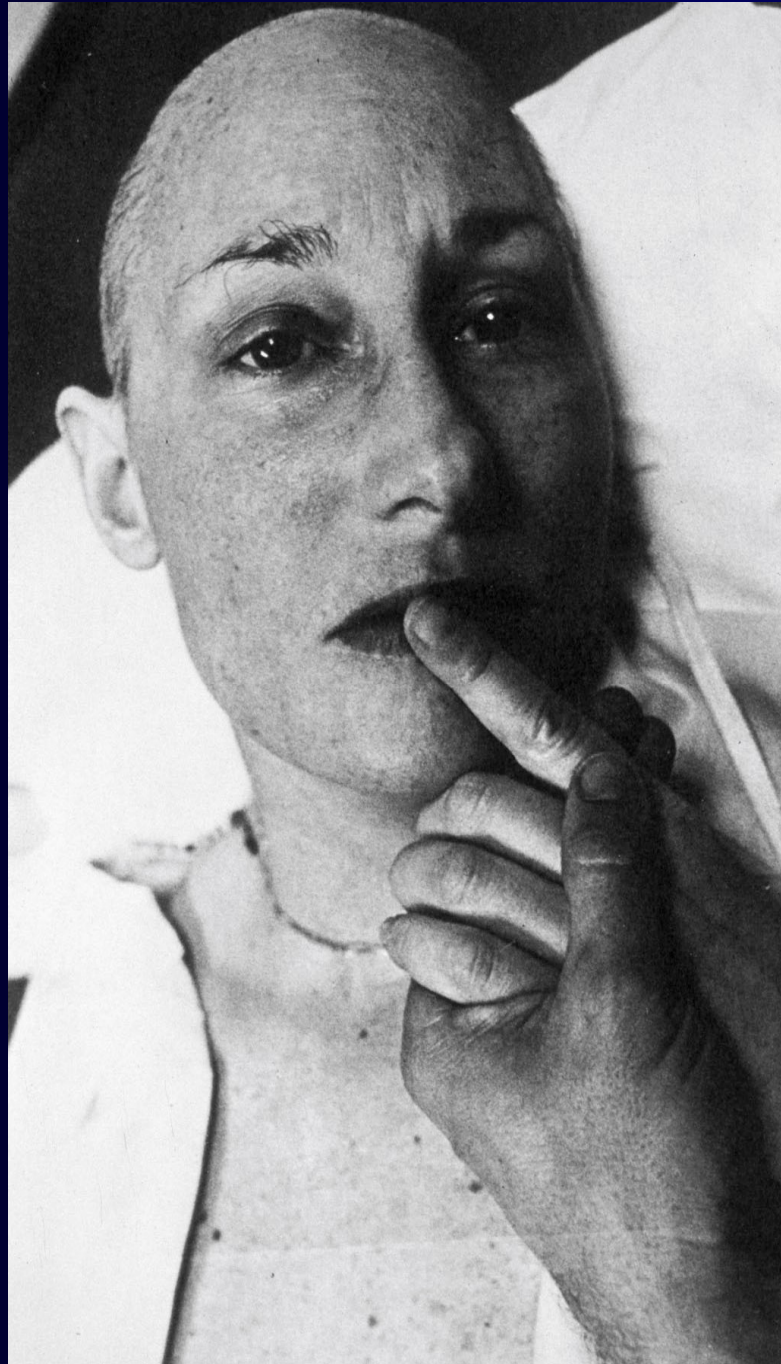












“And Now What???”

It is all in the Genes right?

It's all genetic?

Nigerian Paradox!



*Alzheimer's - Incurable but  
**PREVENTABLE!***

- **The Nigerian Paradox**
- Nigeria should be the country with the highest rate of Alzheimer's due to genetics but, it is actually the lowest in the world.
- **Nutrition can trump genetics!**



# Breast Cancer Risk Factors

- Inflammation!!!

# Fighting Cancer through Nutrition/Activity

## Decreases Inflammation and Increases Immunity

### Metabolic Syndrome

Increased BP  
Increased Lipids  
Central Obesity  
Insulin Resistance  
Skin Tags  
Darkening of Axillary folds

Diabetes  
Mellitus II

Cancer

Inflammation

↓ (IL - 6)

1 disease

↓

different expressions

Alzheimer's  
(Apo E-e4)

Depression

# ANTI-Inflammation!!!

- Inflammation
  - Leading culprit in developing:
    - Metabolic Syndrome/Insulin Resistance
    - Diabetes/Obesity
    - CAD
    - Alzheimer's
    - Depression
    - Cancer

# Metabolic Syndrome

- Centripetal Obesity - belly fat
- Insulin Resistance - High circulating Insulin levels
- High Blood Pressure
- High Lipids
- Acanthosis Nigricans - darkening of the folds around neck and axillas
- Skin Tags around neck and axillas
- High levels of pro-inflammatory cytokines

# Hypertension

- ↑BP can cause LV hypertrophy and can lead to CHF even if EF is normal.
- Women with chronic heart failure, even if asymptomatic have a ↓ mortality by 65%.
- Standard of care is to start dual therapy early even if asymptomatic if EF < 50 (ACE/ARB and BB as 1<sup>st</sup> line therapy) for anthracycline and TKI associated cardiomyopathy.
- B-Blockers - ↑OS in TNBC, in retrospective studies, by ↓ norepi, ↓ angiogenesis and cell migration and may boost immunity.

# Cardiac consultation

- Diltiazem – Interferes with lots of chemo drugs.
- Ondansetron can cause QTc prolongation – Keep K<sup>+</sup>, and Mag on the high normal side!!!

# Functional Derangements in Metabolic Syndrome (JAMA Vol. 292 (23): 2823-4, 2004)

34% of the country

## Atherogenic:

- Insulin resistance +/- glucose intolerance
- Dyslipidemia
- ↑ inflammatory markers (CRP)

## Prothrombotic:

- ↑ homocysteine
- ↑ fibrinogen / ↑ PAI-1
- ↓ Mag

# Obesity at diagnosis is linked to prognosis in breast cancer

*Meta-analysis of 82 studies looking at obesity and survival in breast cancer*

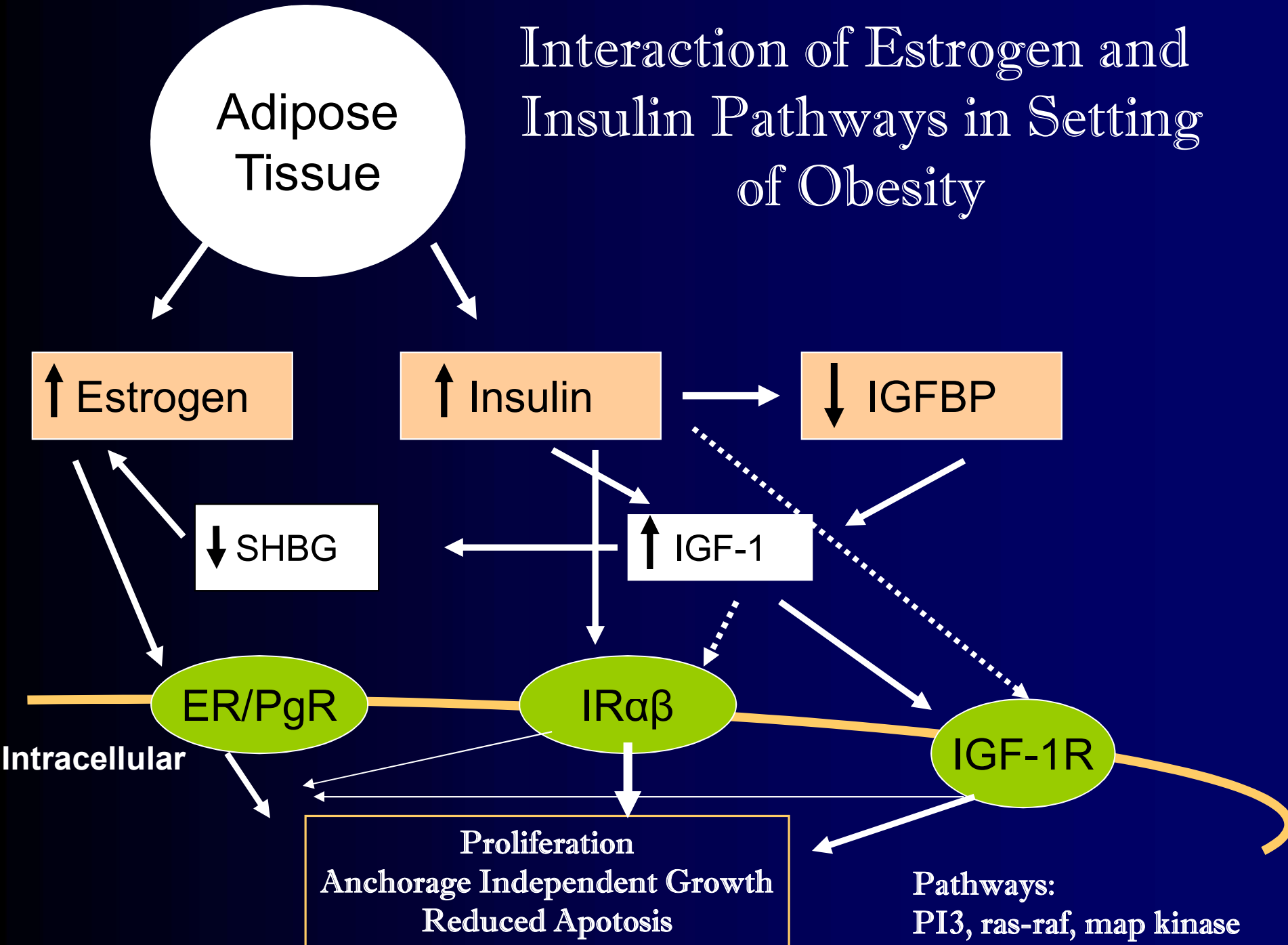
	Breast Cancer-Specific HR [95% CI]	Overall HR [95% CI]
All patients	1.35 [1.24-1.47]	1.41 [1.29-1.53]
Premenopausal		1.75 [1.26-2.41]
Postmenopausal		1.34 [1.18-1.53]

RR, relative risk.

Chan DS, et al. *Annal Oncol.* 2014;25(10):1901-1914.



# Interaction of Estrogen and Insulin Pathways in Setting of Obesity





# **A tumor is composed of:**

- **Tumor cells**
  - **Stem cells**
- **Immune cells**
- **Endothelial cells**
- **Stromal cells**
- **Blood Vessels**

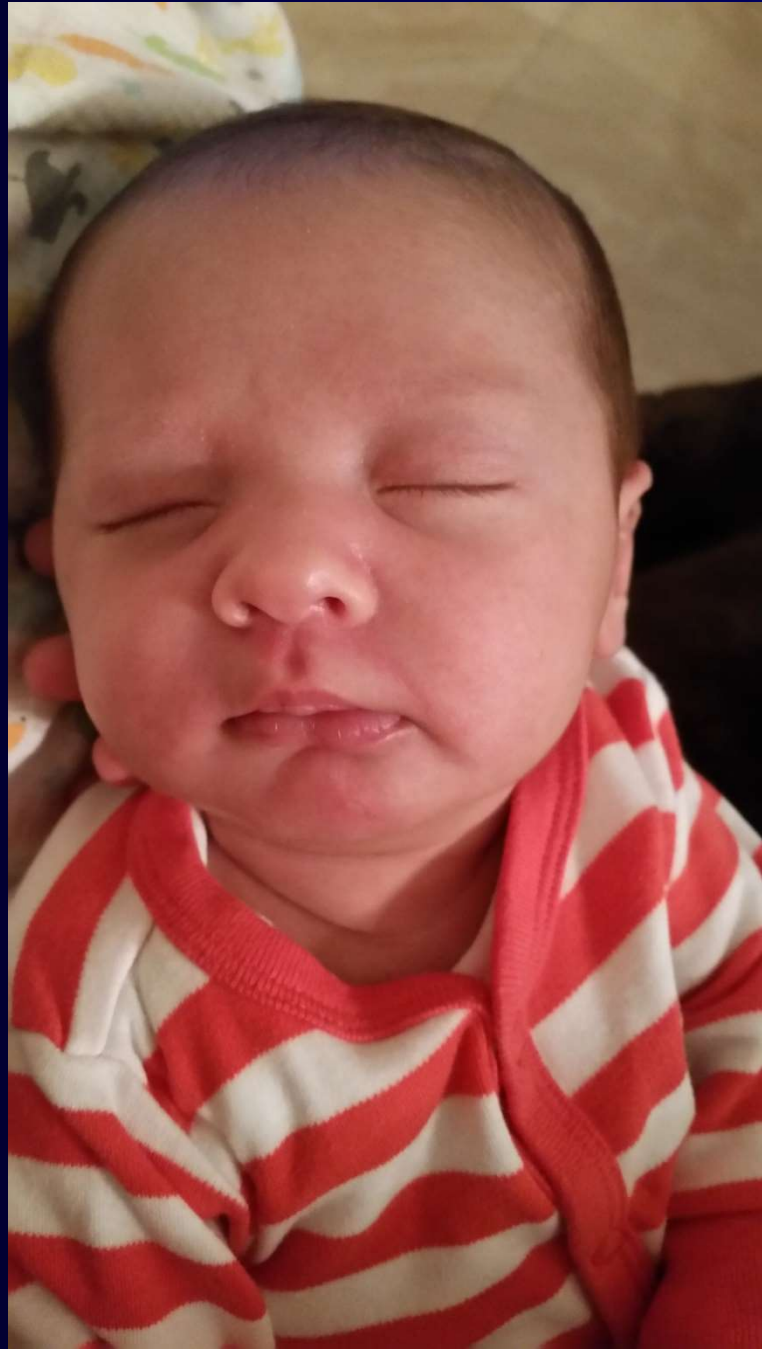
# Obesity in the United States

- In 1999-2002, 34% of adults were overweight and 30% were obese

## *% Overweight Over Time*

Years	'76-78	'88-94	'98-02
 20-74	42.0%	51.2%	61.7%
 55-64	53.7%	66.3%	72.2%







# Potential Mechanisms Underlying Relationship Between Fat Intake or Weight and Breast Cancer Outcome

High intake of dietary fat

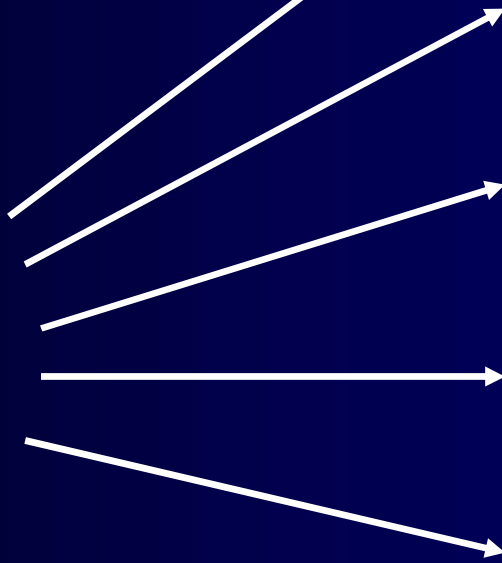


↑  
Estrogens

↓  
Sex Hormone Binding Globulin

↑  
Insulin

Excess weight at dx or weight gain after diagnosis



↑  
Insulin Growth Factor 1 (IGF-1)

↓  
Insulin Growth Factor Binding Protein (IGFBP)

# JAMA

The Journal of the American Medical Association

February 8, 2006

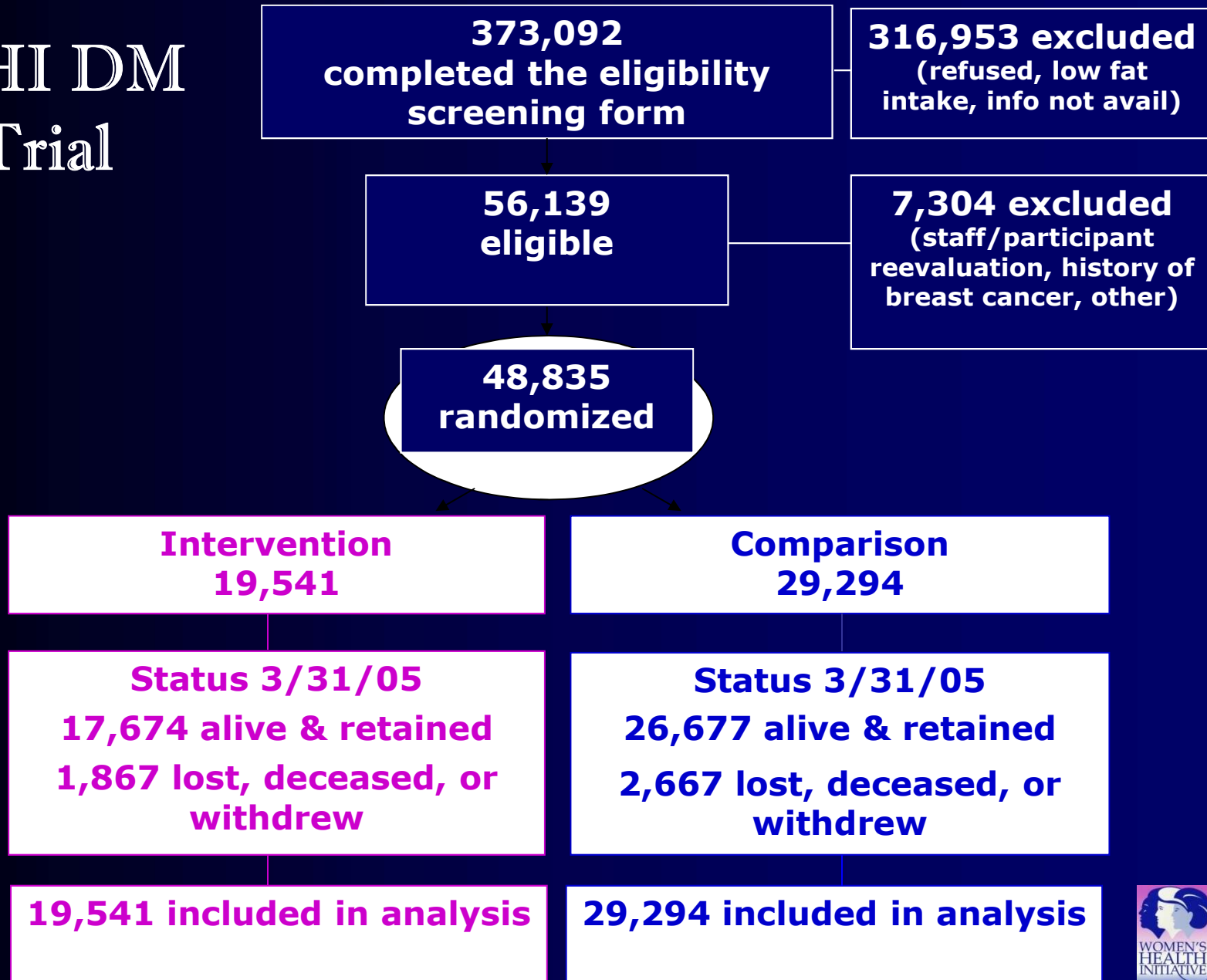
## ORIGINAL CONTRIBUTIONS

- Low-Fat Dietary Pattern and Risk of Invasive Breast Cancer:  
The Women's Health Initiative Randomized Controlled  
Dietary Modification Trial ..... 629  
R. L. PRENTICE, B. CAAN, R. T. CHLEBOWSKI, AND COLLEAGUES

JAMA 2006;295:629-642



# WHI DM Trial



**Dietary**

# Interpretation

- Intensive intervention resulted in significant and sustained dietary fat reduction and vegetable and fruit increase.
- Observed 9% lower breast cancer rate (15% among “adherent women”) but the difference was not large enough to be statistically significant.

# Impact of Weight on Prognosis in Women Diagnosed with Breast Cancer

- Multiple studies have examined impact of weight and/or BMI on breast cancer prognosis
- In review by Chlebowski et al:
  - 26 studies (n=29,460) demonstrated a statistically significant association between increased weight and poor outcome (recurrence or death)
  - 8 studies (n=3,727) revealed no significant relationship

# Meta-analysis Evaluating Measures of Adiposity at Dx and Prognosis

	Recurrence at 5 yrs HR [95% CI]	Death at 10 yrs HR [95% CI]
↑ Body Weight	1.78[1.50-2.11]	1.36[1.19-1.55]
↑ BMI	1.91[1.52-2.40]	1.60[1.38-1.76]

# Nurses' Health Study Analysis of Weight Gain and Breast Cancer Survival

- 5204 Nurses' Health Study participants diagnosed with breast cancer
- Change in BMI calculated from pre-breast cancer dx to first reported BMI  $\geq$  12 months later
- Adjusted for smoking, menopausal status, and relevant breast cancer variables

# Weight Gain After Diagnosis in Never-Smoking Women

	MAINTAIN	GAIN 0.5 to < 2.0 kg/m <sup>2</sup>	GAIN ≥2.0 kgm <sup>2</sup>	
Recurrences*	1.00	1.40 [1.02-1.92]	1.53 [1.04-2.24]	<i>p=.01</i>
Breast CA Deaths*	1.00	1.35 [0.93-1.95]	1.64 [1.07-2.51]	<i>p=.03</i>
All Cause Mortality*	1.00	1.35 [1.00-1.82]	1.59 [1.12-2.27]	<i>p=.04</i>

\*multivariate RR  
95% CI

# Obesity

## Adipokines – 7 Hormones (Resistin)

- Insulin Resistance - ↑ levels of Insulin
- Fat ↑ Estrogen
- ↑ Inflammation





# Diet

- Veggies
  - Spinach/carrots (carotenoids / flavonoids)
    - rich in magnesium & alpha lipoic acid
    - antioxidant
  - Asparagus, beets, broccoli, brussels sprouts, garlic, onions, leeks, kale, cabbage, scallions
- Dark Chocolate
  - at least 99%;
  - Cuna indians from San Blas islands (off the Coast of Panama)
    - lowers BP and rich in oleic acid
- Fruits
  - Berries
  - antioxidants/anti-angiogenesis

# **Dietary Sources of Naturally-Occurring Antiangiogenic Substances**

**Green tea**

**Strawberries**

**Blackberries**

**Raspberries**

**Blueberries**

**Oranges**

**Grapefruit**

**Lemons**

**Apples**

**Pineapple**

**Cherries**

**Red grapes**

**Red wine**

**Bok choy**

**Kale**

**Soy beans**

**Ginseng**

**Maitake mushroom**

**Licorice**

**Turmeric**

**Nutmeg**

**Artichokes**

**Lavender**

**Pumpkin**

**Sea Cucumber**

**Tuna**

**Parsley**

**Garlic**

**Tomato**

**Olive oil**

**Grape seed oil**

**Dark chocolate**

**Others**

Source: Angiogenesis Foundation ([www.angio.org](http://www.angio.org))

# Diet

- Fiber & Grains
  - Walnuts - 14 halves a day, also rich in magnesium
  - 50 grams / day
- Milk – Horizon/Organic Valley Milk (0% Fat)
  - UNSWEET!
  - ALMOND MILK!!!
- Turmeric – inhibits nFKB

# Homemade Almond Milk

1. Soak 1 cup almonds up to 2 days
2. Drain & rinse almonds
3. Blend almonds with 2 cups water
4. Line a glass measuring cup with cheesecloth or nut bag
5. Pour blended almonds in
6. Squeeze & press to extract about 2 cups of milk
7. Refrigerate & use within 2 days



# Black Rice



# Diet

- Fish – Salmon, mahi mahi, cod, halibut
  - rich in Omega-3 fatty acids
- Extra virgin olive oil (Oleic acid)
- ↓ Fat intake
  - eat mono & polyunsaturated fats
  - extra virgin olive oil (Oleic acid)
- ↓ Sugar intake (no sweeteners)-Agave/Stevia
- Limit red meat (avoid processed meat)-Grass fed beef
- Limit salt intake

# Culprits of Derangements

- High Glycemic index (refined sugars)
- Fructose/High fructose corn syrup
- Advanced glycosylation end products
  - caramelized sugars
  - meats cooked high temps (microwaves)
- Transfats and long-chain saturated fats
- ETOH







# ORGANIC Produce Delivery



## My Organic Food Club

Discount Organic Produce - Delivered Fast & Fresh!

**877-832-8289**

# Home Deliveries

## ● Deliver Lean

- [deliverlean.com](http://deliverlean.com)
- Delivers to your home
- Whole Plant based/Gluten free \$9.00/meal
- 15% discount for anyone who mentions "Silva's Army"

## ● My Organic Food Club

- [myorganicfoodclub.com](http://myorganicfoodclub.com)
- Delivers to your home
- organic fruits and vegetables for \$60/box/week.  
Box feeds at least 2 people/week.
- They also have brown rice, grassfed beef, wild caught fish, and shrimp at an additional cost.

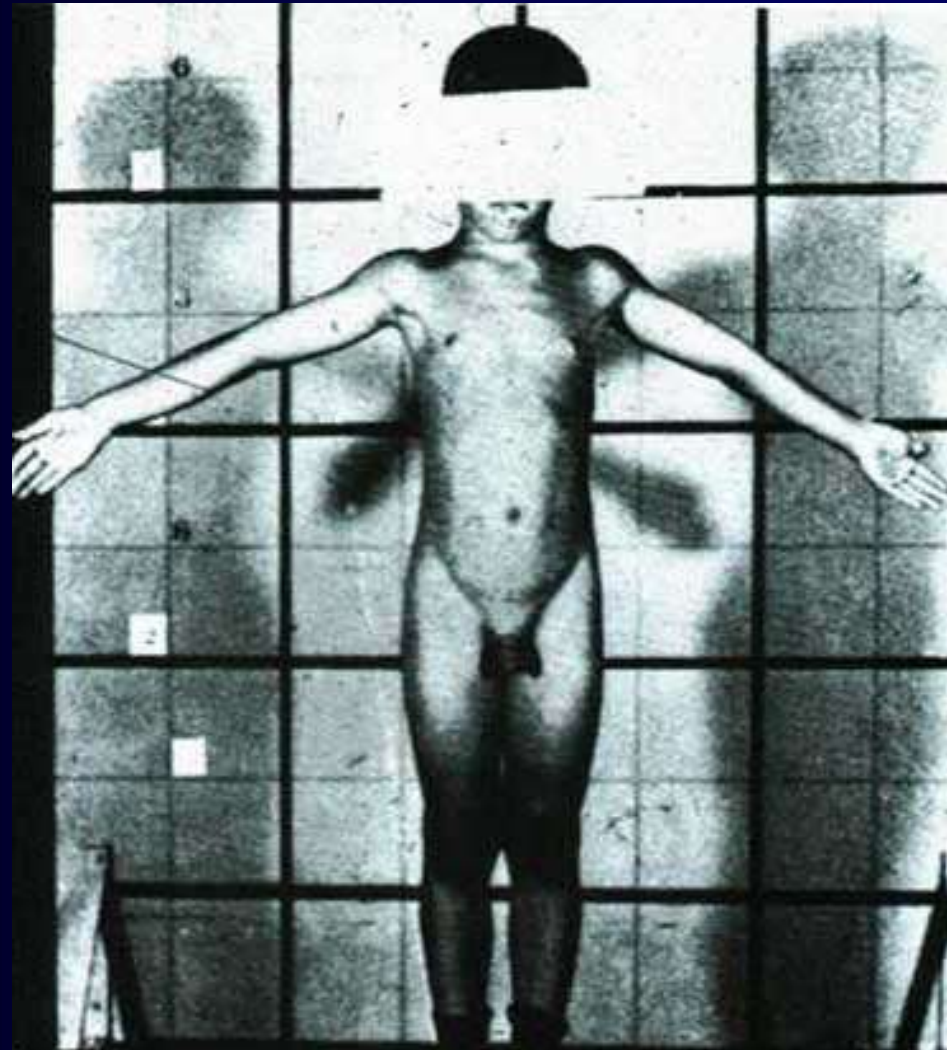
# Oster Steamer

Throw out your microwaves!!!



# Don't go Soy crazy!!!

- It is a Phytoestrogen - becomes estrogen once metabolized



*7 year old boy with breast enlargement.*

*from Hertz, Estrogens in the Environment (1979 )*

# Statins Reduce Breast Cancer Risk

*(Kochhar R, Proc ASCO, 2005)*

- Low HDL-C elevates postmenopausal BC risk  
*(Furberg AS, JNCI 96:1152, 2004)*
- Statins, HMGCoA reductase inhibitors, block mevalonate production which prenylate ras/rho
- G proteins
- VA database 1998-2004 – 40,421 female veterans, 11.8% on statins
- Age 58; 1.38% developed breast cancer
- HR 0.49 with statin use controlling for age, DM, smoking, ETOH ( $p < .0001$ )
- 3-4 years duration statin use breast cancer HR 0.33



# Cholesterol Levels

- Omega-3 Fatty Acids (EPA/DHA)
  - 2- 4 grams per day
  - ↓TG and Inflammation
- Statins / CoQ<sub>10</sub>
- Niacin ( ↑HDL, ↓ TC, ↓ LDL)
- Alcohol - ↑HDL
- Green tea
- Exercise

# Insulin Levels

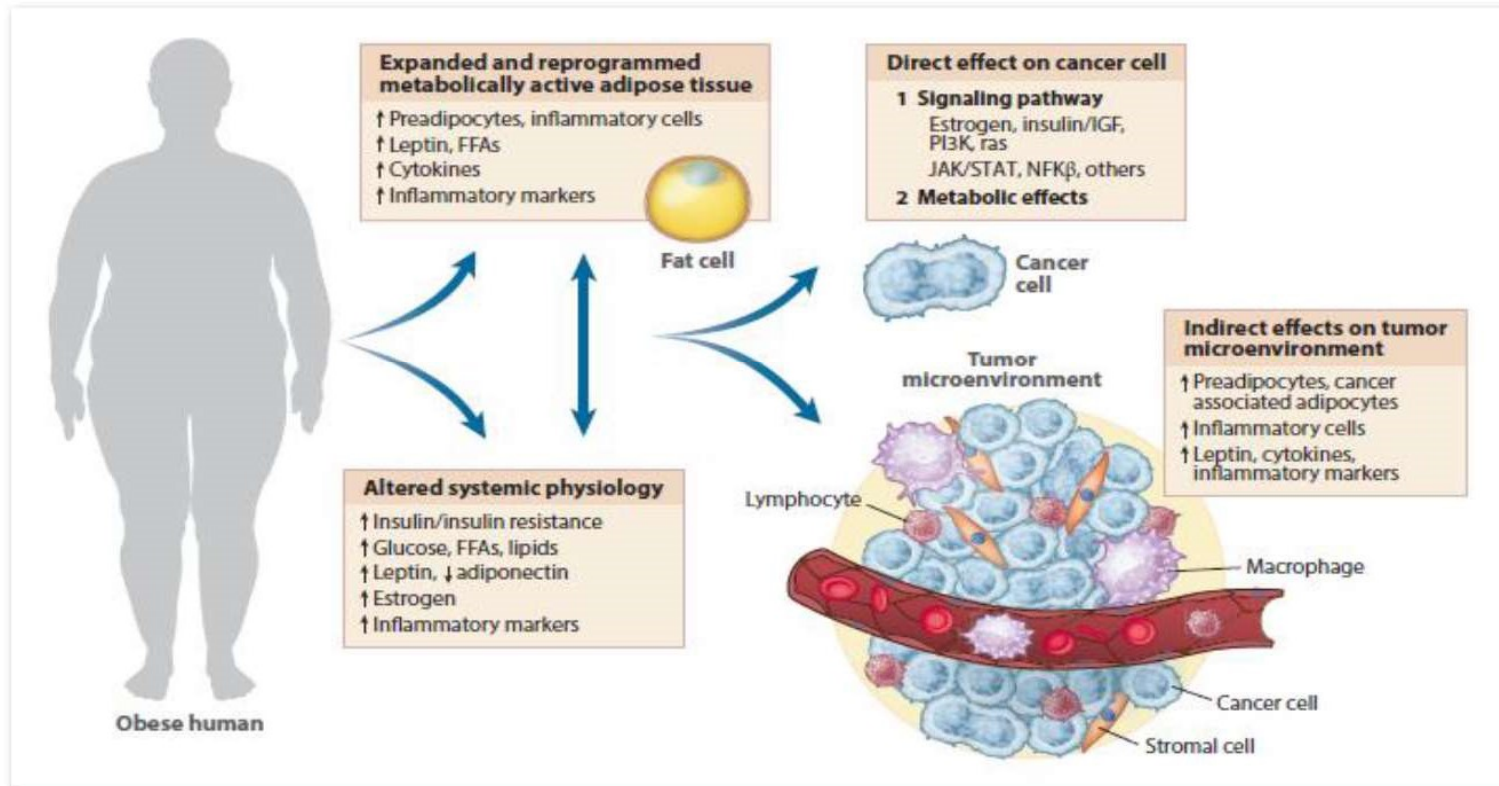
- Centripetal obesity leads to insulin resistance and higher levels of insulin
- BC expresses receptors for insulin
- Premenopausal women 2x↑ with high circulating levels



# ↑ Sensitivity to insulin (↓ insulin resistance)

- Physical activity-Salsa/Rueda-Casino/Tennis
- Ping- pong/ Water aerobics
- Calorie restriction
- Cinnamon ½ teaspoon / day
- Ginseng berries
- Grapefruit
- Dark Chocolate(100%)
- Leafy Green tea- Folic Acid replacement
- Coffee (no sugar, no milk)
- Fiber- 50 grams /day
- Metformin!!!

## Biologic pathways linking obesity and breast cancer not clear, but likely involve metabolic and inflammatory mediators



# Insulin and Breast Cancer Prognosis

- Cohort study of 512 women without known diabetes, T1-3 N0-1 disease

HR [95% ci]

Highest vs Lowest Insulin Quartile

Recurrence

2.0 [1.2-3.3]

Death

3.1 [1.7-5.7]

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- In multivariate model adjusting for BMI, tumor, and treatment factors, prognostic significance of insulin levels was maintained

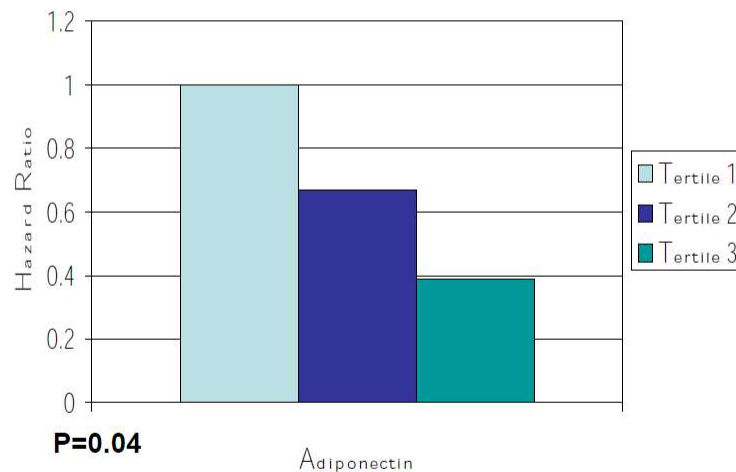
## Prognostic Effects of Insulin in Breast Cancer

		<u>n</u>	<u>Factor Measured</u>	<u>Recurrence</u>	<u>Death</u>
<b>Goodwin</b>	<b>2002</b>	512	Fasting Insulin	HR=2.0	HR=3.1
<b>Pasanisi</b>	<b>2006</b>	110	Fasting Insulin IRS	HR=2.42 HR=3.0	
<b>Pritchard</b>	<b>2011</b>	667	Non-fasting C-peptide	p < 0.05*	
<b>Irwin (HEAL)</b>	<b>2010</b>	689	Fasting C-peptide		HR=3 (significant)
<b>Duggan (HEAL)</b>	<b>2010</b>	527	HOMA		HR=4.3 (BC death) HR=1.6 (overall mortality)
<b>Emaus</b>	<b>2010</b>	1364	IRS Components: BMI, cholesterol, BP, exercise		HR 1.3-3.0 (significant)

Goodwin et al, JCO 2002; Pasinisi et al, Int J Cancer 2006; Pritchard et al, JCO 2011;  
Irwin et al, AACR 2007; Duggan C, et al. JCO 2011; Emaus et al. BCRT 2010.

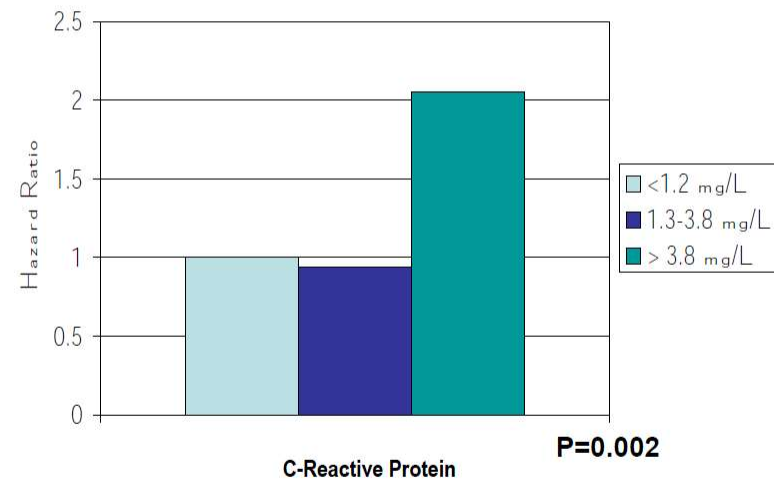
## Studies also show links between other metabolic and inflammatory mediators and cancer recurrence

**Adiponectin and breast cancer mortality**



Duggan C, et al. JCO 2011

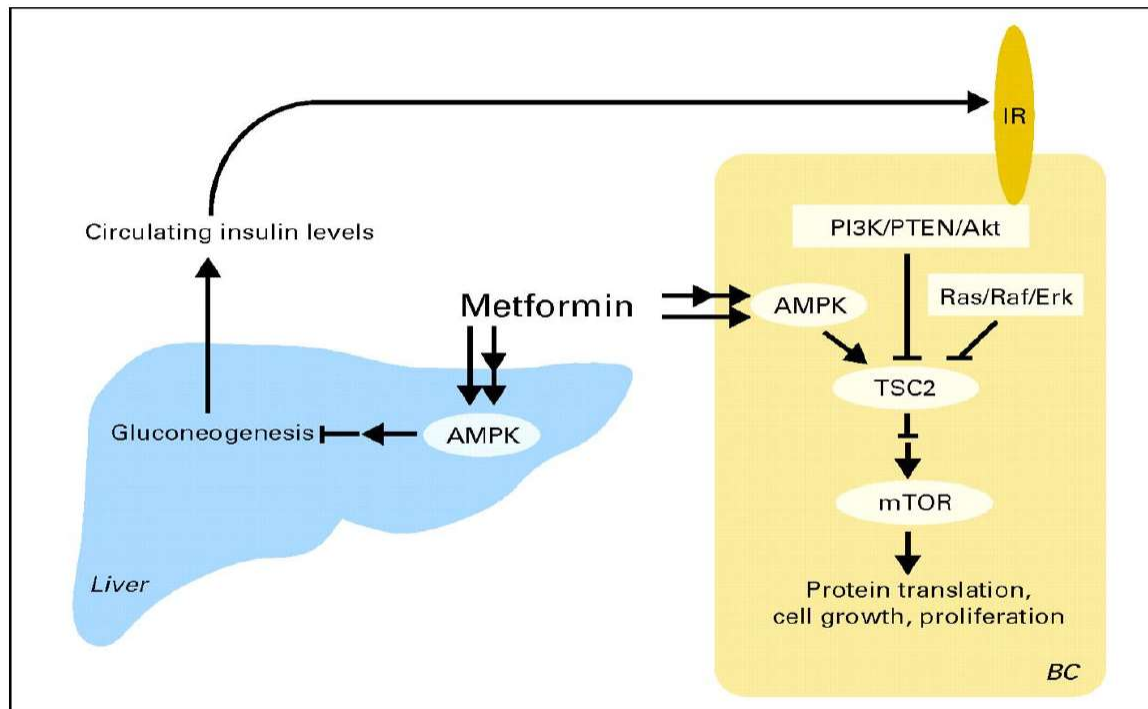
**C-reactive protein and breast cancer mortality**



Pierce, et al. JCO, 2009

**Can we improve prognosis in  
(obese? inactive?) breast cancer  
patients by targeting metabolic  
and/or inflammatory pathways?**

## Targeting metabolic pathways: Metformin

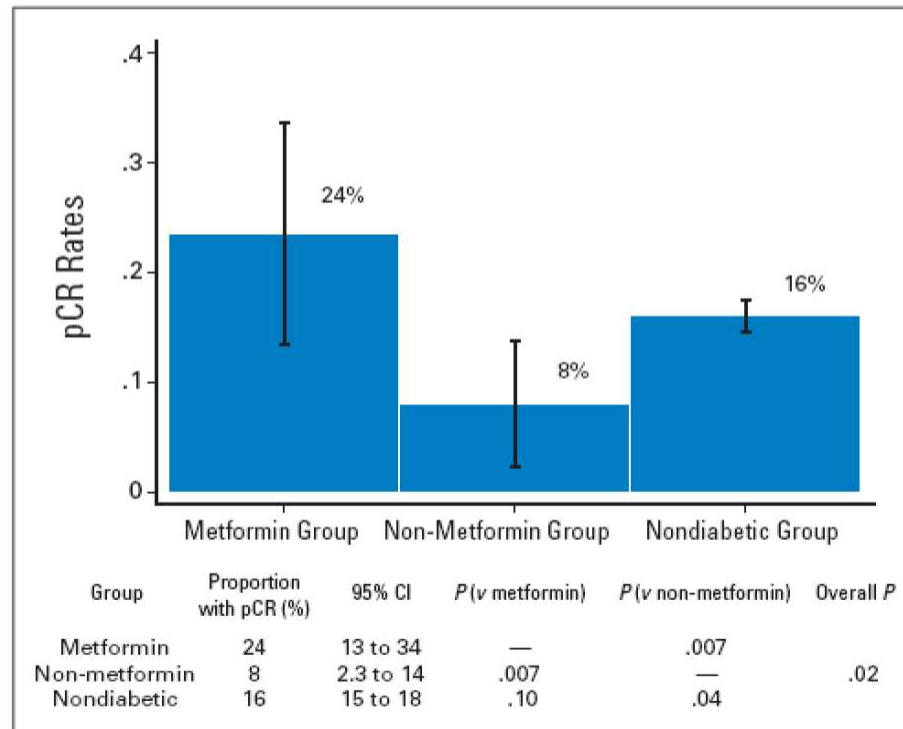


## **Metformin use associated with better response to neo-adjuvant chemotherapy**

- 2529 patients receiving neoadjuvant chemotherapy for early-stage breast cancer at MD Anderson:
  - 2374 women without diabetes
  - 68 diabetics taking metformin
  - 87 diabetics not taking metformin



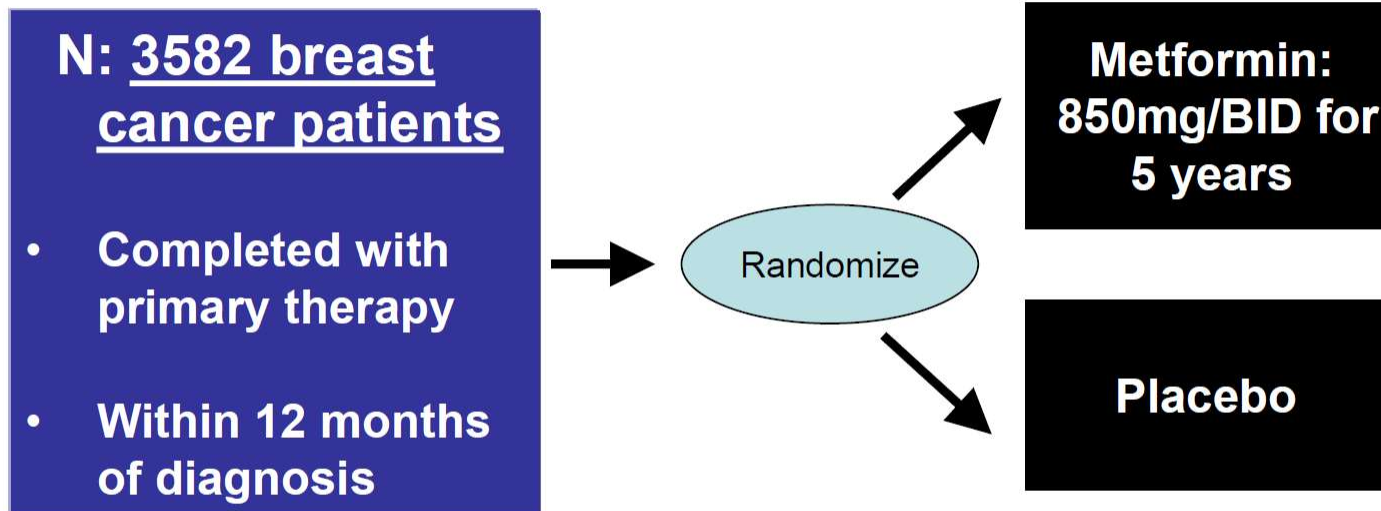
## Pathological complete response rates by diabetes status and metformin usage



Jiralerspong S. JCO 2009; 27:3297-3302

# NCIC MA-32

PI: Pamela Goodwin



**Primary Outcome: Invasive Disease Free Survival**

Secondary: *fasting insulin, weight, QOL, breast cancer free interval, OS, distant DFS, hospitalization for CV disease, diabetes, AE's*

NCT01101438

## Targeting inflammation

- Evaluation of anti-inflammatory drugs in breast cancer prevention and treatment in early stages
- Observational studies suggest that regular use of aspirin and NSAIDs linked to lower breast cancer risk and better outcomes

### Risk of breast cancer death by use of pain relieving drugs in NHS

	None	1 Day/Wk	2-5 Days/Wk	6-7 Days/Wk	P for trend
ASA	1.0	<b>1.07</b> (0.70-1.63)	<b>0.29</b> (0.16-0.52)	<b>0.36</b> (0.24-0.54)	<0.0001
NSAIDs	1.0	<b>1.03</b> (0.43-2.43)	<b>1.17</b> (0.61-2.24)	<b>0.52</b> (0.30-0.88)	0.04
Acetaminophen	1.0	<b>2.40</b> (1.22-4.71)	<b>1.28</b> (0.72-2.27)	<b>1.44</b> (0.81-2.57)	0.17

Holmes M et al. J Clin Oncol. 2010;28(9):1467-72.

# Aspirin for Breast Cancer (ABC) -A011502

- Eligibility
- Node positive
  - (any ER status) or
  - High risk node neg
  - (ER neg and > 2cm)
  - HER2 negative
  - Within 1 year of dx
  - Age < 70

R  
A  
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D  
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I  
Z  
E

Aspirin 300 mg daily x 5 yrs

Stratification factors:

- ER pos vs neg
- BMI (< vs  $\geq$  30)

Placebo daily x 5 yrs

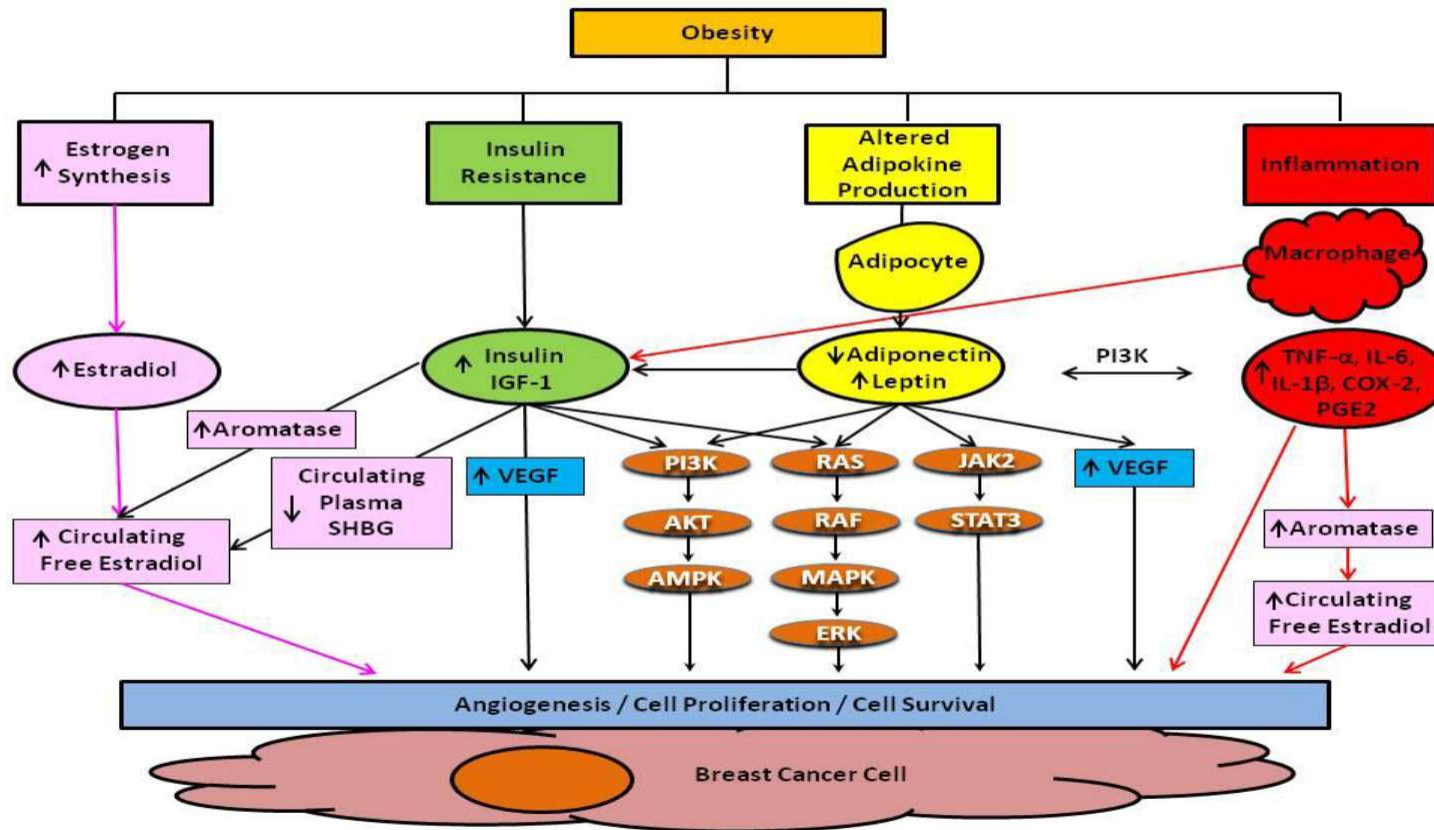
Primary endpoint: invasive disease free survival

**Accrual goal: 2963 women over 2 years**

80% power for HR of 0.75 (assume 5 year iDFS survival 77%)

NCT02927249

# Inflammation and metabolism are interconnected: Can we target both simultaneously?

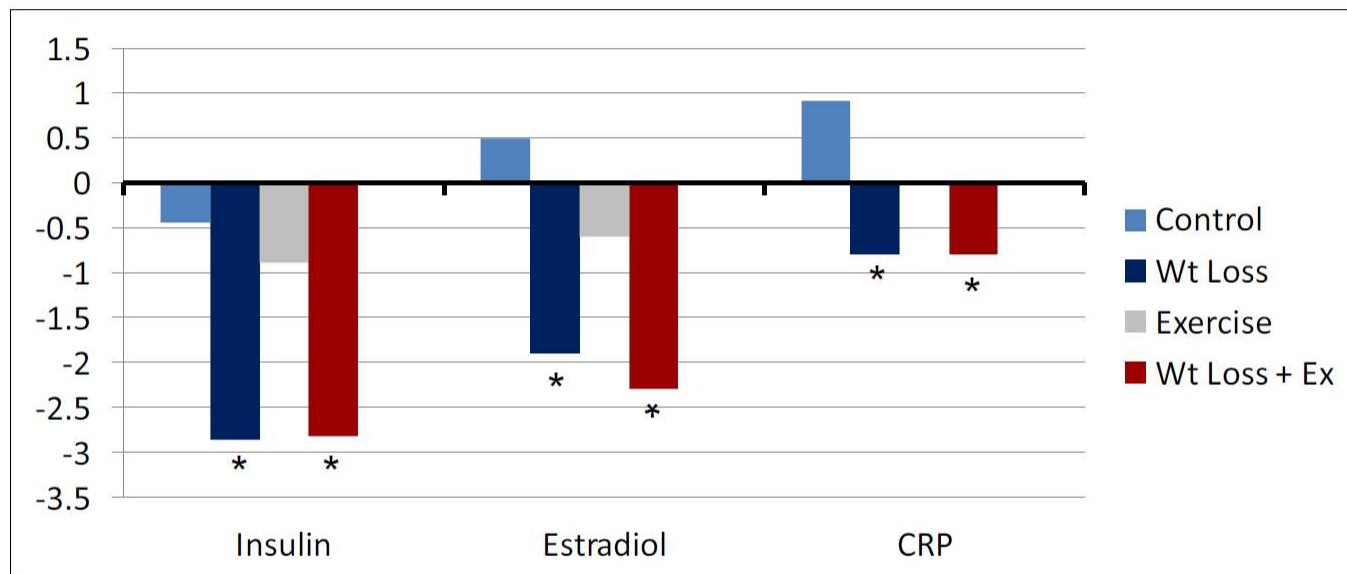


# Lifestyle interventions affect metabolic and inflammatory pathways

## *Nutrition and Exercise Study for Women (NEW Trial)*

- Designed to evaluate the impact of dietary weight loss and exercise upon biomarkers linked to breast cancer risk
- Enrolled 439 sedentary, overweight or obese, postmenopausal women
- Participants randomized to 1 of 4 groups:
  - Dietary weight loss
  - Exercise
  - Dietary weight loss + exercise
  - Control
- Endpoints:
  - Primary: change in sex steroids
  - Secondary: change in insulin, metabolic and inflammatory hormones

## Weight loss led to significant reductions in metabolic and inflammatory biomarkers



\* P<0.001

### Weight Change:

**Diet:** -10.8%  
**Diet + Exercise** -11.9%

**Exercise** -3.3%  
**Control** -0.6%

# Physical Activity

- 25,624 Norwegian Women followed over 13.7 years
  - 37% ↓ risk breast cancer among women who exercised regularly
  - Greatest benefit seen in women less than 45 y/o who exercise regularly over 3- 5 yrs

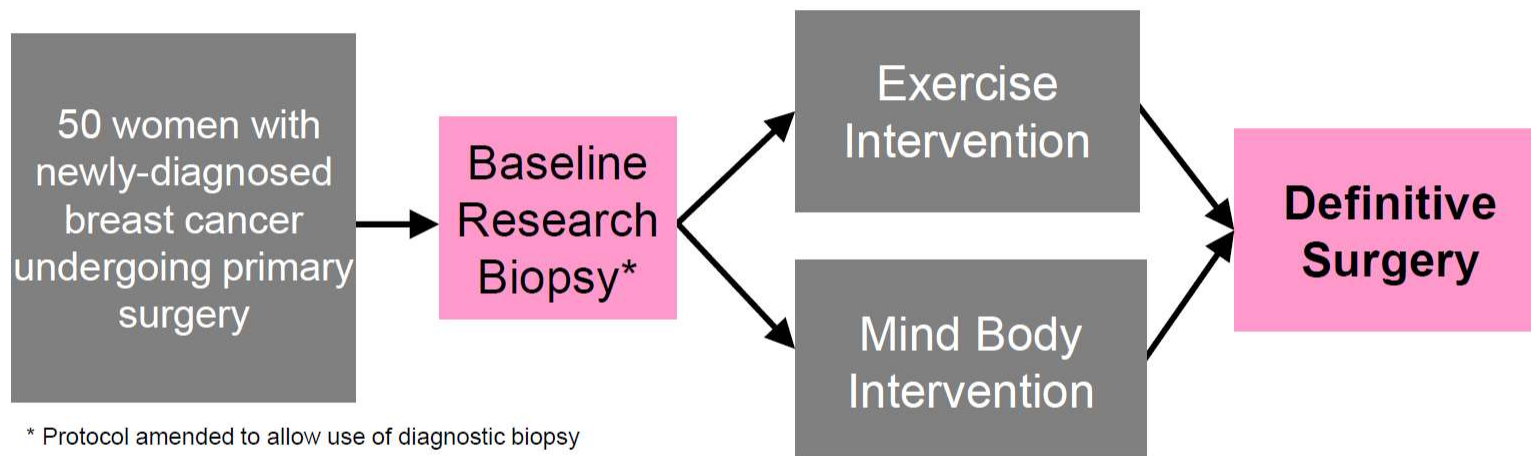
Thune, NEJM 1997



# Physical Activity

- 2,296 Women from Nurse's Health Study with Stages I, II, III BC
  - Death from BC was ↓ at every level of physical activity vs. sedentary
  - 5 hrs/ wk ↓ the risk of BC by 50%

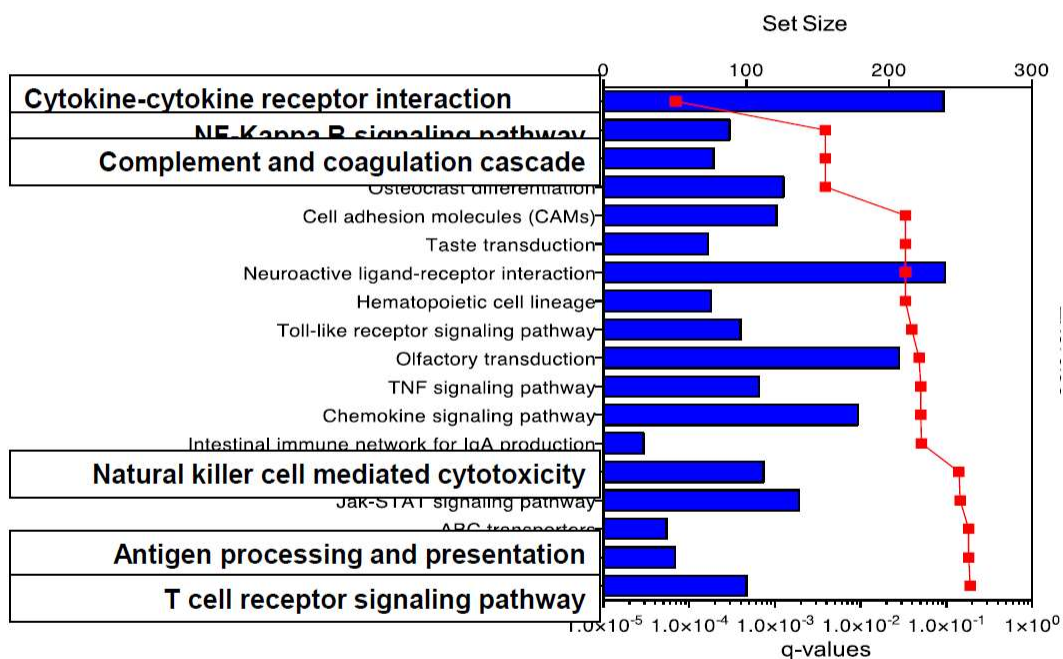
## Limited data also suggest that energy balance interventions could impact tissue biomarkers



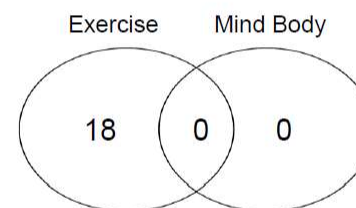
**PreHAB** | Pre-Operative Health and Body Study

NCT01516190

# Exercise upregulated immune markers in breast tumors



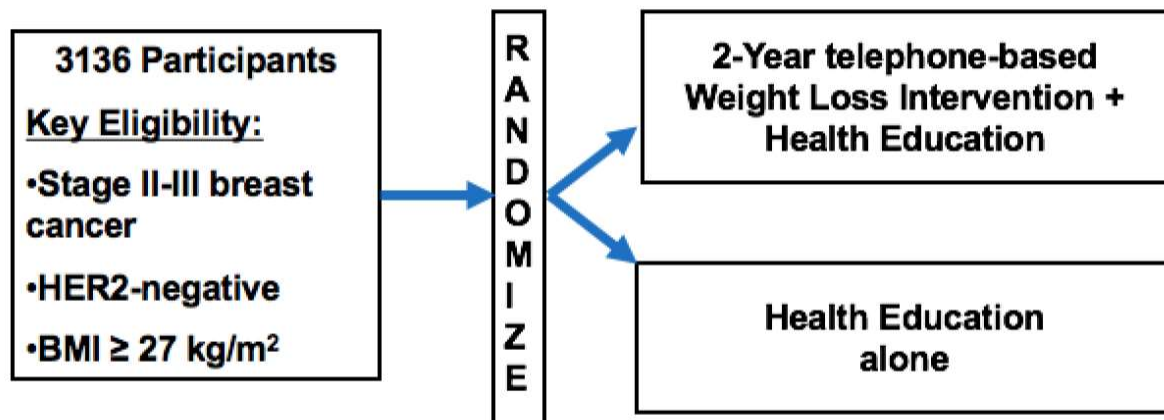
Significantly\* Up Regulated Pathways



\*adjusted p value < 0.1 (q-value)



## The Breast Cancer Weight Loss Trial



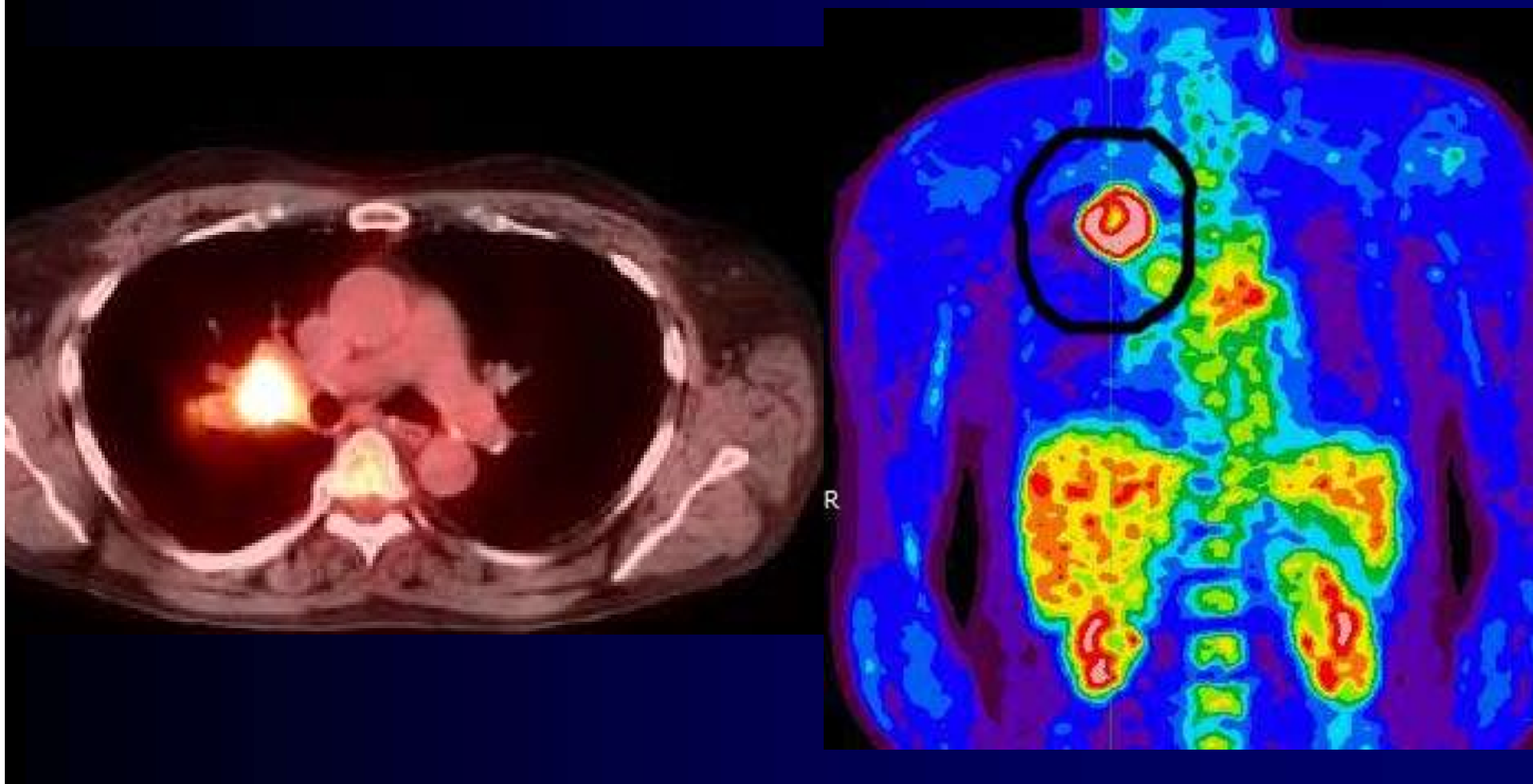
Primary Outcome: Invasive Disease-Free Survival

## Translational science in studies like BWEL could “connect the dots”

- Unique opportunity to collect biologic samples longitudinally and connect them to clinical outcomes
- Samples collected:
  - Fasting blood at baseline, 6 and 24 months
  - Malignant and benign breast tissue from primary surgery
- Goals:
  - Identify predictors of intervention benefit
    - Potentially define population to whom intervention should be prescribed
  - Develop intermediate biomarkers
    - Provide a way to determine whether an intervention is “working”
    - Streamline future research

**BWEL** 

# What is a PET Scan?








# Inflammation & Prognosis

- Adenocarcinoma of Pancreas after surgery
  - *CRP < 10= median survival 21.5 months; > 10= 8.4 months (p=0.015)<sup>1</sup>*
- Prostate cancer survival 10 yrs after intital dx & trx
  - *CRP predicted overall survival & prostate cancer specific survival (HR 1.80 [1.01-3.52] p < 0.05)<sup>2</sup>*
- Gastro-esophageal cancer survival after surgery
  - *CRP < 10= median survival 79 months; > 10= 19 months (HR:3.53 [1.88-36.64]; p<0.001);<sup>3</sup>*
- Breast cancer survival in HEAL study
  - *CRP increased overall survival HR 2.27 [1.27-4.08; p=.002] & trend towards decreased disease free survival (p=.07)<sup>4</sup>*

1. Jamieson NB et al. *Br J Cancer* 2005, 92:21-23.
2. McArdle PA et al. *Urol Int* 2010, Apr 15 Epub.
3. Crumley AB et al. *Br J Cancer* 2006, 94:1568-1571.
4. Pierce BL et al. *J Clin Oncol* 2009, 27:3437-3444.

# Decrease Inflammation

- Flossing
-  Fiber
-  Alcohol
-  Physical activity
-  Vitamin – D3
-  Abdominal Fat



## Scientific Corner

Fiber - 75 -100 grams/Day

↓ Heart Disease

↓ Stroke

↓ Obesity

↓ DM

For Every 20 grams of Fiber consumed

↓ Risk of B.C. by 15%



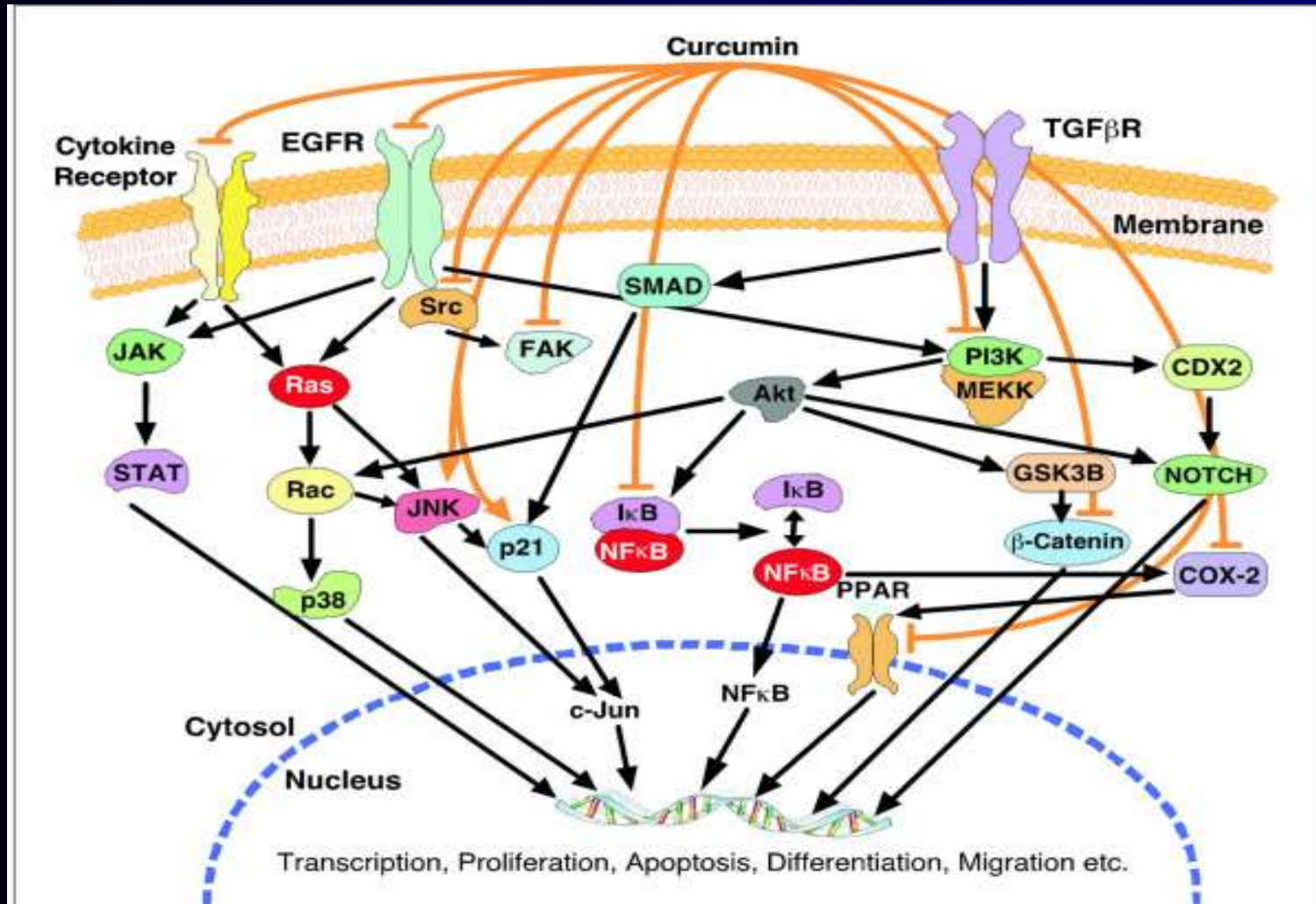
The Bitter the Better!!!

“Doctor there is nothing more  
bitter than chemotherapy”

# TURMERIC

- Turmeric – inhibits NFkB
- Most Powerful Anti-inflammatory agent known
- Crosses The Blood Brain Barrier
- Curcumin is the active ingredient
- 1 tablespoon/person/day
- Must take with black pepper/Ginger
- 1/2 teaspoon per day mixed with the turmeric

# Molecular Targets of Curcumin



# Boost Immune System

- Prayer/Meditation/Laughter/Dream
- Family & Friends
- Sleep 6-7 hrs/day
  - Melatonin
- Deep nasal breathing 10x AM & 10x PM
  - 5 secs in & 7 secs out
- Flossing 1-2X's/ Day
- Baby aspirin/ Vit D/ probiotic
- Exercise and Stretching

# **CDK 4/6 Inh.- $\uparrow$ *Immunity***

- **A)  $\uparrow$  CD8 Tcell proliferation in Tumor**  
**( $\uparrow$ Antigen presenting cell, IFN mechanism)**
- **B)  $\downarrow$  Immune suppression cells ( $\downarrow$ Treg)**

# Conclusions

- Obesity at diagnosis is a poor prognostic factor in early breast cancer
- Emerging evidence suggests that interrelated metabolic and inflammatory pathways may underlie connection between obesity and breast cancer
- Observational and early clinical data suggest that metformin may have potential as a therapeutic agent in breast cancer; MA-32 will evaluate its role in the adjuvant setting
- Early trials are evaluating the role of anti-inflammatory agents in breast cancer
- Energy balance interventions can also impact metabolic and inflammatory pathways



# Books and Websites

- “Anti-Cancer, A New way of Life”  
by David Servan-Schreiber MD, Ph.D
- “A Prescription for Wellness”  
by Carolyn I. Sartor, MD.
- “How Not to Die” by Michael Greger, MD
- [nutritionfacts.org](http://nutritionfacts.org) by Michael Greger, MD
- “The Blue Zones” by Dan Beuttner

Thank You  
Patients

Professor J.A. van Dongen

Dr. Jennifer A. Ligibel

Dr. Hyman Muss

Dr. Stephen Richman

Amanda Martin

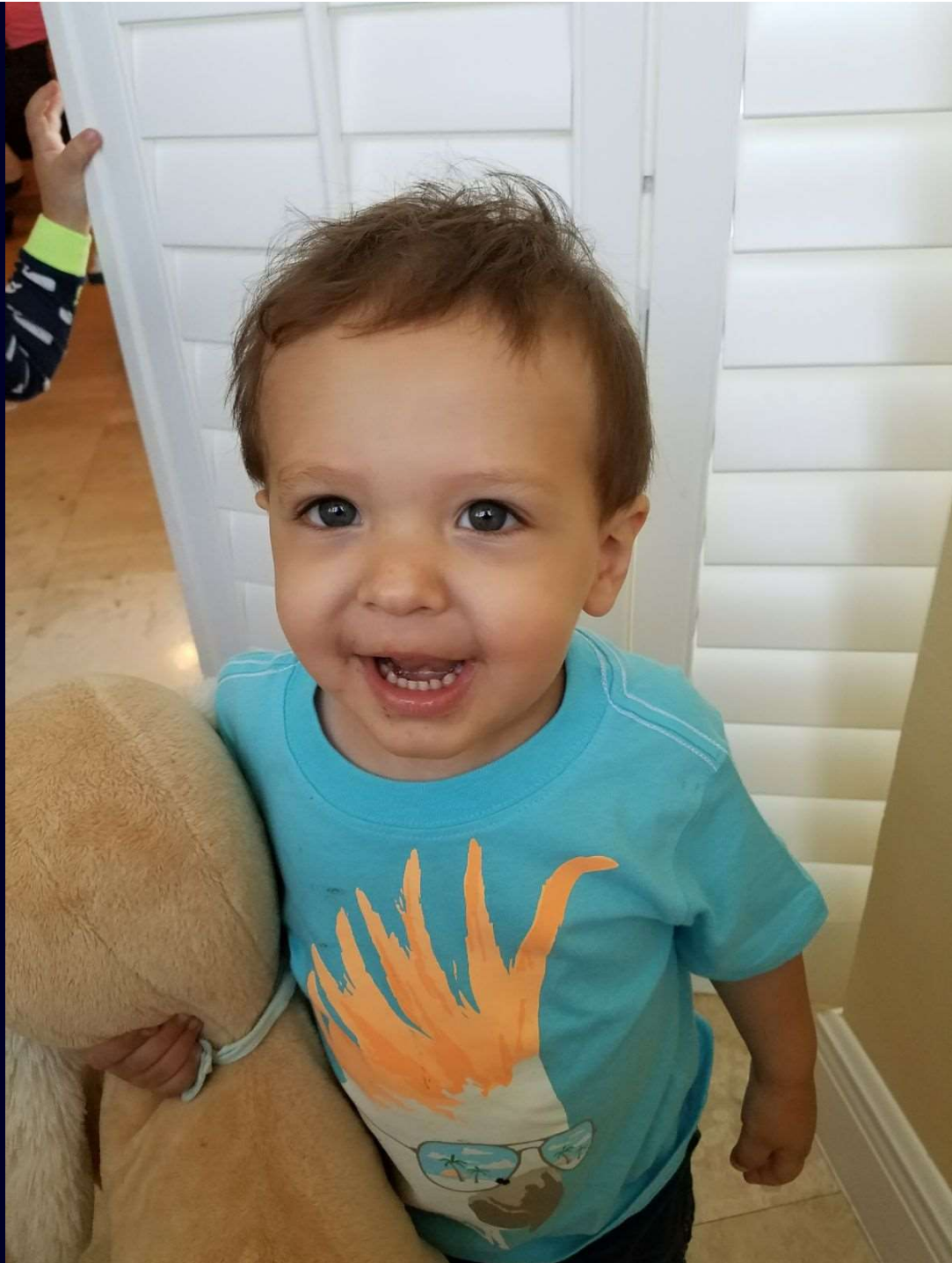
Firenze


















# Vitamin D

- U.S. 2nd lowest in the world
- 25 OH levels(hydroxy) – measures steady state
- Normal levels 30-100, shoot for 75(Carlson)
- Replace with Vitamin D, D3 once a day with food
- Toxic to breast and prostate cancer cells
- Breast and prostate cancer express Vitamin D receptors
- Salmon is the richest fish in Vitamin D and lowest in mercury
- 20 mins in the sun gives 15,000 units of Vitamin D
- Calcium Citrate D is very low in Vitamin D
  - Take Calcium and Magnesium  
with NO other meds (They are Resins)

# Antioxidants

- Are substances that help neutralize free radicals
  - Free radicals damage cells, DNA and cause cell death
  - Free radicals contribute to aging, cancer and heart disease
  - Bind Free radicals so they are excreted in the urine

# Beverages

- **Coffee (Black)** 2-4 cups per day
  -  Bad Cholesterol (LDL)
  -  Protection of the Liver
  - Helps clear Hepatitis C Virus
  - Rich in Antioxidants
- **Lemon** - Mix with warm water
  - 2 glasses/day – (1) Before Lunch/ (1) Before Dinner
- **Green Tea** 2 cups per day (may be decaf) -must be supplemented with folic acid 1mg/day in women of childbearing age
  - Avoid from Japan (radiation risk)
- **Ginger Root Tea** 1-2 cups per day
  - Helps  prostate size
  - Plain, nothing added

# Leafy Green Tea (Camellia Sinesis Plant)

- Highest concentration of polyphenol- potent antioxidant
  - 1/3 caffeine of black tea and more polyphenol
- EGCG 1/6 catechins
- 2-3 cups per day (no milk with tea)
  - ↓ Stroke/ Heart Disease/BC/Prostate Cancer/Colon Cancer/Cholesterol ( ↑ HDL)
- Folic acid supplementation is needed !!!
- Do not take while getting chemotherapy/pregnant/breast feeding/MAOI (hypertensive crisis) / Coumadin/ or if have bleeding disease




STORY OF A DRUNKEN GIRLHOOD

KOREN ZAILCKAS

smashed



# Alcohol

- Smashed
- 2 drinks per day  risk 1.4-1.7x's
- Dietary folate may help counteract the risk
- Recommend:
  - 2oz Red wine/day (Resveratrol)
  - Folic Acid 800 mcg/day, which also  Homocysteine levels.
  -  HDL

# General Health tips

- Flossing

- Gums, areas in body of highest inflammation in the body
- Floss 2x's per day
- followed by waterpik
- Dental cleaning every 6 months
- Healthy gums ↓ heart attacks and strokes

- No Smoking/No Chewing Tobacco

- 20 million Americans have died since 1964 because of smoking
- ↑ Lung cancer
- ↑ head and neck cancer
- ↑ bladder cancer
- ↑ heart disease

# General Health Tips (Cont.)

## Sleep Hygiene

- Recommended 7 hours/night
- If sleep aid is needed - Melatonin
  - will **only** work if lights are out
  - boosts immunity
  - does not hurt memory
- If not resting - see pulmonologist to test for sleep apnea.

## Filter Drinking Water

- Filter it twice, with an external filtering device,  
such as PUR or Zero Water, etc.
- Heavy metals, such as Arsenic



# Your Allies - Spices

**Turmeric/Curcumin**

**inhibits Nfkb**

1 TBS/person/day

**Black pepper**  
**Ginger**

↑ absorption of Turmeric

**Saffron**

Best to prevent Alzheimer's

**Garlic**

**Olive Oil**

1 teaspoon (5cc) = 100 cal

**Basil**

**Oregano**

Rich in anti-oxidants

**Parsley**

**Cardamom**

Boosts activity of NK cells

**Cumin**

Rich in Salicylic acid

# Exercise

↓ Inflammation (Decreases CRP levels)

↑ Immunity

↑ IGA Levels- cuts colds in half

↓ Circulating Insulin Levels

↓ Glucose Levels

↓ Lipids

↓ Risk of breast cancer



↓ Risk of prostate cancer

↓ Heart Attacks and strokes

## **Walking briskly 60 mins a day [6 days a week]**

- At a pace that you cannot use or speak on your cell phone
- ↓ Hot flashes of menopause
- Strengthens bones(velcro weights on ankles and wrists)

# Your Weapons

- Whole Food, Plant Based, Gluten Free, Dairy Free, Salt Free Diet:
- Fruits 5 servings per day - sweetest in the AM
- Veggies 5 servings per day
- Gluten Free - UDi's Bread (in Freezer section)
- Pasta - Spinach/Quinoa/Brown Rice
- Fiber 50-75 grams per day
  -  colon cancer,  Breast Cancer
  - Rice/Black Brown
  - Quinoa
  - Metamucil sugar free (2 tablespoons + 2 glasses of water)  
or Psyllium Husk Powder (2 tablespoons + 2 glasses of water)
- Greens - Rich in antioxidants
  - Broccoli lightly steamed (Better Crunchy!)
  - Asparagus
  - Avocados

# Your weapons

Red onions (Quercetin)

↓ LdL Cholesterol  
↑ Immunity

Kale

Red Grapes (Quercetin)

Cabbage

Blueberries

Spinach

Oranges

Leeks

Strawberries

Fight Barrett's Esophagus,  
the precursor to Esophageal Cancer

Watercress

Pears

Arugula

Almond Milk

Asparagus

Berries

Rich in antioxidants  
↑ Immunity by ↑ NK cells  
↑ Anti-inflammation

Collard Greens

Broccoli - ↑ Immunity

# Your Weapons

## Mushrooms (cooked are best)

- White mushrooms fight Breast cancer
- Anti-inflammation/ ↓ Allergies
- ↑ Immunity
- ↑ IGA by 50%

## Beans (Every day)

- Red/Black/Fava
- Lentils
- Black Eyed Peas
- Split Peas
- Chick peas - Hummus

## Tomato Sauce/Pasta

- Lycopene – anti-inflammatory
- Especially for prostate cancer
- 1 tablespoon in AM and PM

## Legumes

- (beans, split peas chick peas, and lentils)

## Organic Ground Flaxseed

- 1 tablespoon per day
- Add to smoothie or gluten free cereal
- Bob's Red Mill Organic  
100% whole ground Golden Flaxseed Meal

# Snacks

- 10:00 AM 10 almonds & 1 pear
- 4:00 PM 10 almonds & 1 red apple
- Broccoli Chips - with Garlic
- Kale Chips - with Garlic
- Mary's Gone crackers
  - Gluten free super seed crackers
- Glutino - Gluten free crackers
- NO SUGAR
- Healthy sugar substitutes:
  - Agave (1 drop) or Stevia

# Breakfast

- Smoothies

- Blender Brands - Nutribullet/Ninja Blender/Vitamix...
- Add protein “LEAN” vanilla veggie protein
- Almond Milk – plain, unsweetened (Almond Breeze 30 calories or Slik)
- Fruits/Veggies
- Organic ground flaxseed – 1 teaspoon
- No juicing (fiber must be included) (Skin of fruit/vegetable must remain inside the smoothie)

# BEST BREAKFAST EVER

- Oatmeal (Steel cut), WATER/ALMOND MILK, CINNAMON (antioxidant), BERRIES, CHOCOLATE (100%), QI'A
- ORGANIC GROUND FLAXSEED (1 Teaspoon)
- Gluten Free Toast
- Hummus



# Lowers Blood Pressure

Legumes (beans, split peas, chick peas, and lentils)

Watermelon

Hibiscus Tea (5 teabags in 2-3 cups/day)

Nitrate rich diet (↑ Nitric Oxide level)

-causes arterial walls to relax

[arugula (#1), cilantro, basil, beets (remolacha)]

0 Salt! NOT in the cooking pan and NOT on the plate!

## Did you know?

Yanomamo Indians deep in the Amazon have a whole plant, 0 salt diet and never develop high blood pressure even in the very

100% Dark Chocolate

(Lindt 99% or Scharfenberger 100%)

pure cocoa causes arterial walls to relax

## Did you know?

Kuna Indians, off the coast of Panama have a diet that is rich in pure cocoa and they do not develop high blood pressure.

Garlic

Organic ground flaxseed (2 teaspoons/day)

## Scientific Corner

Fiber - 75 -100 grams/Day

↓ Heart Disease

↓ Stroke

↓ Obesity

↓ DM

For Every 20 grams of Fiber consumed

↓ Risk of B.C. by 15%

# Your Enemies

## Animal Protein —

Fish and shrimps (wild caught) once/week  
(salmon, Sea Bass, Halibut, etc.)

Beef (Grassfed is best! once a month, and make it count  
Ex: Argentinian Parrillada or juicy burger w/ egg on top)

Dairy/Yogurt  
Cheese ( ↑ salt)

Chicken (On Chicken Day, every other year  
Ex. Peruvian Aji de Gallina)  
( ↑ Salt, ↑ Cancer Risk,  
Salmonella and campylobacter)

Eggs/Eggwhites

Turkey (On Thanksgiving)  
Pork (On Christmas/"Nochebuena")  
Lamb (On Easter/Passover)  
Processed Meat (the worst)

## Scientific Corner

Animal Protein stimulates IGF1 (growth factor for cancer)

Plant based diets

IGF1 Binding Protein - which binds to IGF 1

Consumption of Beef

↑ Risk of dying from cancer and heart disease

Red Meat - ↑ heme Iron - ↑ free radicals  
(pro-oxidant)

## Your Enemies Avoid: “As much as possible”

- Condiments and others
  - Sugar
  - Salt or Sea Salt
  - Ketchup (mostly sugar)
  - Mayonnaise
- No Soft drinks (regular or diet)
- Soda causes non-alcoholic fatty liver disease and osteoporosis. Diet ones contain aspartame
- Avoid white rice and white pasta
- Avoid processed foods “anything in a plastic”



# OncoQOL



# PATIENT EXPRESS AUTHORIZED PRODUCTS



Name: \_\_\_\_\_

**Qty Item Code Description**

QOL110 CogniQOL  
 QOL106 DaxibeQOL  
 QOL113 ErythroQOL  
 QOL108 FemQOL  
 QOL104 FolaQOL  
 QOL102 InflaQOL  
 QOL111 MucosaQOL  
 QOL101 MyoQOL  
 QOL105 NeuroQOL  
 QOL109 NutraQOL  
 QOL112 ProbioQOL  
 QOL103 RadoQOL  
 QOL114 VitaQOL

D128 D-1,000  
 D138 D-5,000

TURMERIC  
 2 pills AM  
 2 pills PM  
 4/Day

(CoQ10 → 1 AM  
 1 PM)

Probiotic → 1/day

- 1/day

**Qty Item Code Description**

QOL508 Aloe & Lemongrass Skin-Care Bar  
 QOL509 Balsam & Sulfur Skin-Care Bar  
 QOL502 Conditioner  
 QOL504 Cooling Aloe Spray  
 QOL507 Lip Balm  
 QOL503 Lotion  
 QOL501 Shampoo  
 QOL505 Shower Gel  
 QOL506 Soothing Relief Therapy Cream  
 M234 Magnesium Citrate  
 SA540 Glutathione-SR  
 SB300 PolyResveratrol-SR  
 SP616 Omega-3 w/ CoQ10

1 AM  
 1 PM  
 2 Per Day  
 1 AM  
 1 PM  
 2/DAY

DOCTOR CODE FOR DR. SILVA QOLON1000004

Patient Express Website: <http://www.oncogol.com>  
 OncoQOL Customer Service: (855) 662-6765

SIGNATURE

SILVA

Customer Service Representatives:  
 Deanna, Carrie, Dani, Heather

# Obey Your Body Skin Care

- Dead Sea mineral and Herbal complex





# “ Sola Tu No Estas”

- If you build it they will come!
- My “Field of Dreams”
- “ Patients words” → Would become a song.
- A song that would help many in the FIGHT
- The first three to respond were men
- Fernanda
- Misi Murillo
- 7 singers all Colombian! All famous in their own right.
- Everything donated

Silva's Army

# “Sola Tú No Estás”



**Join us!**  
**Únete a nosotras!**

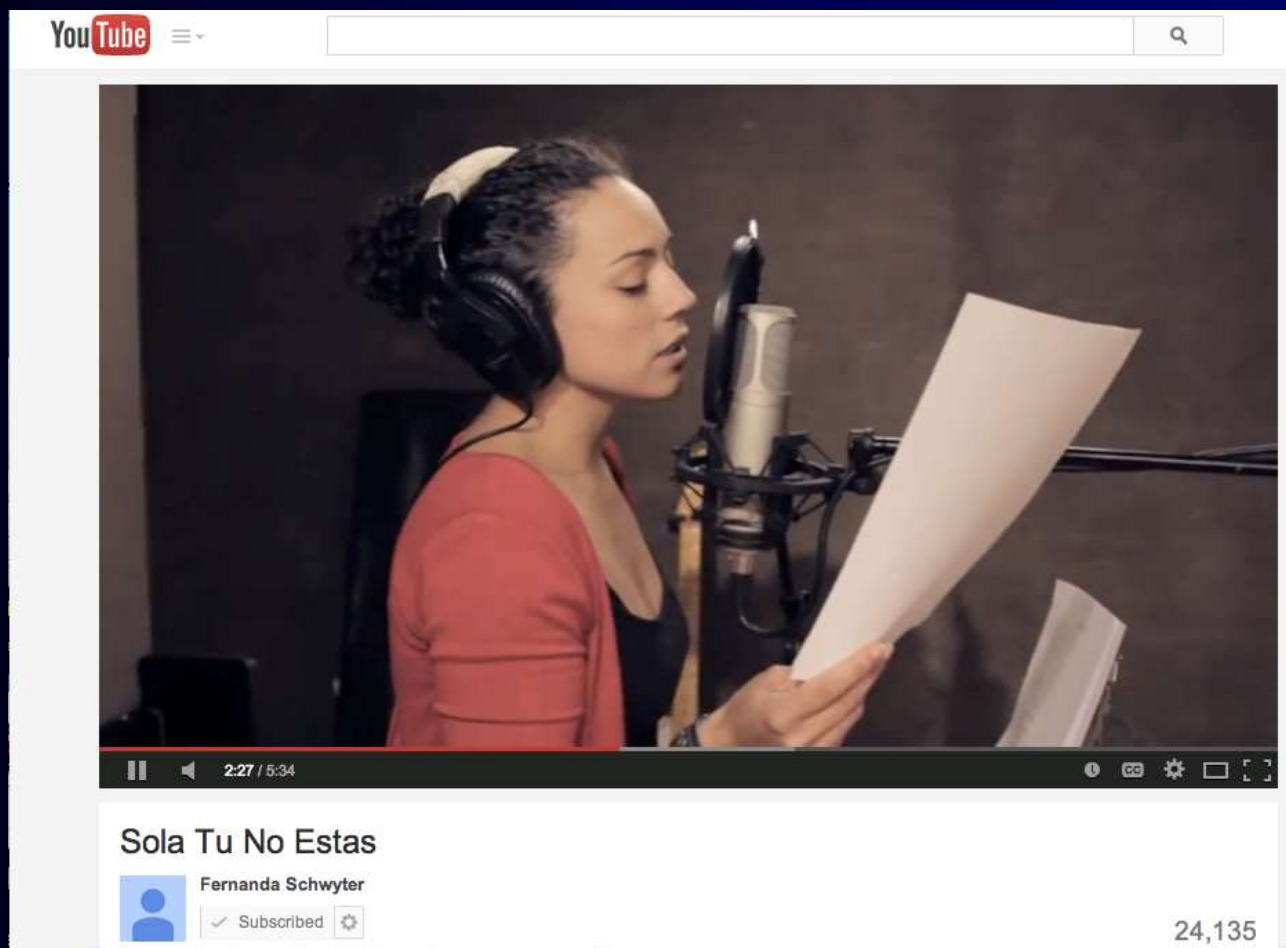






# “Sola Tu No Estas”

[https://www.youtube.com/watch?v=Mh1gu\\_bEFvY](https://www.youtube.com/watch?v=Mh1gu_bEFvY)

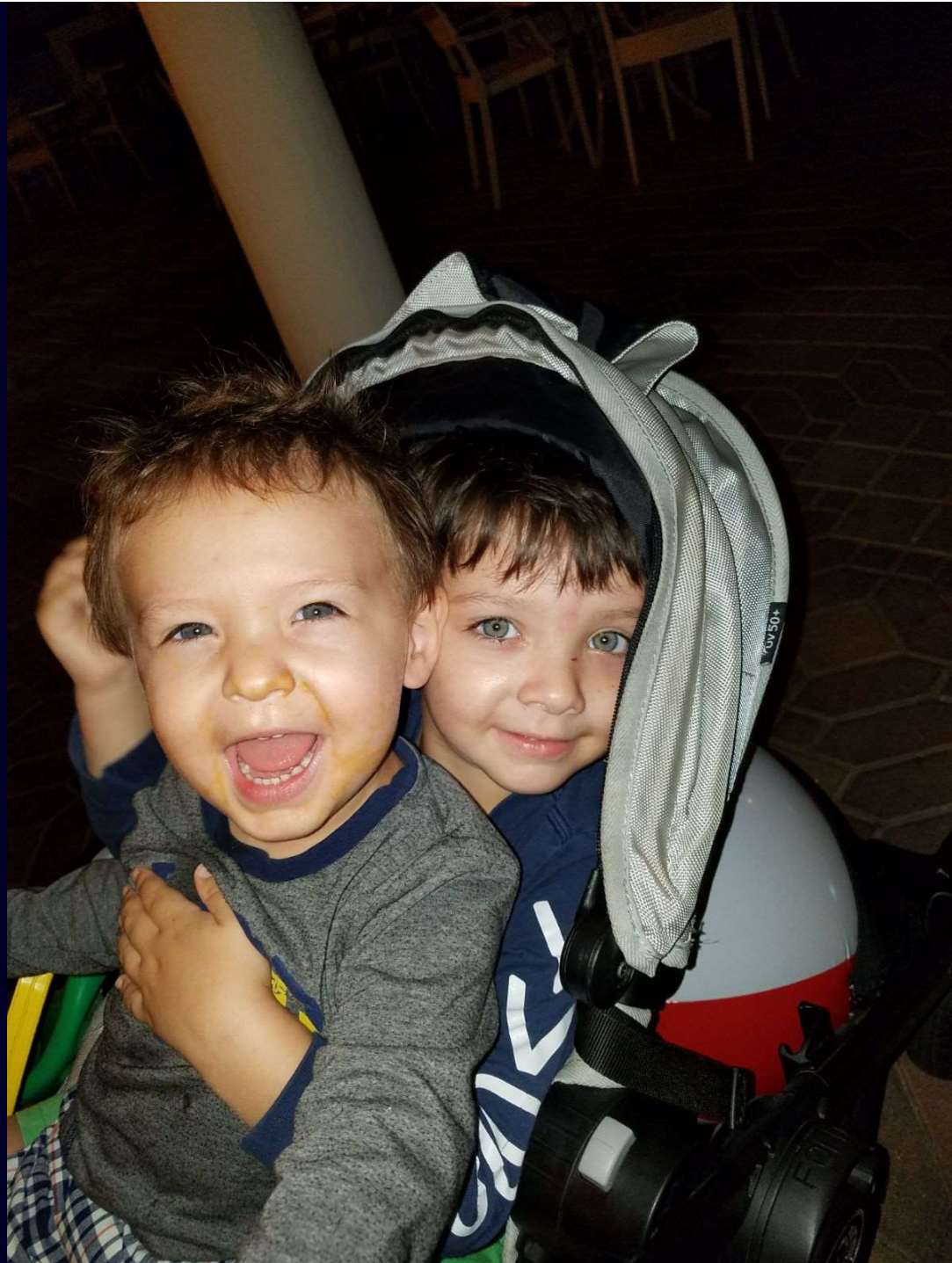


The image shows a YouTube video player interface. At the top, the YouTube logo is on the left, and a search bar is on the right. The main video area shows a woman with dark hair tied back, wearing large black headphones and a red top. She is looking down at a sheet of paper she is holding, with a professional microphone in front of her. The video player controls at the bottom show a play button, a volume icon, a progress bar at 2:27 / 5:34, and icons for full screen, settings, and share. Below the video, the title "Sola Tu No Estas" is displayed, followed by the channel name "Fernanda Schwyter" and a "Subscribed" button with a checkmark and a settings gear icon. The view count "24,135" is shown in the bottom right corner.

- **It's Personal!!!**











# Index

- B.C. - Breast Cancer
- NK Cells - Natural Killer Cells
- Endothelium - Lining of the walls of the arteries
- Nfkb –
- IL-6 - Interleukin-6

# Supplements and vitamins

Thorne Research Products which are made with pure spring water from Idaho and have the least contaminants.

- If you mention "Silva's Army," you will get a 25% discount.  
1-800-2281966

- Turmeric (Curcumin) twice a day
  - ↓ Inflammation
- Magnesium 400mg twice a day
  - ↓ Inflammation
- Vitamin D3, 5000 Units per day
  - ↑ Immunity
  - Level of 50-80
- Probiotic Floramend, Culturelle, Align
  - ↑ Immunity (70% of our immune system is in our gut.)
- CoQ10 100 mg twice a day
  - ↓ Inflammation
- Quercetin 100 mg twice a day
  - ↓ Inflammation



L A R K I N

COMMUNITY

H O S P I T A L

A T E A C H I N G H O S P I T A L















# Conclusion

- Insulin resistance and chronic low-grade inflammation are associated with obesity and inactivity and both have been associated with increased breast cancer risk, as well as recurrence and death among women diagnosed with breast cancer.
- Chronic Inflammation can contribute to insulin resistance in the metabolic syndrome through increased levels of pro-inflammatory cytokines such as TNF- $\alpha$  , which can impair glucose uptake and metabolism by altering insulin signal transduction and IL-6 which can increase glucose production by the liver.
- These inflammatory cytokines, growth factors and activated stromal proteins can promote breast cancer pathogenesis.

## *Cont...*

- Weight loss and exercise interventions have been shown to impact insulin and other serum biomarkers linked to breast cancer risk and prognosis in healthy women and in breast cancer survivors.
- Animal models also suggest that lifestyle interventions can reduce malignant transformation of breast cells and impede tumor growth, potentially through immune mechanisms.
- Women with newly diagnosed breast cancer with exercise interventions may upregulate immune and inflammatory pathways within human breast tumors.