

Presents



# Breakthroughs in Breast Cancer Treatments

Zoom Webinar Thursday, October 22, 2020

# **Breakthroughs in Breast Cancer Treatments**

Hosted by

Victoria Pilotti, President

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Center for the Women of New York

Guest Speakers

Seeta Trivedi, M.D.

Internal Medicine, Medical Oncology

**Argie Moutafis-Agelarakis** 

**Breast Cancer Survivor** 





# **About CWNY**



Since our founding in October of 1987, the Center has shown that women working together can be an effective force. We are a voluntary, non-profit organization, dependent on dues from our members and on the volunteer efforts of business, professional and community women and men in New York City.



We advocate strongly for women's full equality by partnering with likeminded organizations and elected officials. We participate in women's marches and organize symposia on topics like domestic violence and human trafficking. We help women in crisis through referrals to social services.



At the Center for the Women of New York, we believe education is a cornerstone of women's economic independence. To that end, we offer classes in conversational ESL, computer skills, and other topics, and an annual Career Conference to enable women to gain employment and rise in the workplace.



Whether we're marching for worthy causes, celebrating women's accomplishments in leadership, the arts, or sports, camaraderie is a hallmark of CWNY. We've come a long way since the Second Wave of the Women's Movement in the latter half of the 20th century, and while there are many struggles ahead, we celebrate how far we've come



# **Current Services**

**Caregivers Phone Support Group Conversational English as Second Language Class** Legal Support Team **Referral Services** Webinars on Women's Issues Women in Crisis Individual Counseling Women in Crisis Support Group



**Upcoming Events Book Club Career Workshops Computer Classes Financial Literacy Series** Women Artist Exhibit Walking Group

# Upcoming Webinar:



November 10, 2020 6:30 – 7:30 pm

# The Power of Financial Independence COVID and Beyond



free registration: https://us02web.zoom.us/webinar/register/WN\_bK4\_1nYmQQi7xZhOxR3\_2w Help CWNY continue to provide educational programs



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#### **Questions & Answers**

Your questions will be addressed after the presentations.

Use the Chat Box at the bottom of your Zoom screen to ask a questions.

If you dialed in, email your questions to events@cwny.org





#### Seeta Trivedi, MD



#### Board-Certified: Internal Medicine, Medical Oncology

"My passion is treating cancer patients and the challenges they face, and instilling hope for a better and longer life. I've made it my goal to help you lead a meaningful life while fighting a dreadful disease. I enjoy seeing those that I have helped, who are able to live longer due to the success of the treatments that we now have to offer. Compassion and knowledge are my best qualities. They help me to reassure you that I will help you fight your cancer, at the same time being sensitive to the challenges that you will face."

Fellowship: Medical Oncology, Nassau University Medical Center, East Meadow, NY

**Residency:** Internal Medicine, Weill Cornell Medical College of Cornell University / Methodist Hospital, Brooklyn, NY

MD: Gujarat University, India

**Member:** American Society of Clinical Oncologists, Breast Cancer Committee Steeplechase Cancer Center at Robert Wood Johnson Somerset, Genitourinary Cancer Committee Steeplechase Cancer Center at Robert Wood Johnson Somerset

Languages: English, Hindi, Gujarati

#### BREAKTHROUGHS IN BREAST CANCER TREATMENTS Dr. Trivedi

What is breast cancer? What are the types? What are the stages? What are the treatment options?



SURVIVOR STORY Argie Moutafis-Agelarakis Will share her story from diagnosis to post-surgery

## BREAK THROUGHS IN BREAST CANCER TREATMENT





#### WELCOME!

#### SEETA TRIVEDI, MD MEDICAL ONCOLOGIST



#### THE IMPACT OF BREAST CANCER



About 1 in 8 women in the U.S. will be diagnosed with invasive breast cancer over the course of her lifetime For women in the US, **breast cancer is the most commonly diagnosed cancer** (besides skin cancer) and the **second leading cause of cancer death** after lung cancer



In 2018, **more than 40,000 women in the U.S.** are expected to die from breast cancer

Source: American Cancer Society

#### Proud Support





#PurposeInPink

There are currently more than 3.5 million

breast cancer survivors in the U.S.,

including women who are being

treated or who have completed treatment for breast cancer

The American Cancer Society does not endorse or promote any Herbalife Nutrition products or services. Meet distary supplements, including Herbalife Nutrition products, have not been shown to be beneficial for the prevention or treatment of cancer. People undergoing cancer treatment should check with their health care provider before using any distary supplement.

#### KEY FACTS AND FIGURES

Most common cancer in women in the US after skin cancer and the most common cancer in women worldwide In the U.S. in 2020, there will be an estimated 276,480 new cases of invasive breast cancer diagnosed in women and 2,620 cases diagnoses in men. In the U.S. in 2020, it is estimated that 42,690 breast cancer deaths (42,170 women, 520 men) will occur. Increasing incidence in younger

women, though the overall

# What is Breast Cancer?

- Breast cancer begins when healthy cells in the breast change and grow out of control, forming a mass or sheet of cells called a tumor.
- Cancer can begin either in the milk forming areas called the lobules or Lobular Cancer; or in the lining of the tubes or ducts that carry the milk towards the nipple, or Ductal Cancer.
- Breast cancer spreads when the cancer grows into adjacent organs or other parts of the body or when breast cancer cells move to other parts of the body through the blood vessels and/or lymph vessels. This is called a metastasis.
- Although breast cancer most commonly spreads to nearby lymph nodes, it can also spread further through the body to areas such as the bones, lungs, liver, and brain. This is called metastatic or stage IV breast cancer

# Types of Breast Cancer

- Ductal carcinoma, invasive or in situ
- Lobular carcinoma, invasive or in situ
- Medullary
- Mucinous
- Tubular
- Metaplastic
- Papillary
- Inflammatory
- Paget's disease

# Stages of Breast Cancer

Stage	Primary Tumor	Nodes	Metastases
Stage 1A	≤ 20 mm	None	None
Stage 1B	≤ 20 mm	Nodal Micrometastases (>0.2 mm <2.0 mm)	None
Stage IIA	≤ 20 mm > 20 mm ≤ 50 mm	N1 None	None None
Stage IIB	> 20 mm ≤ 50 mm > 50 mm	N1 None	None
Stage IIIA	≤ 50 mm > 50 mm	N2 N1 or N2	None

## BREAKTHROUGHS IN ADJUVANT TREATMENT OF BREAST CANCER

Advances in In- Situ Breast Cancer, or Stage 0 Disease

- 20% to 30% of all DCIS will progress to invasive cancer. However, the long-term survival rate for patients with breast cancer treated for DCIS exceeds 95%.
- Treatment for DCIS includes a combination of surgery, radiation and hormonal therapy.
- One unanswered question is if all women need to get radiation therapy, as the risks of radiation therapy increase with age.
- The Oncotype DX DCIS test is a genomic test that analyzes the activity of a group of genes that can affect how DCIS is likely to behave and respond to treatment.
- Hopefully, the ongoing Evaluation of the DCIS Score for Decisions on Radiotherapy in Patients With Low/Intermediate Risk DCIS (DUCHESS) trial will give us this answer in the coming year.

#### Advances in Early Stage Disease, ER/PR+, HER2-.

- The biggest question for HR +, HER2- patients has been the benefit of adjuvant chemotherapy. Oncotype DX helped to answer this question.
- Oncotype DX tests a sample of the tumor for a group of 21 genes.
- The results of the Oncotype DX test help predict the chance of metastases and the likelihood of benefit of getting chemotherapy in addition to hormone therapy.
- Oncotype DX is used for tumors < 5 cm in size, LN negative, HR+, HER2 negative.</li>
- Regarding the question of who needs chemotherapy, the key trial is TAILORx (Trial Assigning Individualized Options for Treatment).

#### Advances in Early Stage Disease, ER/PR+, HER2disease, contd.

- This trial divided women into scores with low risk (0-10), intermediate risk (11-25) or high risk (26 and higher).
- Women at intermediate risk were randomly assigned to chemotherapy plus endocrine therapy or endocrine therapy alone and followed for 9 years.
- The researchers found that although intermediate-risk women < 50 years and those with a recurrence score in the higher range of intermediate (16-25) benefitted from chemotherapy, the majority of women in the intermediate group could skip it.



#### Advances in Early Stage, HER2+, ER/PR +/- Disease

- Standard of care involves patients often getting 'Neo-adjuvant' therapy if their cancer is HER2+, which involves a combination of chemotherapy, along with a drug that blocks the HER2 protein, called Trastuzumab (Herceptin).
- Patients who go to surgery after neoadjuvant treatment, and still have cancer left behind (residual disease) have a worse prognosis than those who have a pathological complete response.
- The KATHERINE trial asked the question that do the patients with residual disease benefit from changing the anti-HER2 treatment after surgery from targeted therapy alone with Trastuzumab, to a chemotherapy and anti-HER2 conjugate, called TDM-1 (Kadcyla).

#### Advances in Early Stage, HER2+ Disease

- The antibody-drug conjugate trastuzumab emtansine (T-DM1; Kadcyla, Genentech) consists of trastuzumab covalently linked to the cytotoxic microtubule poison DM1.
- In this trial, which involved nearly 1500 patients, those women who were treated with TDM-1 had a risk of recurrence of invasive breast cancer or death to be 50% lower with adjuvant T-DM1 than with trastuzumab alone.
- Both HR+ and HR- patients benefited from this strategy.
- Since its approval in May 2019, this is now considered Standard of Care for early stage HER2+ disease.

#### BREAKTHROUGHS IN TREATMENT OF METASTATIC BREAST CANCER

Advances in HER2+ Metastatic Breast Cancer

- Standard-of-care treatment for patients with HER2positive MBC is first-line trastuzumab plus pertuzumab and a taxane, followed by second-line trastuzumab emtansine for patients who have disease progression.
- After progression during treatment with trastuzumab emtansine, commonly used regimens include tyrosine kinase inhibitors such as lapatinib with trastuzumab or capecitabine, trastuzumab with chemotherapy, or participation in a clinical trial.
- The **HER2CLIMB Trial** looked at patients with HER2 positive metastatic cancer, previously treated with at least 2 anti HER2 agents, with many of the patients also having brain metastases.
- This involved the use of a new drug Tucatinib (Tukysa) in combination with Trastuzumab (Herceptin) and oral Capecitabine (Xeloda) v/s placebo.

Advances in HER2+ Metastatic Breast Cancer

- The PFS rate at 1 year was 33.1% in the tucatinib-combination group and 12.3% in the placebo-combination group, and the median duration of PFS was 7.8 months and 5.6 months, respectively.
- The OS rate at 2 years was 44.9% in the tucatinib-combination group and 26.6% in the placebo-combination group, and the median OS was 21.9 months and 17.4 months, respectively.
- Among the patients with brain metastases, PFS rate at 1 year was 24.9% in the tucatinibcombination group and 0% in the placebocombination group, and the median PFS was 7.6 months and 5.4 months, respectively.

Advances in HER2+ Metastatic Breast Cancer

#### **DESTINY-Breast 01 Trial**.

- This involved use of the novel agent Trastuzumab deruxtecan (Enhertu) which is an antibody-drug conjugate that is composed of a humanized monoclonal antibody specifically targeting HER2.
- Overall, 184 patients who had undergone a median of six previous treatments including Trastuzumab, Pertuzumab, and TDM-1, among other treatments, received the recommended dose of trastuzumab deruxtecan.
- The median response duration was 14.8 months, and the median duration of PFS was 16.4 months.

Breakthroughs for Metastatic ER/PR+ Breast cancer

- PI3 kinase is an enzyme important in cell growth. The *PIK3CA* gene helps control PI3 kinase enzyme activity. As a result, a mutation in this gene can cause cancer growth.
- 40% of breast cancers have a mutation in the *PIK3CA* gene.
- The PI3 kinase inhibitor alpelesib (Piqray) was studied in combination with Fulvestrant in patients with HR+ HER2- metastatic breast cancer.
- Progression-free survival at a median follow-up of 20 months was 11.0 months (95% confidence interval [CI], 7.5 to 14.5) in the alpelisib–fulvestrant group, as compared with 5.7 months (95% CI, 3.7 to 7.4) in the placebo–fulvestrant group.

Breakthroughs for Metastatic ER/PR+ Breast cancer – BRCA mutation+

- Poly(ADP-ribose) polymerase (PARP) inhibitors are a class of drugs under study for many types of cancer, including breast cancer.
- PARP is an enzyme involved in DNA repair. Some chemotherapy drugs damage tumor DNA. PARP inhibitors work to stop PARP from repairing tumor DNA to help the chemotherapy kill the cancer cells.
- PARP inhibitors are only used in breast cancer treatment for people who have a <u>BRCA1 or BRCA2 gene</u> <u>mutation</u>. <u>BRCA1/2</u>-related breast cancers seem to be sensitive to DNA damage involving the PARP enzyme.
- The PARP inhibitors <u>olaparib (Lynparza)</u> and <u>talazoparib</u> (<u>Talzenna</u>) are FDA-approved for the treatment of HER2negative metastatic breast cancer in people who have a *BRCA1/2* gene mutation.

## Metastatic Triple Negative Breast Cancer

- Trop-2 antibody-drug conjugates are a new class of Drugs now approved to fight TNBC.
- Antibody-drug conjugates are a combination of an antibody therapy and a chemotherapy drug. Combining these into one drug allows the targeted delivery of the chemotherapy to specific cancer cells.
- Some breast cancers have cells with higher levels of the protein Trop-2 than other breast cancers. Triple negative breast cancers tend to express Trop-2.
- Sacituzumab govitecan-hziy (Trodelvy) is an FDA-approved Trop-2 antibody-drug conjugate used to treat metastatic triple negative breast cancers.

# Knowing it exists is not enough.

Get informed. Pass it on.

BREAST CANCER DOES NOT STOP – EVEN FOR COVID 19! SCHEDULE YOUR MAMMOGRAM TODAY!

**SEETA TRIVEDI, M.D. PH# 908-757-9696.** 



धन्यवाद dhunyavaad આભાર aabhar Thank You

# Dr. Trivedi for sharing your knowledge

# Tel. (908) 957-9696

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#### Survivor ARGIE MOUTAFIS-AGELARAKIS



Argie Moutafis-Agelarakis, a Greek-American artist working in NY and Greece, earned her BFA at The School of Visual Arts, her MA at Adelphi University, and is a Part-Time Faculty member at both Universities. Drawing from her experience as a published illustrator in archaeology, anthropology, and art, she teaches courses in scientific illustration, food-culture-and-art, ethnobotany, the benefits of art therapy, art as social justice/activism, and the relationship of art and science. Her paintings, abstract or surreal, are influenced by her technical illustrations, yet break free from them, finding beauty in the purest forms in our natural environment, aiming to convey a rhythm or harmony of color, form, and composition. Surviving breast cancer influenced her work in terms of color, shape, and composition, again conveying harmony and hope.

## Argie's Breast Cancer Journey



- Mammogram/Sonogram
- Biopsy
- Lumpectomy
- Family History
- Prophylactic Mastectomy
- Post-Surgery
- Find Support!





ευχαριστώ efcharistó

Thanks Argie for sharing your survivor story

www.argiesart.com

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#### **Question & Answer Session**

#### Write your questions for Dr. Trivedi & Argie Moutafis-Agelarakis in the chat box





## Center for the Women of New York

Thanks

# Dr. Trivedi for sharing her knowledge and Argie for sharing her inspirational survivor story





#### **BREAST CANCER HELPLINES**

American Cancer Society 800-227-2345

https://www.cancer.org/about-us/what-we-do/providing-support.html

Live Chat

SHARE

https://www.sharecancersupport.org/breast-cancer/helpline/ 844-ASK-SHARE (844-275-7427) English/Spanish

Susan G. Komen 1-877 GO KOMEN (1-877-464-6636) <u>https://ww5.komen.org/breast-cancer-helpline.html</u> email: <u>helpline@komen.org</u>

> Triple Negative Breast Cancer Foundation 877-880-TNBC (877-880-8622) <u>https://tnbcfoundation.org/helpline</u>

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#### **BREAST CANCER RESEARCH**

Breast Cancer Research Foundation https://www.bcrf.org/breast-cancer-research

National Breast Cancer Foundation https://www.nationalbreastcancer.org/about-breast-cancer/

American Cancer Society https://www.cancer.org/cancer/breast-cancer.html

CDC (Centers for Disease Control) <u>https://www.cdc.gov/cancer/dcpc/resources/features/breastcancerawareness/index.htm</u>

National Institutes of Health – National Cancer Institute

https://www.cancer.gov/types/breast



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# Center for the Women of New York





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