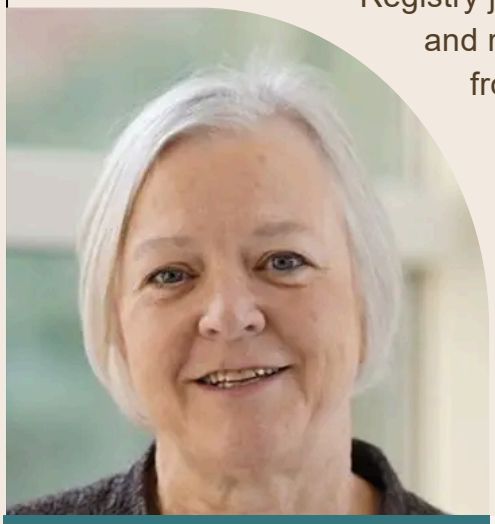
NORTH SOUTH BREAST CANCER STUDY

Message from the Director

We continue to be so thankful for all the NSBCS participants who have given their valuable time in helping us understand the causes of different types of breast cancer. We are in our fifth year and the study has enrolled over 3,200 women. Some New York participants may notice that we changed the name of the study to the North-South Breast Cancer Study (NSBCS) after the Louisiana Tumor Registry joined study recruitment in 2024. The Louisiana Tumor Registry joined as a new site to strengthen the diversity and reach of our research. Including participants from different regions helps us better understand how breast cancer affects women across the country and ensures that our findings are as meaningful and inclusive as possible.



Your contributions to the study help us answer important questions in breast cancer research, uncover patterns that may lead to earlier detection, and identify ways to improve treatment and prevention.

We are in our **FIFTH YEAR** and the study has ENROLLED OVER **3200** **women.**

Thanks to your participation, we now have enough women enrolled to begin working on preliminary analyses, an exciting step that brings us closer to meaningful discoveries.

Christine Ambrosone, PhD

ROSWELL PARK LEADS HISTORIC GENOMICS STUDY IN AFRICAN AMERICAN/BLACK WOMEN WITH TRIPLE-NEGATIVE BREAST CANCER

Thanks to the commitment and generosity of breast cancer research participants, Roswell Park Comprehensive Cancer Center has led the largest-ever genomic study of triple-negative breast cancer (TNBC) in African American/Black women. This groundbreaking research, published in Nature Genetics, marks a major milestone in understanding one of the most aggressive and difficult-to-treat forms of breast cancer.

Why this Study Matters

TNBC is different than most other breast cancers; it is less common than other subtypes, tends to grow faster, and women with TNBC tend to have poorer outcomes. Importantly, TNBCs lack receptors for estrogen, progesterone and human epidermal growth factor 2 (HER2), for which treatments have been developed to target, leaving fewer options for women with TNBC. TNBC also disproportionately affects Black women, yet until now, genomic studies have largely excluded them. By analyzing tumor samples from 462 Black women across the U.S., researchers, including several from our team, were able to uncover valuable information that could help improve diagnosis, treatment, and outcomes for future TNBC patients.

By looking closely at cancer cells in theses breast tumors from Black women, researchers were able to:

- Spot key gene changes in TNBC: Our team found that almost all of the TNBC tumors they studied had changes in a gene called TP53. This gene normally helps control how cells grow and repair themselves. When it is not working properly, cells can grow out of control leading to cancer. Knowing that TP53 is different in TNBC helps scientists focus on it when looking for better treatments.

- Help doctors tailor care more effectively: The study found that tumors in TNBC in Black women had many of the same genetic changes as those in women of other races. This means that there are important factors other than ancestry that influence progression of TNBC or how patients respond to treatment. Instead, other factors like age, environment, or lifestyle may play a bigger role. Understanding this helps doctors focus on what really matters when designing personalized treatment plans.

Your Role in Advancing Breast Cancer Research

This study was conducted in the Black Women's Health Study, The Women's Circle of Health Study, and the Southern Community Cohort Study and was not possible without the contributions of breast cancer survivors. By sharing their time, samples, and stories, research participants help scientists fill a critical gap in cancer research and move us all closer to more personalized, equitable care for all women facing breast cancer. As a participant in the North-South Breast Cancer Study, your stories will help us move the needle further in learning about the unique factors that influence breast cancer risk, progression, and outcomes.

Genomic Research?

When scientists talk about "genomic" research, they are looking at the complete set of DNA inside our cells called the genome to understand how genes behave and how changes in them might lead to diseases like cancer. Think of your genome as a giant instruction manual made up of genes. These genes tell your body how to grow, function, and repair itself. Sometimes, certain genes can change and those changes can cause cells to grow out of control, which is what happens in cancer.

TURNING TISSUE INTO DISCOVERY

Behind every breakthrough in breast cancer research is a team of dedicated experts including the pathologist, whose role is essential in understanding how cancer behaves at the cellular level.

Dr. Sayeeda Yasmeen is a breast pathologist and the North-South Breast Cancer Study pathologist at Roswell Park. Dr. Yasmeen reviews tumor tissues and helps us to identify tumor samples that will be useful for research. We asked Dr. Yasmeen to tell us more about her involvement in the study.

WHAT IS A PATHOLOGIST, AND HOW DO YOU CONTRIBUTE TO BREAST CANCER RESEARCH?

A pathologist is a specially trained doctor who studies tissues and cells to understand diseases. In breast cancer research, we play a vital role by:

- Looking at breast tissue under the microscope to see if cancer is present.
- Identifying the type and stage of cancer, which helps doctors plan treatment.
- Testing for important markers like hormone receptors (ER, PR) and HER2, which guide therapy choices.
- Working side by side with researchers to discover new ways to detect and treat breast cancer.

Simply put, pathologists turn what is seen under the microscope into the knowledge that drives better care and new discoveries.

WHAT HAPPENS TO THE TISSUE SAMPLES AFTER THEY'RE COLLECTED FROM PARTICIPANTS?

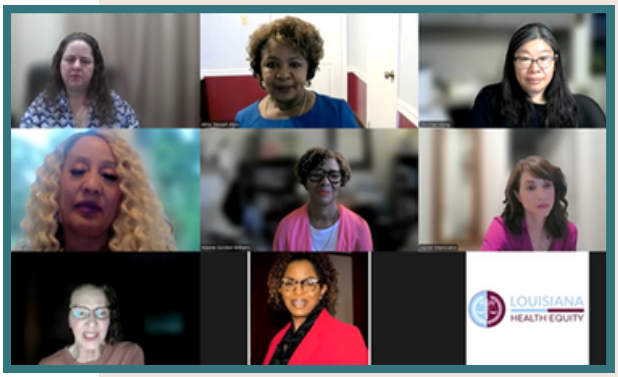
After tissue samples are taken during a biopsy or surgery, they are labeled and stored safely to protect patient identity.

The samples are then reviewed by a breast pathologist to confirm presence of tumor and identify key characteristics about the tumor such as the hormone receptor status, grade, and stage.

These samples help scientists understand how breast cancers behave and respond to different treatments, bringing us closer to cures.

IN THE SPOTLIGHT

WEBINAR



On May 13, 2025, Dr. Chi-Chen Hong presented insights from the North-South Breast Cancer Study during the Louisiana Center for Health Equity's commemoration of Women's Health Week. The event, themed "Women's Health: Happenings, Hurdles, and Hope," brought together researchers, healthcare professionals, and cancer survivors for a powerful and informative webinar.

Dr. Hong's talk highlighted the goals and progress of the North-South Breast Cancer Cancer Study, emphasizing the importance of inclusive research and the unique challenges faced by women across different regions. The session blended scientific findings with personal stories, offering a well-rounded perspective on the realities of breast cancer and the hope that research brings. Participants heard from both experts and individuals with lived experience, making the event a meaningful reminder of why studies like ours matter and how your participation contributes to advancing women's health.

On April 19, 2025, Dr. Christine Ambrosone and Dr. Chi-Chen Hong spoke at the Women's Health Symposium hosted by Roswell Park, where they shared recent findings from the North-South Breast Cancer Study. Their presentation also included highlights from other national women's health initiatives and local research efforts.

The symposium fostered meaningful dialogue, with some study participants in attendance contributing to a vibrant and thoughtful discussion. The event underscored the value of community engagement in research and the importance of sharing results with those who make the studies possible – YOU!

We're grateful for everyone who helped make the conversation so impactful and look forward to hosting something similar in the future.

WOULD YOU LIKE TO HEAR ABOUT FUTURE STUDIES?

As part of our commitment to advancing breast cancer research, we occasionally conduct new studies that help us learn more about the causes, prevention, treatment, and ways to improve quality of life and overall well-being for women affected by breast cancer. If you are interested in being contacted about future research opportunities, please let us know by providing your information below and returning this form. Your information will only be used to contact you for research studies being conducted by the NSBCS investigators and collaborators. You may ask to be removed from our Future Contact List at any time. Questions? Call 716-845-4851 or Text 716-226-6711.

Yes, I'd like to be contacted by mail for future studies:

Name: _____

Mailing Address: _____

_____

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