

# Carolina Breast Cancer Study

## Phase III: The Jeanne Hopkins Lucas Study



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“Life isn’t about waiting for the storm to pass...It’s about learning to dance in the rain.” - Vivian Greene

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CAROLINA  
BREAST  
CANCER  
STUDY

### Dear CBCS Participants,

North Carolina’s Mountains-to-Sea trail stretches 1175 miles from Murphy to Manteo, its paths worn by travelers over many decades. The trail is maintained by volunteers who dedicate their free time to trail building, maintenance, and repair and who form a community that supports future generations who will cross these same paths. Carolina Breast Cancer Study participants like you give similarly, of your time and knowledge and lived experience, to help future generations. Your volunteerism helps other women in their journeys with breast cancer. We are so grateful for your enduring commitment.

This newsletter marks 14 years since the first participants joined Carolina Breast Cancer Study. Many milestones have been blazed on our trail to stop breast cancer thanks to CBCS participants. Your contributions have led to over 200 research articles, including 42 published in 2019-2022 alone. This research communicates our findings to health care providers all over the country and leads to improved survivorship for women with breast cancer.

We are not stopping here. We will continue to identify ways to improve outcomes for North Carolinians facing breast cancer. In this newsletter, we share some of the latest findings that your participation made possible. We also share news of the exciting launch of a new phase of CBCS (Phase 4) in Summer 2023. We’ve added fabulous new staff to our team, and we’d like to introduce them.

This spring, we also launched an important new project about breast cancer stories. We know that stories can make a difference and offer support to fellow survivors, and stories can also help improve our research questions and make a difference for breast cancer treatment and management. Stories can also offer a way to share with future generations, leaving a record of lived experiences. Through a collaboration with the Southern Oral History Project, we are inviting CBCS participants to share their stories for an oral history project.

Thank you for continuing to volunteer your time and helping to blaze a trail for the next generation of women. On behalf of our team and all the women whose lives have been impacted by your legacy, we thank you.

▶  
Dr. Melissa Troester



## LAUNCH OF CAROLINA BREAST CANCER STUDY PHASE 4

# Carolina Breast Cancer Study



Black women and younger women are more likely to die from breast cancer, and for more than thirty years, UNC researchers have been working to understand why so we can stop these patterns. The

Carolina Breast Cancer Study showed that Black women and women who are under age 50 are more likely to have aggressive forms of breast cancer. But two women with the same kind of cancer still have different outcomes in North Carolina, and this

suggests differences in their care and their ability to access care. We are studying how tumor biology interacts with other factors like the ability to find care providers, travel to hospitals, and complete a treatment plan.

An important part of understanding breast cancer treatment differences is understanding access in different parts of the state and in different subgroups of people. To do this, we need to expand our size and therefore CBCS4 aims to enroll 3,050 people from an even larger group of North Carolina counties. Like CBCS3, this new phase is also going to focus on understanding younger and older and Black and white subgroups equally. This will help researchers look at through the variation within each of these groups.

Our team is honored to be a part of continuing the CBCS legacy, and we seek to stop breast cancer through better diagnosis, treatment, and survivorship for all North Carolina breast cancer patients.



### BREAST CANCER IN RECENTLY PREGNANT AND YOUNGER WOMEN

Past studies found that younger and recently pregnant women had worse breast cancer outcomes. To understand why, this study looked at how treatment depended on age during childbearing years. Women less than 40 years old and women who were pregnant within 5 years of diagnosis were more likely to have later stage cancer AND they were more likely to receive aggressive treatment (like mastectomy and chemotherapy). Younger women also started treatment faster than other women. These results suggest that poor outcomes in recently pregnant and younger women aren't caused by undertreatment or treatment delays.

### GENETICS AND RISK OF RECURRENCE IN BLACK VS. WHITE WOMEN

Genetic tests performed on a tumor can predict a patient's using the genes that are turned off and on in the tumor. These tests guide treatment decisions and can help doctors optimize treatment and lower the risk of a tumor coming back. Previously, Black women in CBCS were found to have higher risk tumors and CBCS investigators wanted to know whether this was due to differences in ancestry and inherited genes. Differences in inherited genes were compared to differences in tumor genes to identify seven genes that are 7 inherited genes that predict tumor genetics in White women. In contrast, only 1 inherited gene was associated with tumor genetics in Black women. Thus, differences in tumor genetics are linked to few genes in both Black and white women.

### HEPATOCYTE GROWTH FACTOR PATHWAY (HGF) AND BREAST CANCER OUTCOMES IN BLACK & NON-BLACK WOMEN

Triple-negative breast cancer hard to treat because it doesn't have the receptors (like estrogen receptor and HER2) that are targeted for other types of cancer. However, recent research showed that one pathway called hepatocyte growth factor (HGF) pathway is active in triple negative disease and this pathway can be targeted. The study found that HGF-positive tumors occurred more frequently in Black women and was related to higher recurrence and mortality at the 5-year mark of follow-up. Thus targeting the HGF pathway is a promising pathway for targeting triple negative tumors to reduce health disparities.



Want to know about what CBCS researchers have learned thanks to your participation?

Visit [unclineberger.org/cbcs/results](https://unclineberger.org/cbcs/results) for the latest!



## MEET THE TEAM

Melissa Troester, MPH, PhD  
Principal Investigator



Dr. Melissa Troester, Professor of Epidemiology, with joint appointment in Pathology & Laboratory Medicine, leads the CBCS3 project with the collaboration of an diverse team

of scientists from genetics, medicine, computer science and other fields. Dr. Troester is co-leader of Lineberger's Program in Cancer Epidemiology and the Director of the UNC Center for Environmental Health and Susceptibility. Her research focuses on biomarker development and validation, genomic methods, and breast cancer. Dr. Troester has been leading CBCS molecular research since 2012. New research directions include using CBCS data to understand immune response and identify possible opportunities to leverage immunotherapy to improve health equity.

Linda Shaw  
Telephone Interviewer



**Linda is a breast cancer survivor herself, diagnosed in 2008. She has been involved in research since 2010. As a woman with no risk factors, other than being one of the "1 in 8" statistics, she**

**is a strong advocate for early detection, regular self breast exams, and yearly mammograms. Linda really enjoys talking and getting to know the women in this study and hearing about their experiences.**

Erin Lutz  
Telephone Interviewer



**Erin has been involved in research at UNC since 2010. Prior to joining the Carolina Breast Cancer Study in 2016, she interviewed participants in two kidney disease studies conducted**

**by the School of Nursing. Erin thoroughly enjoys connecting with breast cancer survivors to gather important information through telephone interviews.**

Heather Tipaldos, MS  
Project Director



Heather Tipaldos, MS, CRA is a highly positive, innovative team leader who thrives on consistently raising the standards of personal and professional excellence. Heather

is deeply committed to community engagement and is dedicated to advancing equity, diversity, and inclusion in the research sector. She manages administration and study staff, enrollment coordination, and data collection. She brings experience from a wide range of cancer studies.

Jamie Hunter  
Project Manager



Jamie Hunter, PMP, is a dedicated research professional who works with the study team to seek excellence and quality data collection in the Carolina Breast Cancer Study. She

desires to ensure study participants have positive research experiences while maintaining precision in the implementation of the specified CBCS aims and outcomes.

Chris Halloran  
Study Coordinator



Chris Halloran, MTS, MPH candidate, is a research specialist and study coordinator of the Carolina Breast Cancer Study. He is responsible for working with the Principal Investigator

to design and run the study's day-to-day operations to achieve the research goals and standards. Chris works closely with all study staff to make sure that the needs of the participants are met.

Michele Smith  
Research Assistant



Michele has been a research assistant with CBCS3 since 2010. She has been a key figure in the study's longevity and success. She mails thank you letters and incentives. She sends and receives mail-

in surveys, and records data entry and medical record requests.

Sue Campbell  
Research Assistant



Sue Campbell is the medical records abstractor for the study. This means she distills the depth and details of medical records into forms that make it possible for CBCS researchers to analyze.

contributed to almost every phase of the study at some point in the last 15 years.

CBCS3 knows that your stories are important. Your stories can help other survivors and women who are at risk for breast cancer. Your stories can also help us strengthen our research. We are beginning a new project to collect breast cancer stories and save them as part of the historical record. The stories our team collects will be saved in an audio archive at UNC's Wilson Library so generations in the future will know more about the lived experience of cancer survivors in our time.

## STORIES OF SURVIVORSHIP



Stories  
of  
Survivorship

We are working with the Southern Oral History Program (SOHP), a UNC group that is committed to the power of memory, voice, and storytelling that informs our evolving ideas about the people and cultures of the American South. We want to ensure that the stories of breast cancer survivors and their experiences with health care, diagnosis and treatment in North Carolina are part of that record. We will do this by collecting stories (histories) from people diagnosed with breast cancer.

These stories will also help us improve our research. Your stories matter and have already been preserved in the CBCS data. We'd like to make the opportunity available to save more textual and personal accounts for CBCS participants who are interested.

## Carolina Breast Cancer Study: Phase 3

An epidemiologic population based breast cancer research study at the University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, funded through the University Cancer Research Fund, the National Cancer Institute, and Susan G. Komen.

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UNC Lineberger Comprehensive Cancer Center's "Population Group." This dynamic team has expanded the skills gained from working on CBCS3 to initiate and run similar studies on head and neck cancer, endometrial cancer, and the new CBCS4 study.