



# THE SISTER STUDY

## BREAST CANCER RESEARCH

WINTER 2023

WOMAN BY WOMAN, SISTER BY SISTER, WE CAN MAKE A DIFFERENCE!

### Dear Sisters

To help you keep up with the latest Sister Study news, we plan to send you periodic flyers with our latest updates. You will also find the latest news on our Sister Study website [sisterstudy.niehs.nih.gov/English/new.htm](https://sisterstudy.niehs.nih.gov/English/new.htm) and on our Sister Study Facebook group page. To join our Facebook group, search for "NIEHS Sister Study" on Facebook, scroll to the right of the top bar, click "Groups", and ask to join our private group. You may also follow this direct link [www.facebook.com/groups/niehsisterstudy](https://www.facebook.com/groups/niehsisterstudy). Thank you for helping our researchers continue to advance breast cancer research!



### Meet Dr. Sarah Cohen, the Sister Study's new Project Director!

In this role, she will oversee all aspects of the study's data, laboratory, and manuscripts using our rich data resource. She will provide scientific oversight to the study team, and will work closely with the study investigators at NIEHS to continue to build on the amazing legacy of this important study.

Sarah recently joined the team spending the last decade leading a consulting practice in the private sector. She has designed and directed research studies in the US and around the world that covered a variety of topics including cardiovascular disease, diabetes, cancer screening, infant feeding, critical care nutrition, physical activity, and potential health effects of environmental exposures. Sarah has also spent over twenty years as an investigator on the Million Person Study, which is the first and largest study of its kind to investigate the health effects of low-dose radiation on American workers and veterans throughout the 20th century. She started her career as an investigator on the Southern Community Cohort Study, which is a large study in the American South designed to better understand the root causes of cancer health disparities. **Welcome to the team, Sarah!**



**Please remember to complete your latest Health Update**

**Thank you if you have already completed it! If not, please check your emails and/or mailbox.**

## OUR RECENT FINDINGS:

### Obesity, metabolic conditions, and thyroid cancer

Thyroid cancer incidence has increased worldwide. Increasing rates of obesity may play a role, and Sister Study researchers sought to further investigate how body mass index, other measures of body size, and certain metabolism-related conditions may be related to thyroid cancer. 259 Sister Study participants have been diagnosed with thyroid cancer since enrollment. Higher body mass index, higher waist circumference, and higher waist-to-hip ratio were positively associated with thyroid cancer occurrence, as were lipid disorders such as high cholesterol, borderline diabetes, hypertension (high blood pressure), and polycystic ovary syndrome. These findings provide insights into potential biological mechanisms linking obesity and thyroid cancer. [Click here to read more!](#)



[Click here to watch a new interview with Dr. Alexandra White, Sister Study Investigator, about her team's recent publication regarding chemical hair straighteners!](#)

### Shared heritability across cancers

Certain genetic factors may contribute to the risk of several types of cancer. In a [recent collaborative study](#) that included nearly 1 million individuals with and without cancer, investigators identified 15 genetic mutations associated with all 12 types of cancer studied (breast, colorectal, endometrial, esophageal, glioma, head and neck, lung, melanoma, ovarian, pancreatic, prostate, and renal). Another 77 genetic sites were associated with at least 2 of the cancer types. Overall, these results suggest that some genetic risk variants are shared among cancers, though much of cancer heritability is cancer-specific. [Click here to read more!](#)

## A Big Thanks to Our Generous Sister Study Sisters!

Since we began analyzing the data provided by our generous Sisters, **our researchers have published over 300 scientific papers!** These findings contribute to improvements in our understanding of the environmental and genetic causes of breast cancer and other important issues in women's health. We are proud of what we have accomplished together with our study sisters! Thank you for sticking with us!

To view our study findings, please visit our Sister Study website: <https://sisterstudy.niehs.nih.gov/English/articles.htm>

### Pregnancy complications and premenopausal breast cancer

The pregnancy complications preeclampsia and preterm birth may affect future breast cancer risk in different ways, even though women with preeclampsia are more likely to have a preterm birth. A very large study was needed to disentangle these relationships. In a recently published paper, Sister Study investigators led an analysis of data from 6 different cohort studies, including the Sister Study, to try to understand how preeclampsia and preterm birth may be linked to breast cancer occurring prior to menopause. They found that women who experienced preeclampsia were less likely to develop premenopausal breast cancer. While preterm birth was not associated with premenopausal breast cancer among all women, it was associated with higher rates of premenopausal breast cancer among those who experienced preeclampsia or gestational hypertension (high blood pressure during pregnancy). This study helps to clarify the complicated relationships between certain pregnancy complications and premenopausal breast cancer risk and may help to identify high risk women. [Click here to read more!](#)

As always, please contact us at the Sister Study helpdesk toll-free at 877-4SISTER (877-474-7837) or email us at [update@sisterstudy.org](mailto:update@sisterstudy.org) if you have updates or questions.