

2024 RESEARCH FAST FACTS

Hereditary Breast Cancers



RESEARCH INVESTMENT AT A GLANCE: (1982-2024)

More than **\$87 million** in over **200** research grants and more than **40** clinical trials focused on hereditary and/or *BRCA* breast cancers



ABOUT HEREDITARY BREAST CANCERS

Most breast cancers occur by chance. But, [in hereditary breast cancer](#), the cancer is caused by a changed or damaged gene inherited from either your mother or father. Around 5-10% of all breast cancers in the U.S. are thought to be hereditary. Identification of inherited gene mutations is a crucial step in determining a person's individual risk, empowering them to take charge of their health, and to take measures that may reduce their risk of breast cancer.

WHAT WE'RE INVESTIGATING



Determining if rare genetic mutations in women 40 years old or younger with breast cancer are associated with developing local recurrence, metastatic breast cancer, or cancer in the other breast.



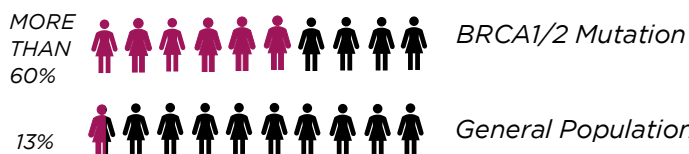
Investigating the potential for using the body's own immune system to prevent breast cancer in people who carry [BRCA gene mutations](#).



Understanding how genetic testing for inherited mutations in known breast cancer-associated genes can potentially reduce disparities in breast cancer outcomes for Black women.

INHERITED BRCA GENE MUTATIONS AND CANCER RISK

Lifetime risk of developing breast cancer in women:



While everyone has the *BRCA1* and *BRCA2* genes (Breast Cancer susceptibility genes 1 and 2), those who have an inherited mutation in one or both genes have an increased risk of inherited, or hereditary, breast cancer. Learn more about *BRCA1* and *BRCA2* mutations and cancer risk in women [here](#) and men [here](#).

SPOTLIGHT

Career Transition Award Grantee Dr. Kristen Brantley is researching gene mutations that may be associated with an increased risk of contralateral breast cancer, as well as metastatic recurrence, in women diagnosed with breast cancer at 40 years old or younger.



WHAT WE'VE LEARNED FROM KOMEN-FUNDED RESEARCH

- A recent study suggests that [preventive double mastectomies](#) may be overused in women who carry certain genetic mutations in ATM and CHEK2 genes and who are likely at lower risk for breast cancer.
- A recent pilot study of a new Internet-based tool indicated that the tool works for increasing confidence and decision-making about genetic testing among high-risk [Ashkenazi Jewish women](#), but barriers to genetic testing remain.
- Women from The Bahamas appear to be twice as likely to have a BRCA1 mutation than the general population.



LEARN MORE ABOUT BREAST CANCER

MORE KOMEN-FUNDED RESEARCH STORIES

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