

BRCA RESEARCH SAVES LIVES

BRCA1 and BRCA2 (breast cancer susceptibility) are genes that help prevent breast cancer from developing. They are responsible for repairing defects in our DNA and maintaining our genes, which can prevent tumors from forming. When they are functioning properly, they are considered to be tumor suppressors. When mutations occur in the BRCA genes, their function is disrupted. They cannot effectively repair DNA damage, and defects accumulate, making cells more prone to cancer.

Mutations in BRCA are often inherited and people who have them are at increased risk for breast cancer—called **inherited breast cancer**. However, not all people with the BRCA mutation will get breast cancer. BRCA mutations can also occur sporadically (not inherited).

A small number—15-25%—of inherited breast cancers are a result of BRCA mutations.

Chances of Developing Breast Cancer by Age 70



Learn more about BRCA and breast cancer <http://sgk.mn/Zq4Kmy>

OUR RESEARCH INVESTMENT: (1982-2020)

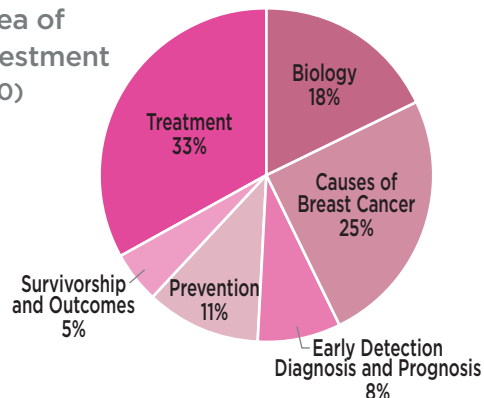
More than **\$66 million** in over **150 research grants** and **26 clinical trials** focused on BRCA mutations in breast cancer

What We're Investigating

- Developing new ways to prevent breast cancer in BRCA mutation carriers, including new drugs.
- Identifying new drug targets to help overcome treatment resistance and stop BRCA-mutant breast cancer recurrence.
- Understanding how the immune system impacts treatment response in BRCA-mutant breast cancer to improve long-term outcomes.



Topic Area of Total Investment (1982-2020)



Read about a Komen study led by Dr. Nadine Tung and colleagues, confirms treatment options for HER2-Negative Patients with BRCA1/2 Mutations.

WHAT WE'VE LEARNED from Komen-funded research

- Different populations have different BRCA mutations, which may affect their relative risk of developing breast cancer.
- Women from The Bahamas appear to be twice as likely to have a BRCA1 mutation than the general population.
- Newly identified risk factors may help predict which women with the BRCA mutation will get breast cancer.

Learn more about breast cancer

More Komen-funded Research Stories

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