



The Breast Cancer Research Foundation is a nonprofit organization committed to ending breast cancer.

Breast cancer is a complex disease with no simple solution. Every diagnosis is unique and puts lives at risk. We must stop breast cancer in its tracks, and research is the answer.

Founded in 1993 by Evelyn H. Lauder, the Breast Cancer Research Foundation is the largest private funder of breast cancer research in the world. We invest in a wide range of research—from prevention to metastasis—because each area of investigation informs another, propelling us toward the solutions we urgently need.

We convene and connect the best minds in science—giving them the opportunity to pursue their most innovative ideas. Our combination of investment and cross-disciplinary collaboration accelerates the entire field and builds momentum for new discoveries. BCRF-funded investigators have been behind every major breakthrough in breast cancer research, and the field is moving faster than ever. We can't stop now.

With you, and the entire BCRF community, we are fueling the world's most promising research. Join us—together, we will bring the end of breast cancer into focus. **Learn more and get involved at [BCRF.org](http://BCRF.org).**



Fast facts  
In the U.S.

1 in 8  
WOMEN WILL BE  
DIAGNOSED WITH  
BREAST CANCER

MORE THAN  
43,000  
AMERICANS DIE  
FROM BREAST  
CANCER EACH YEAR

THERE ARE OVER  
4  
MILLION  
SURVIVORS TODAY



VISIT [BCRF.ORG](http://BCRF.ORG)

# Progress Is Possible

## **WE KNOW MORE ABOUT THE ORIGINS OF CANCER THAN EVER BEFORE.**

BCRF-supported research led to the discovery of breast cancer stem cells, the very “roots” of the disease, which are helping us understand cancer’s fundamental properties. From this knowledge, our researchers can explore ways to target breast cancer stem cells to prevent breast cancer progression and metastasis.

## **WE HAVE DISCOVERED THAT BREAST CANCER IS NOT ONE BUT MANY DISEASES.**

It was BCRF researchers who found that breast cancer is, in fact, several different diseases, each of which develops, progresses and responds to therapies differently. Our scientists are now learning that the major subtypes—Luminal A, Luminal B, HER2-positive and triple-negative—can be further classified into sub-categories with distinct patterns of progression and response to therapies, opening the door to more individualized treatment plans.

## **WE ARE UNCOVERING THE ROLE GENETICS PLAYS IN BREAST CANCER.**

BCRF has supported key players in advancing our understanding of the inheritable risk of breast cancer, from discoveries about BRCA1 and BRCA2 mutations to the creation of the world’s most comprehensive database of breast cancer genes. This new wealth of knowledge allows scientists to identify other gene mutations that may influence a person’s risk of developing breast or ovarian cancer.

## **WE’VE DEEPENED OUR UNDERSTANDING OF HOW LIFESTYLE INFLUENCES BREAST CANCER RISK.**

Our researchers have demonstrated that certain lifestyle choices can influence incidence and recurrence. Thanks to their work, we have begun to understand how diet and exercise are linked to breast cancer risk and survival, how inflammation from obesity may trigger breast cancer development and how a low-fat diet and weight loss can reduce the risk of recurrence.

## **ONE-SIZE-FITS-ALL TREATMENT IS A THING OF THE PAST.**

Our scientists have contributed significantly to the development of precision medicine and individualized therapies, resulting in better, more effective treatments and fewer side effects. BCRF supported the early clinical trials that helped to accelerate the development of Herceptin (trastuzumab), a targeted therapy for HER2+ breast cancer proven to decrease the risk of recurrence by 50 percent. Herceptin, as well as newer targeted drugs, have dramatically changed the management of HER2+ breast cancer.

## **FEWER PATIENTS WITH LOW-RISK BREAST CANCER ARE OVERTREATED.**

BCRF-funded research in the United States and Europe has contributed to the development of diagnostic tools that help doctors evaluate whether a woman with early-stage ER+ breast cancer can forego chemotherapy and receive the same benefit from less toxic hormonal therapies. Preventing overtreatment has allowed patients to avoid unnecessary side effects and improved quality of life for many women.

## **WE CAN BETTER PREDICT A PATIENT’S RESPONSE TO TREATMENT AND RISK OF RECURRENCE.**

Our researchers were critical players in the breakthrough of biomarkers, unique molecular signals that can help predict how tumors will respond to certain treatments and the possibility of cancer returning. This discovery helps ensure patients not only receive the right drugs but also that preventive measures can be initiated early in patients with a high risk of recurrence or metastasis.

## **WE HAVE BEGUN TO UNDERSTAND HOW TO HARNESS THE BODY’S OWN IMMUNE SYSTEM.**

Our researchers have advanced our understanding of the tumor’s microenvironment and identified different classes of immune cells that either block tumor growth or promote it. Their studies have laid the groundwork for the discovery of immune biomarkers that can predict treatment response, targeted therapies to enhance immune response and the development of vaccines to use in combination with other therapies to improve treatment outcomes and prevent metastasis.

## **WE KNOW MORE ABOUT LIFE AFTER BREAST CANCER AND THE ISSUES FACING SURVIVORS.**

BCRF funds leaders in the field who are focused on survivorship and quality of life and conducting studies to improve cognitive impairment from chemotherapy and reduce cancer-associated stress and fatigue. We also fund research that has shown that a healthy lifestyle may reduce side effects from treatment and the risk of recurrence, and identified biomarkers that can indicate the presence of other health conditions resulting from chemotherapy, providing opportunities for early interventions.

## **WE ARE LEARNING MORE ABOUT WHY CANCERS SPREAD OR RETURN.**

BCRF investigators are working diligently to uncover why certain breast cancer spread or recur. We support research that aims to identify markers in blood or DNA to improve our ability to measure the risk of metastasis and develop strategies to prevent it and fund clinical trials that are testing promising new combination therapies for treatment of advanced breast cancer.