BREAST CANCER RESEARCH PROGRAM

CDMRP
DEPARTMENT OF DEFENSE
CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS

MISSION: To end breast cancer for Service Members and their Families, Veterans and the general public by funding innovative, high-impact research through a partnership of scientists and consumers.

Congressional Appropriations FY92-FY25:

$4.521B total

"Reviewing for the DOD BCRP is my absolute favorite part of my advocacy. It is clear that the scientific community understands the myriad of challenges facing the breast cancer community – patient care, safety and efficacy, improving life expectancy and working to eradicate disease. I strongly feel that by participating in the DOD BCRP panel reviews, I can make a difference in ending cancer."

Lori Petitti,
Lobular Breast Cancer Alliance,
FY17-FY23 Consumer Peer Reviewer

SCOPE OF THE PROBLEM

2025 Estimations in the U.S.[1]

Incidence:
316,950 women and **2,800** men will receive a diagnosis of invasive breast cancer

59,080 women will receive a diagnosis of ductal carcinoma in situ, an early-stage breast cancer

Mortality:
42,170 women and **510** men will die

Recurrence and metastasis

10%–30% of women diagnosed with invasive breast cancer will have a recurrence[2-4]

No cure once metastatic disease occurs

RELEVANCE TO MILITARY HEALTH

Higher incidence rate in female Service Members **40-59 years of age** than in the general population[5]

Incidence rate for active-duty females is **7 times higher** than average incidence rates of 15 other cancer types across all Service Members[6]

PROGRAM PRIORITIES

The BCRP challenges the scientific community to design research that will address the urgency of ending breast cancer. Considering the current breast cancer landscape and the BCRP's mission to end breast cancer, the BCRP seeks applications that address the following overarching challenges:

- Prevent breast cancer (primary prevention)
- Identify determinants of breast cancer initiation, risk or susceptibility
- Distinguish deadly from non-deadly breast cancers
- Conquer the problems of overdiagnosis and overtreatment
- Identify what drives breast cancer growth; determine how to stop it
- Identify why some breast cancers become metastatic
- Determine why/how breast cancer cells lie dormant for years and then re-emerge; determine how to prevent lethal recurrence
- Revolutionize treatment regimens by replacing them with ones that are more effective, less toxic and impact survival
- Eliminate the mortality associated with metastatic breast cancer

1 American Cancer Society. *Cancer Facts & Figures* 2025.
2 Colleoni M, et al. *J Clin Oncol* 34, no.9, 2016:927-935.
3 Pan H, et al. *N Engl J Med* 377, no.19, 2017:1836-1846.
4 Pedersen RN, et al. *J Natl Cancer Inst* 114, no.3, 2022:391-399.
5 Bytnar JA, et al. *Cancer* 130, no.1, 2024:96-106.
6 Lee T, et al. *MSMR* 23, no.7, 2016:23-31.

PROGRAM IMPACT AND OUTCOMES

TREATMENTS

- FDA-approved therapeutics: Herceptin®, Ibrance®, Verzenio®, and Kisqali®
- Tamoxifen for long-term, i.e., 10 years, treatment of estrogen receptor-positive breast cancer
- Prone radiotherapy treatment to reduce harmful radiation to the heart and lungs

DIAGNOSTICS AND PROGNOSTICS

- Sentinel lymph node biopsy for tumor staging
- Molecular breast imaging for high-resolution functional images of the breast
- Digital mammography and digital breast tomosynthesis for advanced breast imaging
- Breast Cancer Index® for evaluating the likelihood of recurrence and benefit from extended endocrine therapy
- MetaSite Breast™ test for predicting the metastatic potential of a primary breast cancer
- MenaCalc™ as a prognostic predictor of recurrence and metastasis

RISK ASSESSMENT

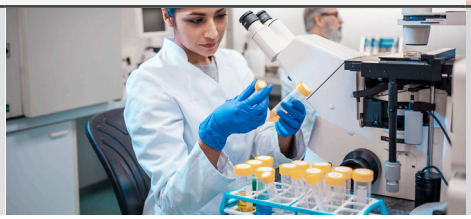
- Identification of breast cancer risk-associated mutations: BRCA2 617delT, PTEN and PALB2
- OncoVue® and BROCA Cancer Risk Panel: genetics-based breast cancer risk tests

RESOURCES

- BreastCancerTrials.org: a resource tool that informs patients about ongoing breast cancer clinical trials
- Dyson Family Risk Assessment Program: provides counseling and risk analysis to individuals with a family history of breast or ovarian cancer
- Patient-derived breast tumor models for tumor growth, metastasis, drug efficacy, and prognosis
- nCounter® Myeloid Innate Immunity Panel: Commercialized tool for basic and translational immuno-oncology research

In the Clinical Pipeline

The BCRP funds numerous clinical trials, including trials to advance approaches in immunotherapy and prevention.

	Phase 1	Phase 2	Phase 3
IMMUNOTHERAPY	**Dendritic Cell Vaccines for Brain-Metastatic Breast Cancer** In patients with leptomeningeal disease from triple-negative or HER2$^+$ breast cancer	Combined with pembrolizumab in patients with brain metastasis from triple-negative or HER2$^+$ breast cancer	
	Radiotherapy-Mediated Immunomodulation to Overcome Immunotherapy Resistance Preoperative radiation combined with pembrolizumab in patients diagnosed with early-stage operable triple-negative or ER$^+$ breast cancers		
PREVENTION	**Alpha-Lactalbumin Vaccine** Vaccine to prevent recurrence in triple-negative breast cancer patients or prevent breast cancer in healthy individuals		**Denosumab** Prophylactic to prevent breast cancer in women with BRCA1 germline mutations

Point of Contact: CDMRP Public Affairs
dha.detrick.cdmrp.mbx.public-affairs@health.mil

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