General Overview

The Bay Area Breast Cancer and Environment Research Center (BABCERC) is one of four centers nationwide that studies the environmental causes of breast cancer by focusing on mammary gland development during puberty when the breast may be especially vulnerable to environmental influences. The Center is based at the University of California San Francisco under the leadership of Dr. Robert A. Hiatt, Director of Population Sciences, UCSF Comprehensive Cancer Center.

The Center includes a basic science project that studies mammary cells in normal and cancer-prone mice; an epidemiologic study that will follow a cohort of ~400 6- to 7-year old girls prospectively for five years through the pubertal transition; and a Community Outreach and Translation Core (COTC) to represent the concerns of the advocate community and provide a channel for bi-directional communication between scientists and the community.

The overall outcomes of the Breast Cancer and Environment Research Centers will be a better understanding of environmental factors that may lead to breast cancer. The centers will use this information to educate young girls and women at risk of developing breast cancer about the role(s) of specific environmental factors in breast cancer and how to reduce their exposure to those agents. This information will help develop public health programs for breast cancer prevention.

Environmental Effects on the Molecular Architecture and Function of the Mammary Gland across the Lifespan

The basic science project is entitled "Environmental Effects on the Molecular Architecture and Function of the Mammary Gland across the Lifespan." In this project we are conducting studies on normal mammary glands at the molecular, cellular and organ level in mice that parallel the steps in the development of cancer. Models for breast cancer development will be used to understand how environmental factors regulate cell behavior during development and conversion to cancer.

Project Leader: Zena Werb, PhD, UC San Francisco

Cohort study of Young Girls' Nutrition, Environment, and Transitions

The epidemiologic project is entitled "Cohort study of Young Girls' Nutrition, Environment, and Transitions (CYGNET)." This project is focused on understanding the determinants of pubertal maturation in girls. We know that there has been a trend of puberty occurring at younger ages, and early puberty is a risk factor for breast cancer. Of particular interest is whether exposure to various chemicals in the environment results in earlier puberty. Also, since greater body fat is known to increase the likelihood of early puberty, we will examine developmental and lifestyle factors such as changes in weight, physical activity patterns, and food intake. Additionally, we will also examine whether genetic and psychosocial factors influence early puberty and interact with environmental exposures. Through this study, we hope to better understand whether there are important, unrecognized factors that result in early puberty and may place girls at increased risk of the future development of breast cancer.

Project Leader: Lawrence Kushi, ScD, Division of Research, Kaiser Permanente, Oakland

Community Outreach & Translation Core

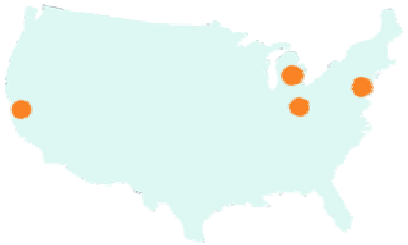
The overall goal of the COTC is the enhancement of partnerships and collaborations amongst researchers, public health professionals, public policy makers, breast cancer and environmental advocates, and community members.

The COTC provides opportunities for community members, breast cancer and environmental advocates, public professionals and policy makers to increase their understanding of the center's research studies, the research process, and the role environmental stressors play in the development of breast cancer, and for researchers to increase their understanding about community, environmental, and health issues related to breast cancer.

Members of the COTC actively participate in both research projects where they bring the communities' perspective to the table. The COTC will translate research findings back to the community to keep them informed.

Core Leader: Janice Barlow, RN, Zero Breast Cancer

National Centers



University of California San Francisco, San Francisco, CA
Director: Robert A. Hiatt, MD, PhD

Michigan State University, East Lansing, MI
Director: Sandra Haslam, PhD

University of Cincinnati, Cincinnati, OH
Director: Robert Bornschein, PhD

Fox Chase Cancer Center, Philadelphia, PA
Director: Jose Russo, MD

Collaborators

- California Dept. of Health Services
- Kaiser Permanente of Northern California
- Lawrence Berkeley National Laboratory
- Marin County Dept. of Health & Human Services
- Roswell Park Cancer Institute
- San Francisco City & County Dept. of Health
- University of Michigan
- Zero Breast Cancer

Community Partners

- Alameda County Dept. of Public Health
- Bay Area Breast Cancer SPORE Advocacy Group
- Bayview Hunters Point Health and Environmental Assessment Task Force
- Breast Cancer Fund

Get Involved

If you're interested in getting involved in the activities of the Center, please contact either Dr. Robert Hiatt, Center Director, or Janice Barlow, the Community Outreach & Translation Core leader.

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at the University of California San Francisco

UCSF University of California San Francisco

B C E R C

Robert A. Hiatt, MD, PhD
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