



The purpose of this project is to develop an educational tool for breast cancer advocates and community members that will promote an understanding as to why mice models are used in breast cancer research. The secondary goal of the project is to develop an outreach plan for evaluation and use of the video in the community. Using a community-based participatory approach, the Bay Area Breast Cancer and Environment Research Center (BABCERC) Community Outreach and Translation Core (COTC) will use the educational video and accompanying tools to work closely with community partners to foster better interpretation and translation of environmental research findings from the biology research project (Project 1) entitled: "Environmental Effects on the Molecular Architecture and Function of the Mammary Gland Across the Life Span."

In the video Dr. Mary Helen Barcellos-Hoff describes the limitations, advantages, and significant improvements in the technology of modeling human breast cancer in mice. She explains why there is not a single mouse model that can mimic all features of breast cancer and how the uniqueness or superiority of one mouse model over another largely depends on the particular aspect of the scientific question and the study's design.

The video and scientific-glossary will be used with community partners and advocates to foster better interpretation and translation of environmental research findings from Project 1. This poster summarizes the video content and the outreach education plan which the COTC will use to facilitate dialogue between researchers, COTC members and community members.

'Of Mice and Women: Modeling Breast Cancer and the Environment': An innovative educational tool to engage the community on why mice models are used in breast cancer research



Bay Area Breast Cancer and Environment Research Center Community Outreach and Translation Core (COTC)

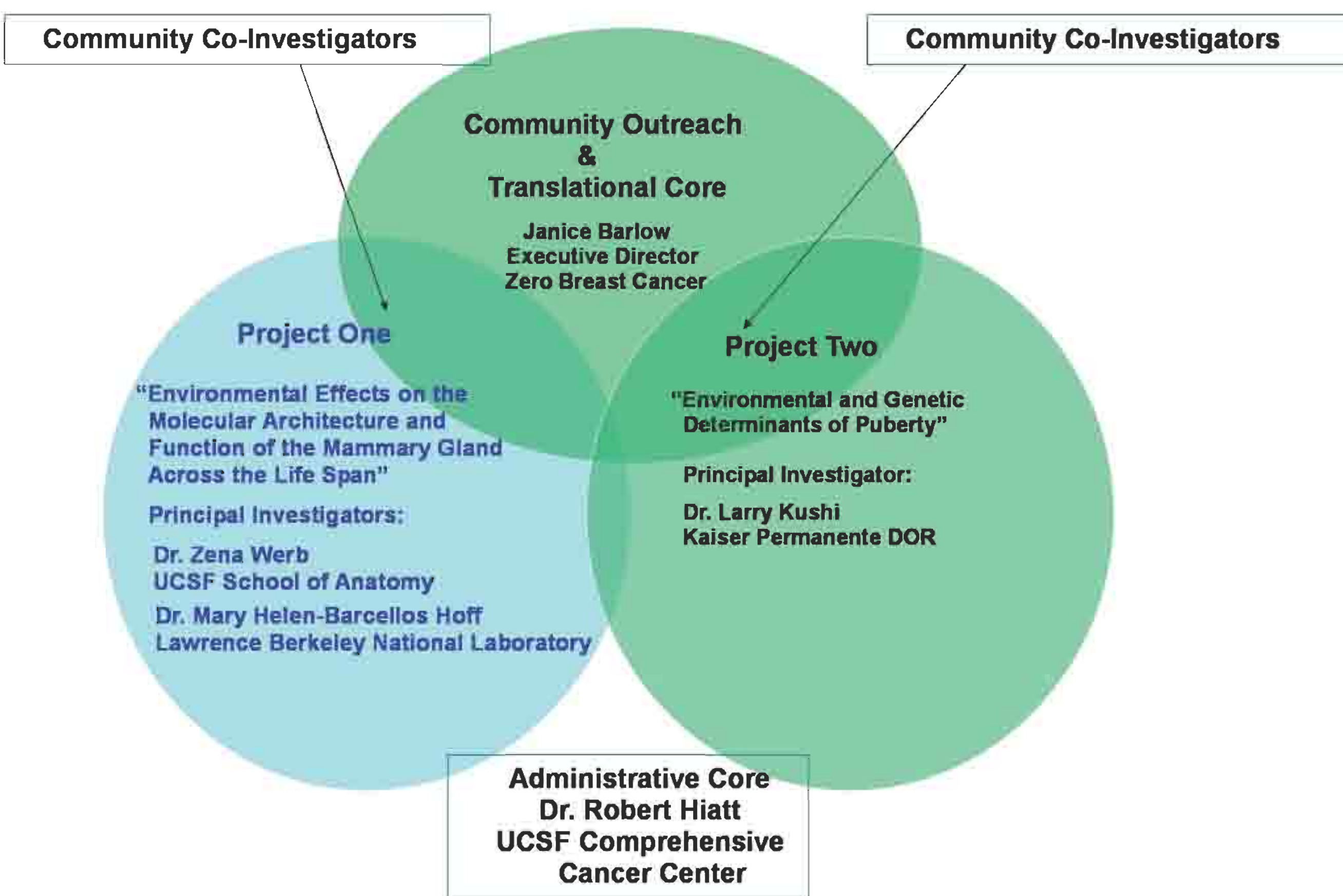
Barcellos-Hoff, M.H.¹, Barlow, J.², Pierce, K.³, Balke, K.⁴, Koblick, K.⁵, Orenstein, F.², Marks, C.⁶, Lee, G.⁷, Johnson, J.²

Lawrence Berkeley National Laboratory¹, Zero Breast Cancer², Bay View Hunters Point Health and Environmental Task Force, San Francisco Department of Health and Human Services³, UCSF Comprehensive Cancer Center⁴, Marin County Department of Health and Human Services⁵, Breast SPORE Advocacy Core⁶, Breast Cancer Fund⁷

BACKGROUND

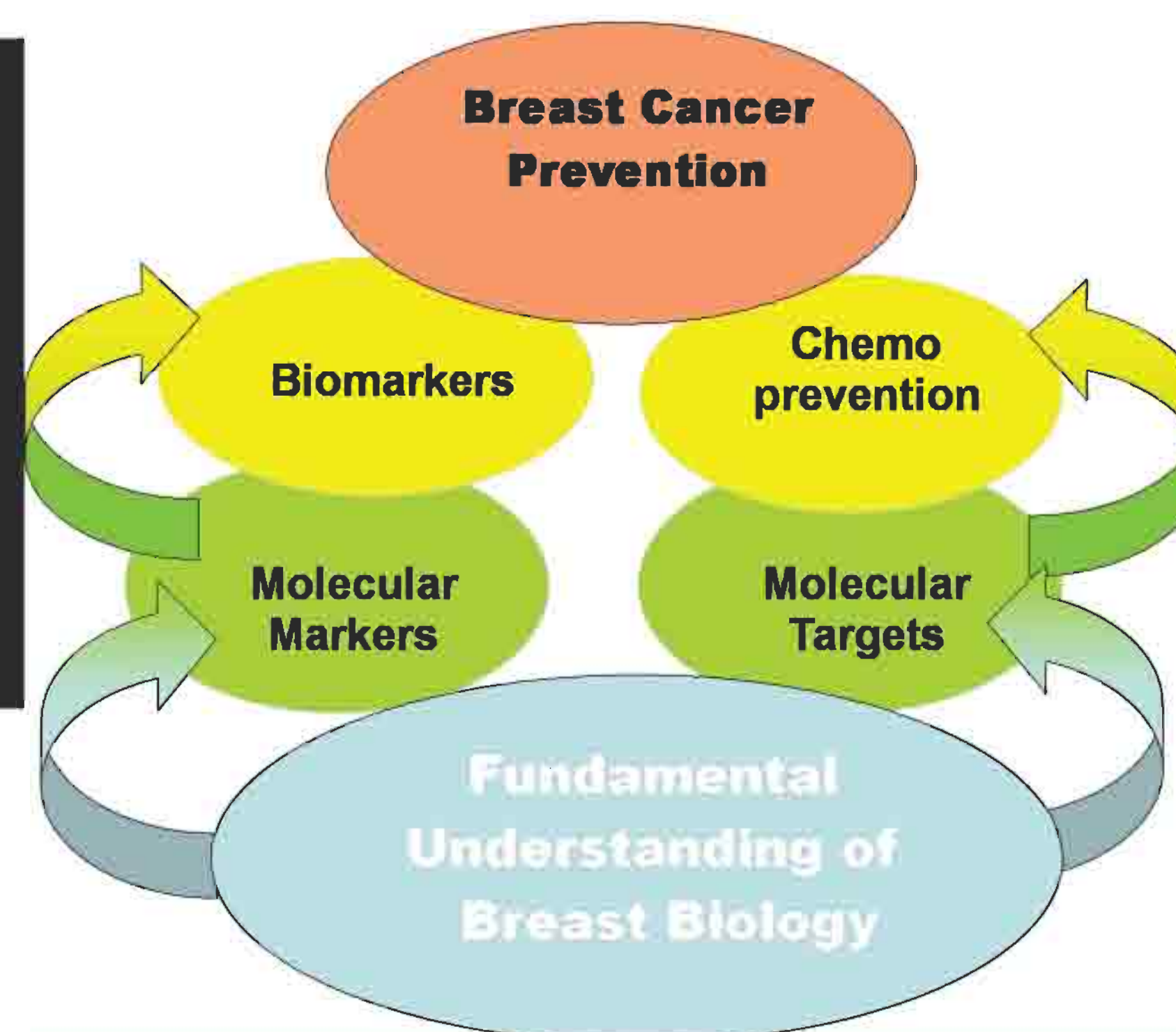
The Bay Area Breast Cancer and Environment Research Center (BABCERC) is one of four centers nationwide investigating environmental exposures and the risk of breast cancer development.

The BABCERC researchers and members of the Community Outreach and Translational Core (COTC) have a shared commitment to community-based participatory research principles.



GOAL

The goal of this project is to engage community members in the research process to facilitate a better understanding of why animal studies are important in identifying environmental exposures that may increase breast cancer risk.



WHY DO WE NEED MICE MODELS OF BREAST CANCER?

Developing breast cancer is not a quick process

- The short reproductive cycle and life span of mice offers invaluable advantages in studying breast cancer, in which there is a lengthy latency period between initial exposure and the development of breast cancer.



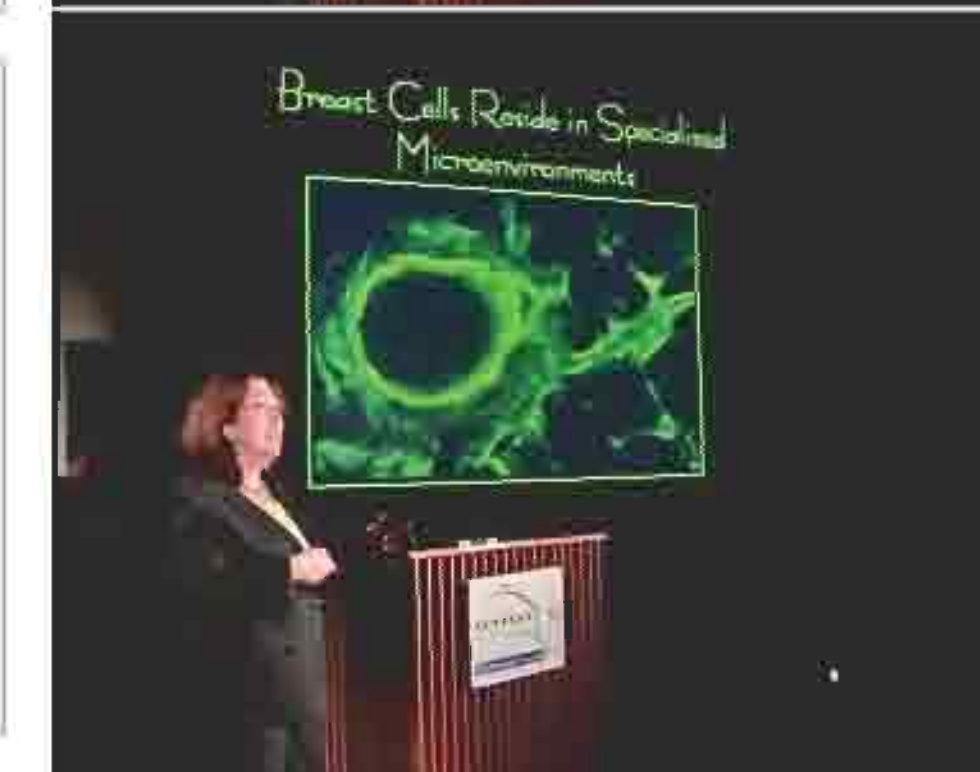
Human breast and mouse mammary gland similarities

- Normal function is to make milk
- Tissues are embedded in a fat pad
- Development after birth
- Depends on signals from the ovaries
- Cells are organized in a ductal tree
- Capable of many cycles of growth and milk production



Human breast and mouse mammary cancer similarities

- Development depends on genetics
- Development depends on signals from the ovaries
- Presence of estrogen receptors can be either positive or negative
- Frequency is modified by life events such as pregnancy and radiation exposure



OBJECTIVES

- To increase public awareness of the importance of mice models in identifying environmental exposures that have an effect on the different stages of mammary gland development
- To develop a tool to aide in the interpretation and dissemination of complex scientific methods and research findings

FORMATIVE EVALUATION

Formative evaluation activities:

- Design a formative evaluation process to include diverse communities in Alameda, Marin and San Francisco counties
- Identify coalitions, community partnerships, and advocates within target communities that would benefit from using the video and glossary
- Develop qualitative tools to assess usability and effectiveness of the video and glossary



"Of Mice and Women: Modeling Breast Cancer and the Environment" video and accompanying scientific glossary were developed by the COTC in joint collaboration with the researchers as an educational tool for breast cancer advocates and community members to facilitate a greater understanding of why mice models are used in breast cancer prevention research.

Funding for the Bay Area Breast Cancer and Environment Research Center is provided by: The National Institute of Environmental Health Sciences and the National Institutes of Health, Grant No.: U01 ES012801

