



Breast Cancer and the Environment Research Centers

Community Outreach and Translation Cores

Fox Chase Cancer Center (FCCC)

Michigan State University (MSU)

Bay Area (BA)

University of Cincinnati (UC)



COTC Objectives

- **Ensure community voice is incorporated**
 - Foster collaboration and trust between scientists and community groups
- **Dissemination of research**
 - Translate findings into meaningful information for the public and policymakers
 - Develop educational key messages based on research findings
- **Evaluation of community involvement in BCERC**



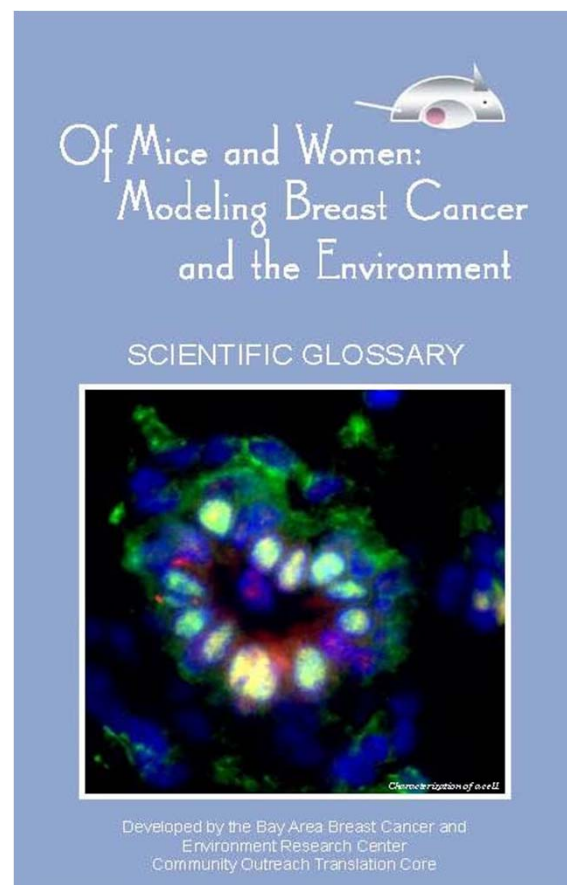
COTC Collaborations With Biology and Epidemiology Projects

- **Community input on selection and framing of research agenda**
 - Prioritization of environmental exposures and input into questionnaire development
- **Nine fact sheets on environmental exposures**
- **Advocates co-authored scientific publications**
- **Lay abstracts of scientific publications**



COTC Collaborations With Biology

- Hands-on Laboratory Training for Advocates
- DVD “Of Mice and Women”





COTC Collaborations With Epidemiology

- **Recruitment and retention of study participants**
 - More than 90% retention at sites with heavy advocate involvement
- **Communicate results and other health and chemical data to participants' families**
 - PFOA
 - PBDEs
 - Phthalates/1,4-dichlorobenzene (moth balls)



Recruitment and Retention Tools/Activities



CYGNET Taking Flight

A Project of the Bay Area Breast Cancer and the Environment Research Center

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

SUMMER 2006

The CYGNET Study: Part of a National Research Effort
By Lawrence H. Kushi, Sc.D.

WELCOME BACK!

It's been a delight and pleasure meeting each of you throughout the year, and we look forward to seeing you again. To keep you informed of our progress, we currently have 367 girls and their families enrolled in the study and hope to reach our study goal of 400 participants in the next couple of months.

With your enthusiastic participation, we've held CYGNET Study Tea Talks in Oakland and San Rafael, where participants learned about the purpose of the study and its broader implications. CYGNET girls had their own set of activities, which included a mini research project, collage art activities, and a hip hop class. Each girl left with a certificate and her own copy of "The Care and Keeping of You: The Body Book for Girls," published by American Girls.

For participants unable to attend the Tea Talk, the discussion revolved around the normal variations in development of girls and what results in differences in age at onset of puberty and breast development. It also explained the CYGNET Study's relationship with the Bay Area Breast Cancer and the Environment Research Center. After meetings with leaders in the breast cancer advocacy community and scientists at the National Institutes of Health (NIH), it became clear that development of the breast, on a molecular or tissue level and in response to various environmental, lifestyle, or genetic exposures, was not well-understood. Thus, the NIH, through the National Institute of Environmental Health Sciences (NIEHS) and the National Cancer Institute (NCI), funded four Breast Cancer and the Environment Research Centers (BCERCs). Please see the map on page 4 for center locations and other collaborating institutions.

Each center includes three key components: an animal study; an epidemiologic study, in which girls will be followed over several years to investigate what may influence age at onset of puberty; and a community outreach and translation core, which ensures that research activities in these centers are responsive to community concerns. The CYGNET Study is one of the epidemiologic studies. These Centers are organized to promote interactions among the investigators, the community members, and scientists at NIEHS and NCI. This is truly a cooperative effort, and your role as one of a projected 1,200 participating families nationwide is central to the overall success of this research program.

The importance of the CYGNET study has been recognized by the media. In late March, a photographer from National Geographic

[Continued on page 4 >>](#)



KAISER PERMANENTE
Division of Research
2000 Broadway St.
Oakland, CA 94612
510-891-3884
510-891-3106, fax





Community Participation





Annual Conference: Early Environmental Exposures

BREAST CANCER AND THE ENVIRONMENT RESEARCH CENTERS	
	Fourth Annual Early Environmental Exposures Meeting November 8-9, 2007 Westin Hotel, Cincinnati, OH
<p>Conference Purpose</p> <hr/> <p>Program</p> <hr/> <p>Abstracts & Posters</p> <hr/> <p>Registration</p> <hr/> <p>Program Committee</p> <hr/> <p>Hotel & Travel</p> <hr/> <p>BCERC</p> <hr/> <p>sponsored by</p>   <p>AVON Foundation</p>	<p>PROGRAM</p> <p>THURSDAY, NOVEMBER 8, 2007</p> <p>7:00- Continental Breakfast & Registration (Gibson Foyer, third level)</p> <p>8:30-9:00 Welcome & Opening Remarks (Presidential Ballroom)</p> <p style="padding-left: 20px;">Session I: Puberty and Normal Mammary Gland Development: Understanding Windows of Exposure Susceptibility and Opportunities for Intervention [ABSTRACTS] (Presidential Ballroom)</p> <p>9:00-9:15 Moderator: <i>Paul Yaswen, PhD</i>, Lawrence Berkeley National Laboratory</p> <p>9:15-9:45 Variations on a Common Theme: Progesterone Regulation of Normal Mammary Gland Development in Humans, Rats and Mice <i>Sandra Z. Haslam, PhD</i>, Michigan State University</p> <p>9:45-10:15 Effects of Environmental Exposures on Mammary Stem cells <i>Mary Helen Barcellos-Hoff, PhD</i>, Lawrence Berkeley National Laboratory</p> <p>10:15-10:30 Break</p> <p>10:30-11:00 Puberty as a Window of Susceptibility to Environmental Toxins <i>Frank Biro, MD</i>, Cincinnati Children's Hospital Medical Center [video] and <i>Mary Wolff, PhD</i>, Mt. Sinai School of Medicine</p> <p>11:00-11:30 Unlocking the Laboratory: Introducing Breast Cancer Advocates to Bench-Top Research <i>Kathy Ball</i> (UC) [video], <i>Janice Barlow</i> (UCSF) [video] & <i>Ann Fonfa</i> (FC) [video]</p> <p>11:30-12:00 Q & A</p> <p>12:00-1:30 Lunch - Lunch with the Experts (Fountain Room, second level)</p> <p style="padding-left: 20px;">Session II: Impacts of Everyday Stressors on the Development of Young Girls [ABSTRACTS] (Presidential Ballroom)</p> <p>1:30-1:45 Moderator: <i>Robert A. Hiatt, MD, PhD</i>, University of California San Francisco</p> <p>1:45-2:15 Psychosocial Studies of Girls and their Families in the Cincinnati Breast Cancer and the Environment Research Center <i>Kim Dietrich, PhD</i>, University of Cincinnati [video]</p> <p>Psychosocial Studies of Girls and their Families in the Breast Cancer and the Environment Research Center <i>Julianna Deardorff, PhD</i>, University of California San Francisco [video]</p>



Poster Session, Annual Meeting
November 2007



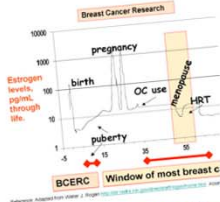
Scientific Session, Annual Meeting
November 2007

website: www.bcerc.org



Dissemination of Educational and Outreach Materials

Onset of Puberty in Girls and Breast Cancer Research
 The National Institute of Environmental Health Sciences (NIEHS) and the National Cancer Institute (NCI) have funded four national Breast Cancer and the Environment Research Centers (BCERC) to study the impact of prenatal-to-adult environmental exposures that may predispose a woman to breast cancer. The Centers' epidemiology studies have enrolled over 1,200 young girls of different racial/ethnic groups at ages 6-7 who are being followed prospectively for five years to investigate environmental, lifestyle and genetic determinants of puberty. CYGENE, the Bay Area Breast Cancer and the Environment Research Center (BABECER) epidemiology study, is conducted by the Division of Research, Kaiser Permanente.



Why is early onset of puberty in girls a breast cancer in later years?
 Early or premature puberty can expand the time a girl's breast budding (thelarche) and first menstruation (menarche) and can expose a woman to high levels of estrogen over her lifetime. This risk is of special concern because numerous studies are providing evidence that entering puberty (thelarche) up to 1 1/2 years early in past generations.



4340 Redwood Highway, Suite
 San Rafael, California 94
 415-507-1949 • www.zerobreastcancer.org
 Zero Breast Cancer leads the Bay Area Breast Cancer Research Center Community Outreach and Research Center is dedicated to finding the cause of breast cancer and to increasing community participation in the research.

This publication was made possible by the Breast Cancer and the Environment (BCERC) program from the National Institutes of Environmental Health Sciences (NIEHS) and the National Cancer Institute (NCI). The contents are solely the responsibility of the critical review of the NIEHS or NCI.



The Mind-Body Connection – Onset of Puberty in Girls

What is puberty?

Puberty is the time period in a young girl's life when a series of hormonal, physiological, cognitive, and socio-emotional changes are simultaneously taking place. This time period begins when a small region of the brain starts to produce sex hormones.



Mount Sinai Community Health Bulletin

Tuna Fish Facts

Staying Healthy in a Changing Environment #3

Are you pregnant, nursing, or thinking of becoming pregnant? Do you have children under 7 years old?

If you answered yes, there is important information about tuna fish you need to know.

Tuna Fish is Good for You, but...

- Tuna fish is good for you. The nutrients found in tuna fish are important for growth and development.
- But... Because of pollution in our oceans, canned tuna fish can contain very small amounts of something called methylmercury.
- What is Methylmercury?** Methylmercury is a substance that can be toxic in high doses. Too much methylmercury can be harmful to developing babies and children. Methylmercury can damage babies' nervous systems, leading to learning disabilities and problems with coordination.
- What Can I Do?** Children under 7 years old and women who are pregnant, nursing, or thinking of becoming pregnant, should follow these guidelines for tuna:

- White tuna (albacore) = No more than 1 can per week
- Chunk light tuna = No more than 2 cans per week

For more information, contact Dr. Luz Claudio or Reeve Chao, (212) 241-1233, reeve.chao@msm.edu or visit www.ctsan.fda.gov/dmsfdmeh3.html

What are some examples of common everyday exposures to phthalates and tips to avoid exposure?

Microwaving food using plastic products.
 Tip: Use only "microwave safe" containers and phthalate-free containers and plastic wrap when microwaving food and/or drinks. Phthalates can leach from food storage containers and food wrap into foods, particularly those foods that are oily or that have a high fat content) on contact and when heated.

Sucking or chewing soft plastic/vinyl products.
 Tip: Use only plastic/vinyl toys and toothbrushes labeled "phthalate-free." If unsure, call the manufacturer. In 1998 the US Consumer Product Safety Commission (CPSC) requested phthalates be removed from soft rattles, pacifiers, bottle nipples, and teething.

Personal care products and vinyl clothing.
 Tip: Read labels. If unsure, call the manufacturer.

Medical situations.
 Tip: PVC is used in a wide range of medical devices, such as your healthcare provider to use phthalate-free medical bags especially during dialysis.

Health effect in laboratory.
 We examined the effects in lab animals. In adult males, phthalates were associated with mental problems.

Puberty in the male reproductive system.
 The natural function of the male reproductive system and genital development is delayed in adult males.

Endocrine disruptor.
 means that when it mimics or blocks hormones involved in development.



Phthalates (THAL-ates) The Everywhere Chemical

What are phthalates?

Phthalates are a family of man-made chemical compounds developed in the last century to be used in the manufacture of plastics, solvents, and personal care products. They are colorless, odorless, oily liquids that do not evaporate easily and do not chemically bind to the material they are added to.

How am I exposed to phthalates?
 Ingestion, inhalation, skin absorption.

Mount Sinai Community Boletín de Salud
Guía Rápida para Plásticos

Permaneciendo saludable en un medioambiente cambiante # 2, junio 2006

Todos los plásticos no son iguales. Algunos son más seguros que otros. Cuando los plásticos hacen contacto con los alimentos y el agua, pueden escapar ciertas químicas. El *Guía del Bolsillo* para los plásticos de Creciendo Saludable puede ser usado mientras hace compras.

Compruebe el símbolo en el fondo del artículo antes de comprar:
Las opciones plásticas más seguras para alimentos y bebidas:

Plásticos que deben evitar:

(Usualmente PVC o vinilo) (Usualmente poliestireno o Styrofoam)

Otros consejos para el uso de plásticos seguros:

- Trate de no usar recipientes plásticos o Styrofoam en el microondas. Si usted puede, es más seguro usar recipientes de cristal o cerámica.
- Tenga cuidado al usar envolturas plásticas en el microondas. Una opción segura es papel encerado.
- Trate de reducir el uso de PVC, vinilo o poliestireno o Styrofoam.

Para más información, contactar a Dr. Luz Claudio o Reeve Chao, (212) 241-1233 reeve.chao@msm.edu
 Mount Sinai Medical Center OTCW 03-0389

GLOSSARY Scientific & Medical Terms

Developed by the Cincinnati Breast Cancer and the Environment Research Center



COMMUNITY ADVOCATES

UNIVERSITY OF CINCINNATI



Communicating the Research

- **Dissemination Research**
 - News media and website analysis
 - Focus groups with mothers and daughters
 - Message testing
 - Survey of study families
- **Key Targeted Audiences**
- **Strategies for Dissemination**



Evaluation of Community Involvement in BCERC

Positive Effects of Community Involvement:

- **Increased community understanding and support of the scientific process**

“I could really see the community benefit from what was found. What did they discover? Is it something we can work on, something that can be utilized for generations to come?”
—Community Member

- **Heightened sensitivity and propriety of the research**

“Is this appropriate for a 7-year-old girl? What’s a mother going to think?”
—COTC Member



Evaluation of Community Involvement in BCERC

Positive Effects of Community Involvement:

- Improved communication and sharing of knowledge between scientists and community advocates

“The truth is scientists have expertise and skill that advocates don’t. But advocates have insight and a perspective that scientists don’t. And, it’s really about mutual understanding. Having both perspectives is really valuable.” -- BCERC researcher



Going Forward

- **Serve as a model for continued community involvement in research**
- **Keep study participants and their families informed**
- **Expand local targeted community dissemination to a national focus**
- **Strengthen relationships with local, regional, and national advocacy organizations**



*“If you want to go quickly
go alone;
if you want to go far
go together.”*

African Proverb