

Looking Upstream for Environmental Links to Breast Cancer
4th Annual Education Forum
Presented by the Cincinnati Breast Cancer and the Environment Research Center
May 17, 2008

Key Points of Forum Presentations

Genetics of Breast Cancer: It's More than Just Your Family History

Jennifer Ruschman

- Genetic factors impact breast cancer risk and treatment for all women, not just those with a family history
- Not all of these genetic factors are created equal
- Questions important for consumers to ask include:
 - How much evidence is there for the impact of genetic factors?
 - How much will a certain genetic factor impact my risk?
 - What would I do differently if I carry a certain genetic factor?

The Sister Study: A Study of the Genetic & Environmental Risk Factors for Breast Cancer

Lisa DeRoo

- The primary aim of the Sister Study is to study environmental, genetic, and biologic risk factors for breast cancer
- New eligibility criteria were established April 2008 so that new enrollees will now be only women who are underrepresented in the study. Therefore, results will apply to all
- Baseline data has been collected on many factors, including genetic markers, stress, obesity, depression, and sleep
- A follow up study has been launched that will look at young-onset breast cancer and characteristics of both the breast cancer survivor and the sister

Dietary Fatty Acids Influence the "Micro Environment" and Breast Cancer Susceptibility

Debbie Clegg

- Preliminary data from this study suggest that fatty acids activate growth pathways similar to the ones activated by estrogen and progesterone
- The type of fat in the diet appears to alter susceptibility to carcinogenesis
- A surprising finding is that high fat fish oil and olive oil increased carcinogenesis rather than decreased it
- The study plans to test the hypothesis that maternal exposure to high fat diets will increase the susceptibility of the female offspring to carcinogenesis

Update of Growing Up Female Study

Frank Biro

- Data collection has been very successful
- Since start of the study, 96% of participants have completed all phone calls for diet recall data and 87% of blood draws have been completed
- Blood specimens are tested for hormones, biomarkers, and DNA/RNA
- Urine specimens are tested for phytoestrogens, phthalates, phenols, and cadmium
- In Cincinnati, most of the girls are in the 8-10 age range and 62% of girls were in puberty at the time of their most recent visit
- Related studies include the Mount Sinai School of Medicine Growing Up Healthy Study and the Kaiser Permanente of Northern California CYGNET Study

Keynote Presentation: Bodies of Evidence: Moving from Science to Action

Nancy Evans

- Says that “women’s bodies are the first environment for the next generation”
- Environmental issues are seeing more media coverage and more attention from Washington DC
- 12 states have enacted Toxic Toys legislation
- A 5th edition of State of the Evidence is anticipated in 2008
- The timing of chemical exposures is important: the “when” may be just as important as the “what”
- The Campaign for Safe Cosmetics calls for the elimination of chemicals linked to cancer, birth defects, and other health problems
- Federal legislation is being proposed that will give the FDA comprehensive authority to regulate chemicals
- Consumers can check the safety of cosmetics they use at www.safecosmetics.org