

The 2012 Breast Cancer and the Environment Research Program - Videos on UCTV

Flame Retardants and Flammability Standards: How Scientific Research Can Inform Policies

<http://www.uctv.tv/shows/Flame-Retardants-and-Flammability-Standards-How-Scientific-Research-Can-Inform-Policies-25031>

Since the 1970's, flammability standards have led to furniture, baby products, and building insulation being treated with flame retardant chemicals. Arlene Blum of the Green Science Policy Institute provides an overview examining how research from disciplines including fire science, biology, toxicology, epidemiology and public health can inform policy and reduce the unneeded use of toxic flame retardant chemicals.

Breast Cancer Extended Environmental Exposures – Windows of Susceptibility: Menopause

<http://www.uctv.tv/shows/Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-Menopause-25015>

One "window of susceptibility" that may represent periods of particular vulnerability to specific chemical, dietary, or psychosocial stresses that influence breast cancer risk is menopause. Speakers in this session are: Marcia Stefanick, and Mary Beth Terry and Marj Plumb.

Breast Cancer Extended Environmental Exposures – Windows of Susceptibility: Puberty

<http://www.uctv.tv/shows/Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-Puberty-25013>

One "window of susceptibility" that may represent periods of particular vulnerability to specific chemical, dietary, or psychosocial stresses that influence breast cancer risk is puberty. Speakers in this session are: Elisa Bandera, Frank Biro and Esther John.

Breast Cancer Prevention at a Young Age: The LEGACY Girls Study

<http://www.uctv.tv/shows/Breast-Cancer-Prevention-at-a-Young-Age-The-LEGACY-Girls-Study-25023>

Studies attempting to identify breast cancer risk factors have focused mainly on genetics and lifestyle in adult women. However, there is growing evidence that young girls may be particularly sensitive to exposures (e.g., ionizing radiation exposure, childhood and adolescent growth, body composition, and physical activity) that are associated with either initiation of breast cancer or protection against breast cancer.

Chromatin Remodeling in the Breast of Parous Women Affects the Window of Susceptibility to Cancer

<http://www.uctv.tv/shows/Chromatin-Remodeling-in-the-Breast-of-Parous-Women-Affects-the-Window-of-Susceptibility-to-Cancer-25026>

Early pregnancy and multiparity are known to reduce the risk of women to develop breast cancer at menopause. The differentiation of the breast induced by the hormones of pregnancy is thought to play a major role in this protection. Jose Russo, Fox Chase Cancer Center, examines the mechanism mediating the protection of the breast conferred by full term pregnancy.

Breast Cancer Extended Environmental Exposures – Windows of Susceptibility: In Utero

<http://www.uctv.tv/shows/Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-In-Utero-25012>

One "window of susceptibility" that may represent periods of particular vulnerability to specific chemical, dietary, or psychosocial stresses that influence breast cancer risk is in utero. Speakers in this session are: Suzanne Fenton, Shuk-mei Ho, Shanna Swan and Banita Bailey.

Reprogramming Breast Cancer Risk in Utero via Endocrine Disruptor and Dietary Fat Interaction

<http://www.uctv.tv/shows/Reprogramming-Breast-Cancer-Risk-in-Utero-via-Endocrine-Disruptor-and-Dietary-Fat-Interaction-25018>

Shuk-mei Ho, Director of the Center for Environmental Genetics at the University of Cincinnati, is internationally recognized for her expertise in the role of hormones and endocrine disruptors on disease development. She explores breast cancer risk in utero. She explores studies that suggest prenatal exposure to BPA and the HFB displayed complex interaction to affect mammary gland development, DMBA-susceptible window, tumor incidence and tumor growth in a complex, non-monotonic manner.

Assessment of Basic Knowledge and Interest in Teens and Adults Regarding the Impact of the Environment on Cancer Risk Through Epigenetics

<http://www.uctv.tv/shows/Assessment-of-Basic-Knowledge-and-Interest-in-Teens-and-Adults-Regarding-the-Impact-of-the-Environment-on-Cancer-Risk-Through-Epigenetics-25020>

Banita Bailey, Pink Ribbon Girls of Cincinnati Ohio, discusses a survey of friends, survivors, supporters and families of PinkRibbonGirls.org with respect to their interest in, and knowledge of, the potential for environmental factors to alter the way genes are expressed. The goal is to develop relevant materials to help individuals make better life-choices that translate into greater health for self, and offspring.

Pregnancy, Obesity, and Basal-like Breast Cancer Microenvironment

<http://www.uctv.tv/shows/Pregnancy-Obesity-and-Basal-like-Breast-Cancer-Microenvironment-25025>

Epidemiologic and experimental data have shown that a full term pregnancy reduces breast cancer risk. However, recent studies have suggested that while full term pregnancy does reduce risk for estrogen receptor and luminal breast cancers, pregnancy may actually increase risk of more aggressive basal-like breast cancers. There are complex relationships between age, race, parity, and obesity in observational human datasets making it difficult to translate these findings into public health messages. Melissa Troester, University of North Carolina Chapel Hill, addresses tumor heterogeneity, focusing specifically on the basal-like breast cancer subtype and the microenvironment changes that promote this breast cancer subtype during a vital window of susceptibility, the post-partum period.

Mycoestrogens in Girls' Growth and Development

<http://www.uctv.tv/shows/Mycoestrogens-in-Girls-Growth-and-Development-25021>

Elisa V. Bandera, MD, PhD, The Cancer Institute of New Jersey, explains that despite extensive research and interest in endocrine disruptors, the role of estrogenic mycotoxins or mycoestrogens, such as zearanol and zearalenone, has received little attention in human studies. Findings suggest that ZEA mycoestrogens may exert anti-estrogenic effects similar to those reported for isoflavones.

Puberty in Contemporary Girls, with Health and Disease in Adult Women

<http://www.uctv.tv/shows/Puberty-in-Contemporary-Girls-with-Health-and-Disease-in-Adult-Women-25022>

Examine the physical changes that occur with puberty, and how these changes are impacted by earlier development, and, in turn, impact risk of development of adult disease. There has been an increasing awareness that early life events may impact developmental trajectories and subsequent later health. The adolescent years have received little attention, despite important behavioral, cognitive, and physical developmental changes that occur during this period.

Prenatal Environmental Exposures: Lifelong Impact on Mammary Gland Development and Function

<http://www.uctv.tv/shows/Prenatal-Environmental-Exposures-Lifelong-Impact-on-Mammary-Gland-Development-and-Function-25017>

Suzanne E. Fenton, National Institute of Environmental Health Sciences, focuses on the role of environmental chemicals in breast development and function in utero.

In Utero Phthalate Exposure Alters the Developing Reproductive System in Males: Lessons from Toxicology

<http://www.uctv.tv/shows/In-Utero-Phthalate-Exposure-Alters-the-Developing-Reproductive-System-in-Males-Lessons-from-Toxicology-25019>

The reproductive toxicity of phthalates has been known since the 1990's. Shanna Swan, Mount Sinai School of Medicine, has worked for over twenty-five years to understand the threats posed by chemicals to our environment and our health, and, when necessary, to develop new paradigms to assess their risks. Findings warrant concern that low dose prenatal exposure to anti-androgenic chemicals may affect human male reproductive health.

Breast Cancer Extended Environmental Exposures – Windows of Susceptibility: Pregnancy

<http://www.uctv.tv/shows/Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-Pregnancy-25014>

One "window of susceptibility" that may represent periods of particular vulnerability to specific chemical, dietary, or psychosocial stresses that influence breast cancer risk is pregnancy. Speakers in this session are: Melissa Troester, Jose Russo and Janice Barlow.

NIEHS and the Future of Breast Cancer Research – Breast Cancer Extended Environmental Exposures – Windows of Susceptibility

<http://www.uctv.tv/shows/NIEHS-and-the-Future-of-Breast-Cancer-Research-Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-25011>

Linda Birnbaum, Director of the National Institute of Environmental Health Sciences, discusses the future of federally conducted and supported research on breast cancer and the environment.

Breast Cancer Extended Environmental Exposures – Windows of Susceptibility: Flame Retardants – Translation of Research into Public Policy

<http://www.uctv.tv/shows/Breast-Cancer-Extended-Environmental-Exposures-Windows-of-Susceptibility-Flame-Retardants-Translation-of-Research-into-Public-Policy-25016>

Arlene Blum describes flame retardants and flammability standards and how scientific research informs policies. Then a panel explores how public policy is formed based on research. Speakers in this session are: Arlene Blum, Michael Lipsett, Liza Gross, and Mark Leno.

Menopause – A Window of Opportunity or Susceptibility: Hormone Therapy and Breast Cancer

<http://www.uctv.tv/shows/Menopause-A-Window-of-Opportunity-or-Susceptibility-Hormone-Therapy-and-Breast-Cancer-25027>

Marcia Stefanick, Stanford University, explores the role of menopausal hormone therapy on breast cancer risk. She discusses the different hormonal replacement treatments available and the risks associated with long term use.

Early Life Factors and Reproductive Timing: Evidence on Menarche and Menopause

<http://www.uctv.tv/shows/Early-Life-Factors-and-Reproductive-Timing-Evidence-on-Menarche-and-Menopause-25028>

Mary Beth Terry, Columbia University, explains that accumulating evidence from both human population and animal studies supports a role for the prenatal and early life environment in influencing breast cancer risk. Timing of menarche and menopause are also important predictors of breast cancer

risk. Prenatal and early life factors that have been associated with breast cancer risk have not always been associated with age at menarche and intermediate markers of breast cancer risk like breast density in the same way.

Xenoestrogens in Relation to Mammographic Breast Density – a Marker of Breast Cancer Risk – in Postmenopausal Women

<http://www.uctv.tv/shows/Xenoestrogens-in-Relation-to-Mammographic-Breast-Density-a-Marker-of-Breast-Cancer-Risk-in-Postmenopausal-Women-25029>

Bisphenol-A (BPA) is widely accepted as an endocrine disruptor, but evidence is lacking to establish BPA as a breast carcinogen. Human studies of the health effects of BPA are scarce, and studies of BPA are largely limited to laboratory studies. BPA is present in plastic consumer products including canned food linings and #7 polycarbonate plastics. According to recent NHANES data, human exposure is widespread. Amy Trentham-Dietz, University of Wisconsin, describes the results of her study to evaluate the association between BPA exposure and breast cancer risk in adult women. Relations between the three phenols and breast density are presented as well as relations between several sex hormones including estradiol with breast density. Results provide preliminary evidence to guide additional studies on the effects of xenoestrogens like BPA on the risk of breast cancer.

Reflections (on Session 4 Menopause)

<http://www.uctv.tv/shows/Reflections-on-Session-4-Menopause-25030>

Marj Plumb, DrPH, looks back on research presented in an earlier session regarding Korenman's suggestion in 1980 that puberty and perimenopause were two "windows" of maximum breast cancer inducibility by environmental carcinogens. The previous session focused on several exposures that are of particular relevance to peri- and postmenopausal women including obesity, postmenopausal hormone use, and environmental chemicals. The potential connections between the different windows of susceptibility are also addressed.

Michael Lipsett

<http://www.uctv.tv/shows/Michael-Lipsett-25035>

Flame retardants and flammability standards have informed public policies.

Money to Burn: Following the Flame Retardant Money Trail

<http://www.uctv.tv/shows/Money-to-Burn-Following-the-Flame-Retardant-Money-Trail-25036>

Reporter Liza Gross investigates spending by flame retardant industry groups to forestall laws in California. The retardant chemicals accumulate in human tissue and breast milk, and have been linked to a variety of health issues in children and women.

Mark Leno

<http://www.uctv.tv/shows/Mark-Leno-25037>

California State Senator Mark Leno discusses his efforts to eliminate the use of toxic flame retardants through California bill TB117-2013, creating an alternative furniture flammability standard that would give consumers the choice to purchase furniture that is fire-safe and nontoxic.

Reflections (on Session 3 Pregnancy)

<http://www.uctv.tv/shows/Reflections-on-Session-3-Pregnancy-25034>

Executive director of Zero Breast Cancer, Janice Barlow, RN, discusses the impact of pregnancy on the body and how it impacts breast cancer risk.