



Graduate Cancer Community
@ Illinois Presents:
Dr. Karin Rosenblatt

Monday March 2
12:00 - 1:00 p.m.

Medical Sciences Building Auditorium
506 South Mathews Avenue
Urbana, IL 61801

Accidental Exposure to a Potential Endocrine Disruptor and Breast and Prostate Cancer in Michigan

In 1973-74 cattle feed in Michigan was contaminated by polybrominated biphenyls (PBB – a brominated flame retardant) and exposure to humans occurred by eating milk and meat products from the contaminated animals. A cohort study of potentially exposed subjects: those that lived on quarantined farms (where all the animals had to be killed because of high levels of PBB), lived on non-quarantined farms (where the exposure was not high enough for the animals to be killed), and those receiving food from quarantined farms was established in 1976 to 1978 and followed until 2004 to determine female breast and prostate cancer risk. We identified 41 breast cancer cases and matched them to 202 age-matched controls using a nested case-control design. We found a two-fold non-significant increase in the odds of having breast cancer among women with PBB concentrations ≥ 10 $\mu\text{g/L}$ compared to women with PBB levels at or below the limit of detection (OR=2.60, 95 % CI: 0.93–7.27). The nested case-control study of prostate cancer included 80 cases and 320 controls. There was a non-significant reduction in risk of prostate cancer in men with higher serum PBB levels. There was a significant increase in risk for prostate cancer in men who lived on a low level (OR= 3.24, 95% CI=1.24-8.43) or quarantined farm (OR=4.34, 95% CI=2.19-8.58) compared to men who received food from quarantined farms. This effect was stronger in men over age 75. PBB may have increased the risk of breast cancer, but this may have been due to chance. It did not increase the risk of prostate cancer. The increased risk of prostate cancer in farmers may be due to pesticide exposure or to living to older ages.

Lunch will be provided for seminar attendees. If you would like to know more about our program or future events, feel free to contact us at cancer-community@illinois.edu or visit <http://publish.illinois.edu/cancercommunity/>.

This seminar is part of the Graduate Cancer Community @ Illinois program. Seminars are supported through funding provided by the Graduate College Focal Point initiative. For more information about cancer initiatives on the Illinois campus, please visit <http://cancer.illinois.edu>.