

S14. Retinoids in breast cancer prevention

B. Bonanni*

European Institute of Oncology, Divisione di Prevenzione e Genetica Oncologica, Milano, Italy

Preclinical models suggest that retinoids inhibit mammary carcinogenesis. Induction of apoptosis is a unique feature of fenretinide, the most studied retinoid in clinical trials of breast cancer chemoprevention due to its selective accumulation in breast tissue and its favorable toxicological profile. In a phase III breast cancer prevention trial, fenretinide showed a very strong trend of reduction of incidence of second breast malignancies

in premenopausal women, which was confirmed by the fifteen years follow up. Interestingly, ovarian cancer incidence appeared reduced during treatment in the same trial. This warrants further research on fenretinide mechanisms of action and potential efficacy and provides the rationale for a phase III primary prevention trial in young women at high risk for breast cancer.