vs 30 controls and (iii) 18 pathologists/anatomists exposed to formaldehyde vs 18 controls. Centromere-negative micronucleus (C-MN), centromere-positive micronucleus (C+MN), micronucleus containing only one centromere (C1+MN) and micronucleus containing more than one centromere (Cx+MN) were scored.

Results: In untreated cancer patients, (i) about 70% of the MN were C+MN, (ii) about 50% of the MN were Cx+MN, and (iii) about 66% of the C+MN were Cx+MN. In welders, (i) about 50% of the MN were C+MN, (ii) about 25% of the MN were Cx+MN, and (iii) about 50% of the C+MN were Cx+MN. In pathologists/anatomists (i) about 78% of the MN were C+MN, (ii) about 50% of the MN were Cx+MN and (iii) about 66% of the C+MN were C1+MN.

Conclusions: Most of the MN were centromere positive whatever the population was. In untreated cancer patients, one-half of the MN and two-thirds of the C+MN were Cx+MN suggesting that most of the aneugenic events leading to micronucleus formation involve several chromosomes per micronucleus. In welders, aneugenicity was partly responsible for the higher MN frequency in exposed subjects than in controls and the groups did not differ in MN content. In contrast, formaldehyde exposure leads to an increase in the C1+MN only, suggesting that aneugen mechanisms involve only one chromosome per micronucleus. Our results suggest that aneugenic events leading to centromeric micronuclei in cancer patients and workers occupationally exposed to mutagens/carcinogens arise from different pathways of C+MN formation.

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Bone mass density and subsequent risk of prostate cancer

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To test the hypothesis that high bone mass density, a potential marker for cumulative exposure to androgens, insulin growth factors, calcium and vitamin D intake, is associated with a higher risk of prostate cancer. 558 men older then 60 years were followed through record-linkage of cancer registry, after a measure of bone mass density by densitometry in four different sites (lumbar spine L2-L4, Ward's triangle, trochanter, femoral neck). All incident cases of prostate cancers were confirmed histologically. Overall 18 cases of prostate cancer were observed cf 14.5 expected (standardized incidence ratio (SIR) = 1.24, 95 percent confidence interval (CI=0.74-1.65). The SIR increased with increasing bone mass density showing a significantly risk of 42% (Ward's triangle) to 66% (lumbar spine, trochanter, femoral neck) for men who were at the higher bone mass density, comparatively to men who were at the lowest bone mass density.

Our results are consistent with the hypothesis that men with high bone mass may be at an increased risk of prostate cancer. Although the biological mechanisms underlying this relation are not understood, cumulative exposure to high levels of androgens, IGF-I or calcium and vitamin D intake may be involved.

P33

Preoperative predictability of ovarian malignancy using risk of malignancy index

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Topic: Preoperative predictability of ovarian cancer using risk of malignancy index. Aims: To determine the sensitivity, specificity and the predictive powers of using risk of malignancy index in the prediction of ovarian cancer in women with adnexa masses before surgical operation.

Method: This is a case-controlled study involving all women with suspected adnexa masses at the Friedrich-Alexander University Frauenklinik, Erlangen, Germany from January 2002 to September 2005. Their case rocords were retrieved from the medical records and information were extracted and entered directly into SPSS software. The data were validated and computed using the same software to determine the sensitivity, specificity and the positive and negative predictive values of risk of malignancy index in determining which of the adnexal masses was malignant before surgery.

Results: This will follow as soon as we have been able to complete our analysis.

Chemoprevention (experimental and clinical)

P34

Natural cloudy apple juice and polyphenol-enriched apple juice extract prevent intestinal adenoma formation in the APCMin/+ model for colon cancer prevention

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Apples and apple juice are known to contain a variety of phenolic compounds with potential cancer preventive potential. The aim of the present study was to investigate cancer preventive efficacy of cloudy apple juice (CAJ) in comparison with a polyphenol-enriched apple extract (PAE) in the C57BL/6-ApcMin (ApcMin) mouse strain commonly used in cancer chemoprevention studies. Groups of seven-week-old male mice (n=12 each) received either CAJ (containing 90 mg/L polyphenols), PAE (0.2% in drinking water, containing 600 mg/L polyphenols) or water ad libitum for 10 weeks. Average daily CAJ intake was significantly higher than water or PAE intake (average (avg) in mL/animal/day; control: 2.7, CAJ: 3.6, PAE: 2.8), concomitant with a slight decrease in daily food intake in both intervention groups (avg in g/animal/day control: 3.7, CAJ: 3.3, PAE: 3.5), but there was no difference in average body weights (bw avg in g after 10 weeks of intervention; control: 25.1, CAJ: 25.4; PAE: 25.5). Importantly, CAJ and