Breast, uterine or colon tissue is removed, and DNA extracted analysed for [^{14}C]. Initial data indicate that although tamoxifen is reaching the uterine tissue, no DNA adducts can be detected. A further study with an increased specific activity is being undertaken.

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VI.5 Tamoxifen-DNA Adducts in Breast Cancer Patients

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TAMOXIFEN IS an important anticancer agent used in a long-term adjuvant therapy of breast cancer. A side-effect of treatment is the risk of secondary cancer in uterine endometrium. An estimate of 10% (100 patients/year) of endometrial cancer is diagnosed in Sweden in patients who have received tamoxifen earlier in their life. We have recently developed a ^{32}P-postlabelling method, applying high-performance liquid chromatography (HPLC) and radioactivity detection for a sensitive and reproducible measurement of tamoxifen adducts in humans [1]. Using the method we demonstrated DNA adducts of tamoxifen in total white blood cell and endometrial cell DNA in blinded studies [2, 3]. The measured levels of adducts were 5/10^9 nucleotides in white blood cells and one-half in endometrial DNA. There have been further methods development and further analysis from other human and animal tissues. Additionally, attempts have been made to identify specific adducts with the help of standard compounds.

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VI.6 Detection of DNA Adducts in the Human Endometrium: a Lack of Evidence

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