

cytostatic effects of the EMFs on cancer cells are not related to their thermal effects but are exerted via temperature-independent actions(8,9,10).

In the present study the effects exerted by low intensity radiofrequency static electromagnetic fields, on a sarcoma cell line , its tumorigenic effects in Wistar rats, were investigated.

## **Materials & Methods**

**Production of malignant (sarcoma) [MC] and smooth muscle cells (SMC).** In this study, the malignant cells were isolated from selected sarcoma described tumors of Wistar rats. Fifteen (7 males and 8 females) Wistar rats, belonging to the fifth generation of a certain couple, 60 days old, were subcutaneously injected by 1 ml of 3,4-Benzopyrene solution (B[a]P) in Tricapryline at a final dose of 10,08 mgr/ml in their right scapula. . After 110 days (maximum 135 days), all the animals developed malignant tumors at the site of injection. All the tumors were histologically identified as leiomyosarcomas. The tumors were surgically removed and cut under aseptic conditions into pieces of 0.5cm size. Each pieces was placed immediately in cold Ringer's solution, then sliced down again to smaller pieces of 1 mm size and placed into 5 ml DMEM solution which contained small quantities of trypsin. The pieces in the solutions were kept at 37° C for 4 hours, with gentle mixing every15 minutes. Then they were centrifuged at 900 rpm for 10 minutes and the supernatant was rejected. The remained cells were resuspended in DMEM+10%FBS solution and seeded in plastic coated dishes of 52 mm size and subcultures of these cells were made, and were submitted to histological examination.