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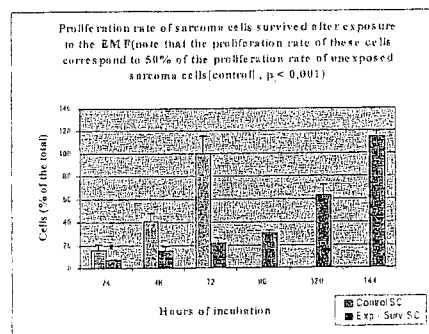
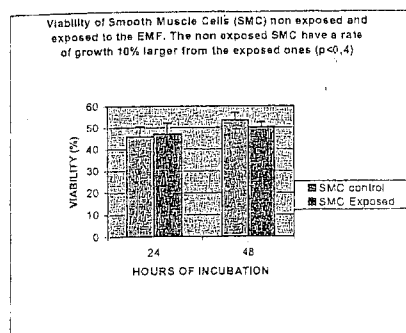
## EFFECTS OF LOW INTENSITY STATIC ELECTROMAGNETIC FIELDS (SEMF) ON SARCOMA CELL LINES IN VITRO.

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In this study we have investigated the effects of Static Electro-Magnetic Fields (SEMF) on sarcoma cells, isolated from tumors of Wistar rats. The tumors were developed by 3,4-benzopyrene (B[ $\alpha$ ]P) injection in the rats. The cancer cells were exposed to SEMF for 45 minutes, applying frequencies between 10 kHz to 1 MHz, of the radiowave spectrum. During a 24-hours period after cancer cell exposure to SEMF, no inhibition of cell proliferation appeared. In contrast, at the end of 48 hours incubation time, the cancer cell proliferation was dramatically decreased at a level of 98%.



In addition the survived sarcoma cells, which are 2% of the total cell population, after its exposure to SEMF, showed a significant decrease of proliferation, under the same culture conditions. These cells were then exposed once again to SEMF for 45 minutes (totally 4 sessions of exposure) and tested using a Flow Cytometer. It was found that a great percentage of these cells (45%), doubly exposed to SEMF, was apoptotic and only a small percentage of them was found under mitosis (2 %). Additionally, the cells were counted and tested, by using an aggregometer for their ability to aggregate the platelets (an indicator of their metastatic potential) and they didn't show any difference, compared to the sarcoma cells not exposed to SEMF (control cells).