exposure to electromagnetic fields may reduce immuno reactive p53 expression in tumor bearing mice (19), which has been found increased in BaP-induced sarcomas in Wistar rats (26). The lower sensitivity after the fourth exposure of the sarcoma cells to EMFs compared to their sensitivity after the first exposure indicates that the sarcoma cells may develop some type of resistance .

Our finding that the electromagnetic frequency pattern of the sarcoma cells changed after their exposure to EMF and resembled to that of smooth muscle cells, may possibly indicate that some type of sarcoma cell differentiation could take place.

The above is supported by results obtained by the animal groups inoculated with EMF-exposed and non-exposed sarcoma cells. Our data, indicate that although EMF –exposed, and non-exposed sarcoma cells induce tumor development, when inoculated to Wistar rats in 100% of the animals, there is a significant prolongation of the survival time of the animals bearing tumors due to inoculation of EMF-exposed sarcoma cells(experimental group) in comparison to those bearing tumors from non-exposed sarcoma cells (control group- $p< 0.0...$). Similar results were observed in tumor growth rate between the two groups. There is also a significant reduction in lung metastases in the experimental group (EG) compared to the control group(CG), [in 40% and 70% of the animals ,correspondingly]. The above indicate that EMF – exposed sarcoma cells manifest a milder malignat phenotype when inoculated to animals, in comparison to non-exposed sarcoma cells. According to our knowledge, anticarcinogenic effects of EMFs on animal models have also been investigated (7,) , but this is the first experiment investigating the in vivo properties of EMF-treated malignant cells , in animal models.

Nevertheless, the sarcoma cells exposed to EMF seems to retain in a way their "metastatic potential" as they can still efficiently aggregate the platelets, but in vivo