

Subrata Biswas, Effect of sinusoidal magnetic field on K562 and hybrid cell lines, M. Tech. Thesis, Department of Electrical Engineering, Indian Institute of Technology Bombay, 1991

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Abstract- Effect of low frequency (<500 Hz) weak magnetic fields (<1 mT) on the growth of Hybridoma and non secretory cells in culture were studied. The effect on the growth of a non-secretory cell line was essentially the same (with some qualitative difference) as on that of the secretory cells. Prolonged plateau phase in the growth cycle of exposed population (as compared to the control) indicates longer survival of cells in this group. Ultrastructure of exposed secretory cell line have shown more active form of mitochondria as compared to control population. Protein in the culture supernatants in exposed population showed some qualitative alteration suggesting, possibly, some effect(s) of low frequency weak magnetic field on the secretory function of the exposed cells compared to the control.