Effect of Static Magnetic Field on bcl-2 and hsp70 expression in Zebrafish, *Danio rerio*

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Abstract

An increasing number of evidence showed that Static magnetic fields (SMFs) are capable of changing apoptosis. Here, this research was carried out to evaluate the influence of static magnetic field on the rate of bcl-2 and hsp70 expression in muscle cells of Zebrafish, *Danio reri.* Fish were exposed to 70mT static magnetic field for 2 weeks and after that, sampling of fish was done. The investigation of gene expression of bcl-2 and hsp70 in freshly isolated cells indicated that these genes are modulated by SMF exposure in the experimental conditions used. Based on the molecular data analysis, there was significant difference in bcl-2 and hsp70 expression between control and treatment fish ($p<0.05$). So, the SMF intensity applied, resulted in different modulation of bcl-2 and hsp70.

Keywords: Static Magnetic Fields (SMF), Apoptosis, Gene Expression, Zebrafish