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Physiological Effects of Static Magnetic Fields

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Static magnetic fields (SMF) were shown to induce a wide range of biological responses. In this presentation we will give account on recent progress. We shall look for evidence supporting the following hypotheses.

Hypothesis 1 *There is at least a single SMF configuration, exposure to which induces a statistically significant analgesia in the writhing test in mice* [1].

Hypothesis 2 *This SMF must be strong and strongly inhomogeneous* [1].

Hypothesis 3 *The background mechanism of action lies in the excitation of the endogenous opioid system, capsaicin-sensitive fibers mediate the effect* [2],[3].

Hypothesis 4 *Not only analgesia, but other phenomena can be observed* [3],[4].

On the basis of these findings, we may raise the possibility of using magnetic resonance devices for therapy [5].

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- [5] J. László and K. Gyires *Life Sciences* 84/1-2, (2008), p. 12.