Modification of the disease state by the in-vivo non-invasive application of electromagnetic fields

Lucas Portelli*[(1)], Frank Barnes[(1)]
(1) University of Colorado, Boulder, CO, 80309, http://www.colorado.edu

Anecdotal data that supports the potential of electromagnetic fields to treat pathogenic diseases (Dengue Fever, AIDS, urinary tract and eye bacterial infections) by the application of time-dependant signals, in-vivo, on human and animal patients has been analyzed. The signals were applied non-invasively by the use of a couple of electrodes on the subject´s wrist and/or by the use of a coil(s). Both exposure systems have been applied individually; during overlapping periods and at the same time and its effects have been recorded to happen within the first few applications. The facts that what has been mostly observed is that no apparent side affects but the remission of the pathogenic disease symptoms and that this approach appears to be effective to treat several fundamentally different ailments weaken the possibility of direct inactivation of pathogens as being the main cause of this technique's effectiveness. Recent literature and our experiments indicate a range of exposure times and powers needed for the inactivation of bacteria and pathogens in general. These parameters differ significantly from the parameters that have been utilized for the in-vivo therapy. The direct or indirect activation or regulation of the functionality of the immune system appears to best explain the anecdotal data and at the same time it separates this approach from being catalogued as a panacea. The mechanism of action of electromagnetic fields on biological systems is not yet understood, however, a literature review and our own experiments point to an immune activation hypothesis. Relevant data from our experiments on the mechanism of action will be presented.