

## **Abstract for Frankfurt/Mainz**

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### **Successful healing and Anti-Aging with specific low frequency electromagnetic fields**

*There is no longer any doubt that of electromagnetic fields of specific frequencies can have enormous healing power. After successful treatment of osteoporosis and other health disorders, therapists around the world are curious about the scientific basis for these phenomena.*

Resonance is the key to electromagnetic healing. Resonance is defined as the tendency of any object to oscillate or vibrate or spin at maximum amplitude under the influence of certain frequencies, known as the object's resonant or natural frequencies. Each tissue, each cell, each molecule, each atom and each sub-atomic particle will resonate with electromagnetic fields of specific frequencies. This presentation will summarize the basic physics involved in resonance, which provides a simple explanation for the remarkable healing effects of specific frequencies. Special emphasis will be given to electron and proton spin resonance, which provides the basis for MRI or magnetic resonance imaging.

MRI is based on the discovery that electromagnetic frequencies that match the resonant spin frequencies of electrons and protons will cause those particles to spin in certain ways. Water molecules are the most abundant molecules in the human body, and water molecules dissociate to give rise to hydrogen nuclei, otherwise known as protons. Electromagnetic fields are created by electric and magnetic fields that vary in strength between zero and some positive value, then back to zero and then to a negative value, back to zero, and so on. As such oscillating fields are imposed on electrons and protons, the axes of the spins of these particles wobble or precess. The degree of this precession varies as the field oscillates, and the precession is maximal when the frequency of the signal exactly corresponds to a particular value known as the Larmor frequency. At the Larmor frequency there is maximal energy transfer from the field to the spinning particle; resonance is maximized. This physics principle has been incorporated into the MRI since 1970.

When the oscillating field drops to zero, the precession ceases. The particles undergo a transition: the energy from the spin is converted into light that is emitted in the form of excited photons. Since these photons are emitted by biomolecules, they are called biophotons. When biophotons are emitted by large numbers of protons in highly ordered tissues, they are coherent biophotons, This means they are like the light produced by a laser. Coherent biophotons have been studied extensively in Germany by Fritz Albert Popp and his colleagues. Biophotons are packets of energy that can persist in the tissues and that can be absorbed by molecules, and thereby activate molecular processes. The coordinated actions of these coherent biophotons produce a high degree of order, trigger cellular repair processes and neutralize free radicals that are thought to cause the various diseases of aging and senescence.