THE PHYSICAL NATURE OF THE BIOLOGICAL SIGNAL, A PUZZLING PHENOMENON: A ROLE FOR WATER ?

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One of the accepted paradigms is that molecules interact with target systems via various physicochemical forces. These forces may involve vibrational modes in either the molecule or target system. For instance, the action of a protein involves interaction with its receptor, to trigger a cascade of biochemical events that activate biological functions. Here, the presence of the molecule is necessary. One working hypothesis, based on the pioneer work of Jacques Benveniste, is that molecules could communicate with each other, exchanging information without being in physical contact and that at least some biological functions can be mimicked by certain energetic modes characteristics of a given molecule. If so, a number of questions arises, for instance: 1) what molecule vibration modes are efficient ; 2) what do molecule vibration modes sound like (identification of measurable signals); 3) how can these signals be used to mimic some of the biological functions of a molecule without its physical presence; 4) what is the function of water in all of this ?.

We will describe one approach/ method for producing an effect of molecules on different responsive biological systems and show that at least some biologically active molecules emit signals in the form of electromagnetic radiation of less than 44 kHz that can be recorded and digitized for instance on a computer's hard drive. The digitized signals can be replayed (through a sound card) to target cells, water, or organs in a manner that seems specific to the source molecules.

Clearly, the far-reaching implications of these observations require numerous, repetitive experimental testing to rule out overlooked artifacts. Also important is to have the experiments repeated by other groups and with other models to explore the generality of the effect. In this regard, some recent emerging data will be examined.

Finally, we will discuss the current state of knowledge and envision different hypotheses to unveil the physical basis of the transfer (and storage ?) of specific biological information either between interacting molecules or via an electronic device.