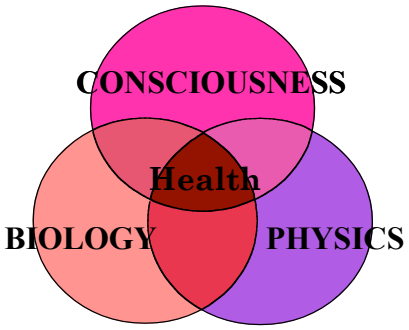

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CONFORMATIONAL CHANGES IN HUMAN DNA CHARACTERIZE THE RADIATED ENERGY FROM THE AULTERRA FORMULATION™

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Introduction

Information content associated with both classical and non-classical (subtle, nonHertzian, scalar) electromagnetic energy can be stored in physical objects. These objects include water (Rein, 1992, Schwartz, 1991), geometric patterns (Rein, 1997), electronic circuits (Dibble & Tiller, 1999) and even paper (Omura, 1990). For water and electronic circuits, preliminary evidence suggests that the stored information can be subsequently retrieved or utilized by biological systems, thereby producing a biological effect. In this sense these objects have a memory of the information stored within them. Although longtime storage of information in physical objects is considered an anomaly in the eyes of traditional science, it has been demonstrated experimentally.

The author's own research in this area has demonstrated that subtle energy generated from "free energy" devices and those associated with human intention can be stored in water for several months if the optical properties of water are measured using a special form of ultraviolet (UV) spectroscopy (Rein, 1992). Furthermore, the stored energy is biologically active when the water is exposed to a variety of biological systems (Gagnon and Rein, 1990). One of the biological targets used in these studies was the DNA molecule. In addition to these responses to stored or imprinted energy, DNA has been shown to act as an antenna for other forms of subtle energy (Rein, 1994a, 1996, 1997). Thus, it has been discovered that in addition to classical EM fields (Semin, 1995), subtle energy resonates with the DNA molecule and causes physical changes in its secondary structure (winding and unwinding of the helix).

Goals of This Research Project

1. Obtain scientific evidence that the energetic intonnation imprinted in the Aulterra powder can produce measurable and reproducible biological effects on DNA using state of-the art scientific methodology.

2. Measure the ability of Aulterra's powder to neutralize the harmful effect from heavy metal toxicity.

3. Demonstrate a biological effect of the energetic information imprinted in Aulterra's homeopathic preparation.

1. After a test tube of DNA sat on the Aulterra powder for varying amounts of time.
2. After the DNA was exposed to varying amounts of the heavy metal, copper.
3. After the DNA solution-containing copper was placed on the Aulterra powder for varying amounts of time.
4. After adding the Aulterra homeopathic preparation to the DNA (1/10 dilution).

Results and Discussion

1. DNA exposed to the energy of the Aulterra powder

The recovery curve in Figure 1A is a typical curve when DNA is suspended in water and left to spontaneously rewind. When the DNA was placed on the Aulterra powder for one day and then measured, there was no change in the recovery curve. However, after 3, 4 or 5 days of exposure to the energy from the powder, a rather interesting recovery curve is obtained (Figure 1B). Instead of a smooth and gradual rewinding process, the recovery curve is oscillatory in nature. This means that the DNA rewinds, then unwinds a little, then continues to rewind and continues to go through cycles of winding and unwinding. This oscillatory behavior has been observed in other systems (Hideshima, 1990; Dibble & Tiller, 1999). It is interesting to note that in the case of Tiller's experiments, oscillatory behavior of water was induced by human intention associated with healing states of consciousness. Healing states of consciousness are known to be associated with coherent oscillatory EEG patterns (Schwartz and Russek, 1997). Furthermore, it was demonstrated that the energy from healers could effect the conformation of DNA only when the electrical activity of their ECG exhibited such oscillatory behavior (Rein & McCraty, 1994b). Thus, by inference the energy emitted from the Aulterra powder may be similar to the energies associated with healers.

2. Neutralizing the effects of heavy metal toxicity

Copper (Cu(II)) was chosen as a representative heavy metal because the biological action of copper is mediated by binding to DNA and causing it to unwind (Sagripanti, 1991). A series of experiments were done to determine the appropriate concentration of copper, i.e. a high enough concentration that would produce a measurable effect on DNA but not too high to totally overload the system. It was predicted that the ability of the energy from Aulterra' s powder to neutralize the toxic effect of copper would be minimized at higher concentrations of copper. Based on the literature a concentration of lmM was initially tested. In order to determine the effect of copper the slope of the recovery curves needed to be analyzed first in the absence of any heavy metals. The normal recovery rate was determined in six separate experiments with the average value for the slope of -0.813: f: 0.06. The recovery rate was then measured in four separate experiments when DNA was exposed to 1mM copper for 2 days. The average slope was dramatically reduced to0.023: f: 0.015. These results are presented in Figure 2 for two typical experiments with and without copper. Preliminary experiments were conducted to determine whether this large effect of copper on DNA recovery rates could be neutralized if the DNA was placed on top of the Aulterra powder while being exposed to the copper. After two days the average slope was -0.011, which is not much different than -0.023 (both giving around 98% inhibition) indicating that the energy from the Aulterra powder did not neutralize the damaging

effect of the copper. However, after three days the slope was -0.28 (66% inhibition) and after four days the slope was -0.36 (55% inhibition), rapidly approaching the -0.81 values for the slope in the absence of copper. These results demonstrate that the energy from the Aulterra powder does in fact partially neutralize the toxic effect of copper by reducing the 97% inhibition (with no energy) to 55% in the presence of energy. The effect appears to be linear with time indicating that the longer the DNA was exposed to the energy, the larger its neutralizing ability. The results were encouraging but only revealed a partial protection from copper when used at 1mM concentrations.

It is possible that only partial protection occurred because the concentration of the toxin was too high. Therefore, these experiments were repeated with a lower dose of copper, 0.5mM. Based on the previous experiments, it was predicted that a neutralizing effect of the low concentration of copper would be seen after only two days. Therefore, twelve separate experiments were done with DNA exposed to 0.5mM copper in the presence and absence of energy from Aulterra' s powder (Table 1). In this case the copper alone caused an 86% inhibition of DNA recovery, giving an average slope value of -0.11: 1 0.25. In the presence of the energy from the Aulterra powder, this effect was reduced to only 36%, giving an average slope of -0.52: 1 0.18. Typical experiments for each of these conditions are shown in Figure 3. The raw data from each of the 12 separate experiments is shown in Table 1. Statistical comparison of the last two numbers reveals a highly significant difference (p=0.01). These results, taken together with the previous results using higher concentrations of copper (Table 2), clearly demonstrate the ability of the energy from Aulterra' s powder to neutralize the toxic effect of copper.

Table 1

Experiment	Off Powder	Experiment	On Powder
1	-0.219	7	-0.566
2	-0.499	8	-0.401
3	-0.02	9	-0.224
4	+0.127	10	-0.525
5	-0.206	11	-0.710
6	+0.166	12	-0.662
Average	-0.109	Average	-0.516
Standard Deviation	0.25	Standard Deviation	0.18

Raw data from six separate experiments showing R^2 slope values for slope calculated by computer.

Table 2

	Average Slope	% Inhibition	Std
No Cu, no energy (control)	-0.813		0.06
1.0mM Cu, no energy	-0.023	97	0.015
1.0mM Cu with Aulterra's energy	-0.011	98	--
05.mM Cu, no energy	-0.11	86	0.25
0.5mM Cu with Aulterra's energy	-0.52	36	0.18

Effect of the energy from Aulterra's powder to prevent Cu induced damage to DNA.

3. The effect of Aulterra's homeopathic preparation on DNA.

Control water used to make the homeopathic preparation showed similar behavior to that previously observed with deionized water, see Figure 1A. Preliminary experiments indicated that, depending on the experiment, several different types of responses were observed in DNA exposed to the homeopathic preparation. Sometimes the recovery would initially appear normal (a steady decrease) but after approximately 20 minutes the DNA would stop rewinding and begin the slowly unwind (positive slope). In other cases it would stop rewinding and remain stationary, i.e. didn't continue to wind or unwind (flat slope). In other cases oscillatory behavior was observed very similar to that observed when the DNA was placed on the powder (see Figure 1B). This oscillatory behavior may be a characteristic response of DNA to Aulterra's energy, whether it be radiating from a powder or "read" by the DNA from information in imprinted water. The non-reproducibility of the phenomenon in regards to the homeopathic preparation is likely to be due to the fact that the resonant conditions have not yet been found experimentally .It is predicted that under the correct resonance conditions, the oscillatory behavior will be more reproducible.

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