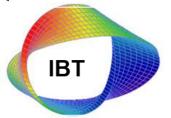
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DNA BASED TEST RESULTS FOR DIMENSIONAL DESIGN'S HOME/OFFICE ADAPTOR'S EFFECTIVENESS IN NEUTRALIZING HARMFUL POWER-LINE & WIFI RADIATION

ABSTRACT

Power-line radiation has been extensively studied and been shown to have a detrimental effect on nearly all biological systems tested to date. Specifically, 60 (50) Hz power-line radiation is known to damage human DNA. Results from several studies using cells grown in tissue culture indicate that power line Electro Magnetic (EM) radiation is an environmental stress factor (along with UV and infrared radiation). Numerous studies have shown that power-line radiation increases point mutations in DNA (Koana, 2001), increases DNA degradation (Li, 2001), increases DNA damage (Ahuja, 1999) and inhibits DNA repair after oxidative damage (Robison, 2002).

The purpose of this study was to evaluate the ability of the Dimensional Design Home/Office Adaptor to neutralize harmful power-line radiation. Dimensional Design technology involves the use of subtle energy associated with vibrational frequency patterns which are stored within the SafeSpace plug. This technology is similar to holographic information stored in crystals (Mok, 1991). The stored energy modulates the entire electric grid of a residential house and is believed to render this 60Hz radiation harmless to the human body. To test this hypothesis, the present study measured the electrical properties of human DNA. Measurements were taken on DNA exposed to ambient EM fields in the environment, DNA exposed to power-line radiation emitted from a power strip and DNA exposed to a power strip after the Whole Space Adaptor was inserted into a wall socket in a different room.

Previous studies have shown that DNA resonates with and is altered by a variety of EM fields (Blank, 1997;Borhani, 2011; Rein, 2003). Electrical conductivity of DNA was chosen as the specific biological endpoint to measure because the electrical properties of biomolecules are highly sensitive to environmental EM fields. Electrical conductivity of DNA, for example, is well known to occur along its central axis and across individual strands (Bakhshi, 1994; Fink, 1999). In the case of DNA, conductivity measures correlate to the functional activity of DNA repair. Increasing conductivity is associated with increased ability of DNA to repair itself (Retel, 1993) and repaired DNA has 20-fold higher conductivity than the same DNA when damaged (Hartzell, 2003). Increased conductivity of DNA is also associated with enhancing intrinsic self-assembly processes (Lintao, 2000). On the other hand, large decreases in conductivity are associated with mismatched DNA strands (Hihath, 2005). Thus, any treatment which increases electrical conductivity can be considered beneficial to the body.

Human DNA was used as a target biomolecule in Quantum Biology's test of the Dimensional Design because it was possible to establish control groups and test DNA sample reactivity to electromagnetic (EM) fields with and without the Whole Space Adaptor's use. In the first test, DNA samples were placed on top of a power strip to expose the DNA to the power-line's 60Hz EM fields.. The electrical properties of DNA were then measured because they are known to both correlate with physiological functions of DNA in-vivo and are highly sensitive to the external energetic environment. Compared to unexposed control group DNA samples, the power-line exposed DNA showed 60% (significantly inhibited)electrical conductivity. The same experiment was then repeated 2 days after inserting the Dimension Design Whole Space Adaptor into a separate room'wall socket. The he power-line radiation exposed DNA was tested again and the sample then showed normal electrical conductivity of DNA indicating a 92% neutralization of the harmful effect of the 60Hz EM fields emitted from the power strip.

B. The Quantum Biology Research Lab's (QBRL) Methodology

The QBRL has developed a method for measuring the electrical property of biomolecules by applying weak voltage spikes at varying amplitudes (up to 50mV) and vary frequencies (up to 100 kHz) and then measuring the induced current response in nanoamps. The standard current-voltage measurement technique was modified using proprietary method to increase the likelihood of measuring quantum tunneling.

When the DNA was exposed to power-line radiation after the house had been treated with Dimensional Design technology, its conductivity was inhibited by only 8% of the original control value, indicating a 92% recovery. Statistically, there was no difference between control values and those obtained from the treated power-strip (See Figure 1). Therefore, we can conclude that the DNA electrical properties where virtually unaffected by power-line radiation neutralized by the Dimensional Design plug. The raw data supporting this conclusion is given in Table 1.

TABLE 1

Control	PS	% Inhibit	2σ		% Inhibit	2σ
				PS + PLUG		
50	18	64	14	46	8	12

Excitation conditions: 10mV and 16 kHz. Values are "percent occurrences' as described in the text. PS refers to power strip. Control, PS, PS + Surge and 2σ values are presented as percent occurrence. Percent inhibition values are calculated with respect to controls

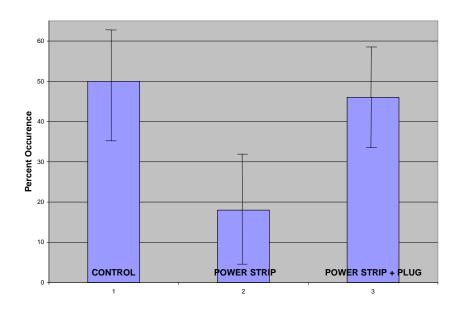


Figure 1: Graph of data in Table 1 showing statistical significance

The data presented in Table 2 were obtained under different resonance conditions than were used in obtaining the data presented in Table 1..

When comparing conductivity values obtained from the treated and untreated surge-protectors (21% vs 5%), we can see in Figure 2 that there appears to be a large difference in conductivity values. However, when examining their statistical significance, the two error bars are identical – they do not overlap, but there is no space between them. This grey area in statistics is called

'marginal significance'. Therefore we can conclude that neutralized power-line radiation no longer inhibits conductivity of DNA. This result confirms the conclusions from the first experiment (Table 1).

TABLE 2

Control	PS	% Inhibit	2σ		% Stimulation	2σ
-				PS + PLUG		
15	5	67	9	21	40	8

Excitation conditions: 12mV and 32 kHz. PS refers to power strip. Control, PS, PS + Surge and 2σ values are presented as percent occurrence. Percent inhibition and percent stimulation values are calculated with respect to controls

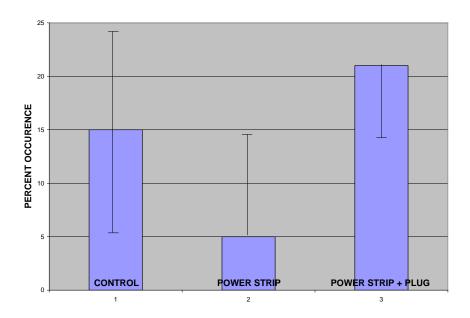


Figure 2 – Graph of data in Table 2 showing statistical significance

DISCUSSION

The results of this study demonstrate a statistically significant effect of power-line radiation to inhibit the electrical properties of DNA. This conclusion confirms previous results using a different surge protector in a different house.

After obtaining the appropriate resonance conditions to observe this detrimental effect on DNA, the experiment was repeated using a surge-protector plugged into a "neutralized" electric grid resulting from the Dimensional Design Plug. In this case, electrical properties of DNA where virtually unaffected (92% recovery) when exposed to neutralized power-line radiation. Thus, the Dimensional Design Home/Office Adaptor completely abolishes the detrimental effect of power-line radiation on DNA, in-vitro. The results of this study are therefore consistent with and confirm some of the marketing claims made by Dimensional Design.

Previous research at the QBRL has indicated that any technology which reverses the detrimental effect of radiation on DNA, under two or more different resonance conditions, is a highly effective technology. The results in Table 1 and Table 2 indicate that this is the case for the Dimensional Design Plug.

Although the mechanism of action of Dimensional Design technology is proprietary, it is likely that the subtle energy generated by the plug couples to the 60Hz EM field in the electric grid of the entire house. The coupling modulates the properties of power-line radiation. In this case the radiation is no longer damages DNA. One possible mechanism to explain this effect is here proposed. If the subtle energy from the Dimensional Design Plug is relatively coherent, the addition of extra coherent energy into the power-line grid, could conceivably make power-line radiation biologically inactive. This hypothesis is based on previous published studies demonstrating that EM field effects are dependent on the ratio of coherent to incoherent energies, and that a biological effect of a particular EM fields could be reversed by certain ratios. (Litovitz, 1994; Farrell, 1998).

The results of the present study indicate that neutralized power-line radiation not only brings conductivity values back to control values, but further increases them by 40% above normal. This over-compensation effect has been observed before by the QBRL when testing other subtle energy technologies to reverse detrimental effects of EM fields. From these previous studies it was concluded that this effect occurs when there is a strong resonance between two energetic systems. In this case there is the subtle energy from the Dimension Design Plug and the 60Hz EM fields in the electric grid of the entire house. The results also indicate that the information which is transferred (via coupling) into the electrical grid of the entire house has two main actions. First, it changes the quality (perhaps coherence) of the power-line radiation, so it is no longer harmful to DNA. Secondly, it adds beneficial information to the power-line radiation which then stimulates electrical conductivity. As described in the introduction, it is known that stimulating electrical conductivity in DNA is associated with increased DNA repair (Retel, 1993) and facilitate self-assembly (Lintao, 2000).

2) WIFI RADIATION

Similar experiments were done with WIFI radiation emitted from a router. The results are presented below in Table 3 and Figure 3.The data were obtained under different resonance

conditions than in the previous two experiments, although the same method was used in both cases. When these resonance conditions were found DNA conductivity was inhibited by 62%. The experiment was then repeated using resonance excitation conditions, but direct measurements of the real component of impedance was measured and presented in Table 3. Under these conditions, when the DNA was exposed to WIFI radiation, its impedance was inhibited by 11%. Whereas after neutralizing the house with Dimensional Design plug, there was no inhibition in the impedance of DNA and this value for impedance was the same as the control (not significantly different). Therefore, we can conclude that the inhibitory effect of WIFI radiation on the electrical impedance of DNA was completely reversed in the presence of the Dimensional Design plug.

TABLE 3

Condition	Average Impedance	SD	2σ	% Inhibition
Control	51,849	1068	3136	
WIFI	46,322	1229	2458	10.7
WIFI + Plug	49,830	1210	2420	3.9

Excitation conditions: 14mV and 79kH. Control, WIFI and WIFI + Plug values are averages from 15 sequential measurements. Percent inhibition values are calculated with respect to controls

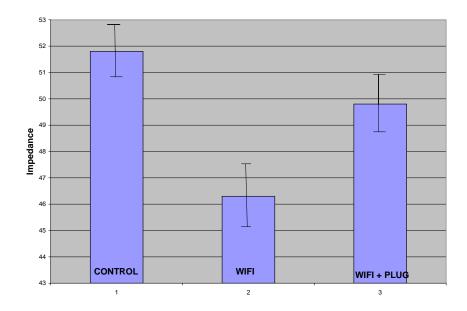


Figure 3 – Graph of data in Table 3 showing statistical significance

DISCUSSION

The results of this study demonstrate a statistically significant effect of power-line radiation and WIFI radiation to inhibit the electrical properties of DNA. Similar results were previously obtained for power-line radiation using a different surge protector in a different house.

After obtaining the appropriate resonance conditions to observe this detrimental effect on DNA, the experiments were repeated using either a surge-protector plugged into a "neutralized" electric grid resulting from the Dimensional Design plug or to a router connected to a modem which was plugged into a similarly neutralized electric grid. In both case, electrical properties of DNA where virtually unaffected when exposed to neutralized power-line radiation, since these values were not statistically different to control values. In both cases, the Dimensional Design plug completely abolishes the detrimental effect of power-line radiation and WIFI radiation on DNA, invitro. The results of this study are therefore consistent with and confirm some of the marketing claims made by Dimensional Design.

Previous research at the QBRL has indicated that any technology which reverses the detrimental effect of radiation on DNA, under two or more different resonance conditions, is a highly effective technology. The results in Table 1 and Table 2 indicate that this is the case for the power-strip neutralized by the Dimensional Design plug.

Although the mechanism of action of Dimensional Design technology is proprietary, it is likely that the subtle energy generated by the plug couples to the 60Hz EM field in the electric grid of the entire house. The coupling modulates the properties of power-line radiation. In this case the radiation is no longer damages DNA. One possible mechanism to explain this effect is here proposed. If the subtle energy from the Dimensional Design Plug is relatively coherent, the addition of extra coherent energy into the power-line grid, could conceivably make power-line radiation biologically inactive. This hypothesis is based on previous published studies demonstrating that EM field effects are dependent on the ratio of coherent to incoherent energies, and that a biological effect of a particular EM fields could be reversed by certain ratios. (Litovitz, 1994; Farrell, 1998).

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References

Ahuja YR, et al "In vitro effects of low-level, low-frequency electromagnetic fields on DNA damage in human leucocytes by comet assay." Indian J Biochem Biophys. 1999;36:318-22

Bakhshi AK. "Investigation of electronic conduction in proteins and DNA." Prog Biophys Mol Biol. 1994;61(3):187-253.

Bezdol'naia IS "Functional status of workers engaged in connecting high-voltage electric power lines" Gig Sanit. 1990;:59-61

Bianchi N. "Overhead electricity power lines and childhood leukemia: a registry-based, case-control study." Tumori. 2000;86:195-8.

Borhani N, Rajaei F, Salehi Z, Javadi A. Analysis of DNA fragmentation in mouse embryos exposed to an extremely low-frequency electromagnetic field. Electromagn Biol Med. 2011 Dec;30(4):246-52.

Cohen H. et al. "Direct measurement of electric transport through single DNA molecules." Proc Nat Acad Sci 2005;102:11589-593.

Farrell JM et al. "The superposition of a temporally incoherent magnetic field inhibits 60 Hz-induced changes in the ODC activity of developing chick embryos." Bioelectromagnetics. 1998;19:53-6.

Fink H-W, Schönenberger C. "Electrical conduction through DNA molecules" Nature 398, 407-410,1999.

Garn H et al "Present knowledge about specific absorption rates inside a human body exposed to radiofrequency electromagnetic fields" Health Phys. 1995;68:147-56.

Goodman, R., Lin, H., Ye, L., Weisbrot D. EM field-induced markers of delineators of interaction mechanism. Proceedings of the Bioelectromagnetics Society. Quebec City, Canada. June, 2002.

Hardell L. "Biological effects from electromagnetic field exposure and public exposure standards." Biomed Pharmacother. 2008;62:104-9.

Hartzell B. "Comparative current–voltage characteristics of nicked and repaired λ -DNA" Appl. Phys. Lett. 82 (26), 4800 (2003)

Hihath J, Xu B, Zhang P, Tao N. Study of single-nucleotide polymorphisms by means of electrical conductance measurements. Proc Natl Acad Sci USA. 2005;102:16979–16983.

Koana T et al "Involvement of eddy currents in the mutagenicity of ELF magnetic fields." Mutat Res. 2001;476:55-62

Kutnak Z et al "Electrical conduction in macroscopically oriented deoxyribonucleic acid" Physical Rev E 2005; 71:041901-1 to 041901-8

Li CY. "Elevated residential exposure to power frequency magnetic field associated with greater average age at diagnosis for patients with brain tumors." Bioelectromagnetics. 2003;24:218-21

Li SH, Chow KC. "Magnetic field exposure induces DNA degradation." Biochem Biophys Res Commun. 2001;280:1385-8

Lintao Cai, Hitoshi Tabata, and Tomoji Kawai Self-assembled DNA networks and their electrical conductivity" Appl. Phys. Lett. 77, 3105 (2000); doi:10.1063/1.1323546

<u>Litovitz TA</u> et al. "Superimposing spatially coherent electromagnetic noise inhibits field-induced abnormalities in developing chick embryos." <u>Bioelectromagnetics</u>. 1994;15:105-13.

Mok FH, Tackitt MC, Stoll, HM (1991) Storage of 500 high-resolution holograms in a LiNbO3 crystal. Optics Letters 16: 605-607.

Rein G. "Storage on non-Hertzian Frequency Information in Water" In: Proc. Inernat. Tesla Soc. Elswick S. (ed), Tesla Soc Pub., Colorado Springs;, CO., 1992

Rein G. "The in vitro effect of bioenergy on the conformational states of human DNA in aqueous solutions" J. Acupuncture & Electrotherapeutics Res. <u>20</u>: 173-180, 1995

Rein G. "Utilization of a New In-Vitro Bioassay to Quantify the Effects of Conscious Intention of Healing Practitioners" <u>The Science of Whole Person Healing</u>, Vol.2, R.Roy (ed). Iuniverse Inc, Lincoln, NE, p222-236, 2003

Retel J et al. "Mutational specificity of oxidative DNA damage", Mutat. Res. 299:165-72, 993

Robert E. "Birth defects and high voltage power lines: an exploratory study based on registry data." Reprod Toxicol. 1993;7:283-7.

Robison JG et al. "Decreased DNA repair rates and protection from heat induced apoptosis mediated by electromagnetic field exposure. Bioelectromagnetics. 2002;23:106-12

Simko M. "Induction of cell activation processes by low frequency electromagnetic fields." ScientificWorldJournal. 2004;4(Suppl 2):4-22

Smith CW. "Physicks and physics." J Altern Comp Med 1999;5:191-193.

Syldona M. "Reducing the in-vitro electromagnetic field effect of cellular phones on human DNA and the intensity of their emitted radiation." Acupunct Electrother Res. 2007;32:1-14.

Van Zandt LL. "Why structured water causes sharp absorption by DNA at microwave frequencies." J Biomol Struct Dyn. 1987;4:569-82

Xin-Qi, L et al. "A superexchange-mediated sequential hoping theory for charge transfer in DNA" J Phys Chem A 105, 9563-67, 2001

Zikic R et al. "Characterization of the tunneling conductance across DNA bases." Phys Rev E Stat Nonlin Soft Matter Phys. 2006 Jul;74(1 Pt 1):011919.

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