Structured water and inflammation

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Structured Water and Inflammation

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Basic Research Ltd.

An ounce of prevention is worth a pound of cure.

"Oh man, this is heavy!"

"You should lift with your legs."

"Eh, screw it, I got health insurance."



"It is often less difficult for a man of original thought to discover new truth than to discover why other people do not understand and do not follow him."

— Herman von Helmholz,

I have made a discovery regarding the structuring of water and other liquids based on an obscure physics field called torsion. Following a series of unexpected experimental results, the following questions have been raised.

Could the structure of water be the **source** of disease rather than a mere symptom? Could water be structured in order to prevent, or even reverse, disease? If so, how would "healthy" water differ from "sick" water? How would we go about objectively quantify this difference?

"In general we look for a new law by the following process. First we guess it. Then we compute the consequences of the guess to see what would be implied if this law that we guessed is right. Then we compare the result of the computation to nature, with experiment or experience, compare it directly with observation, to see if it works. If it disagrees with experiment it is wrong. In that simple statement is the key to science."

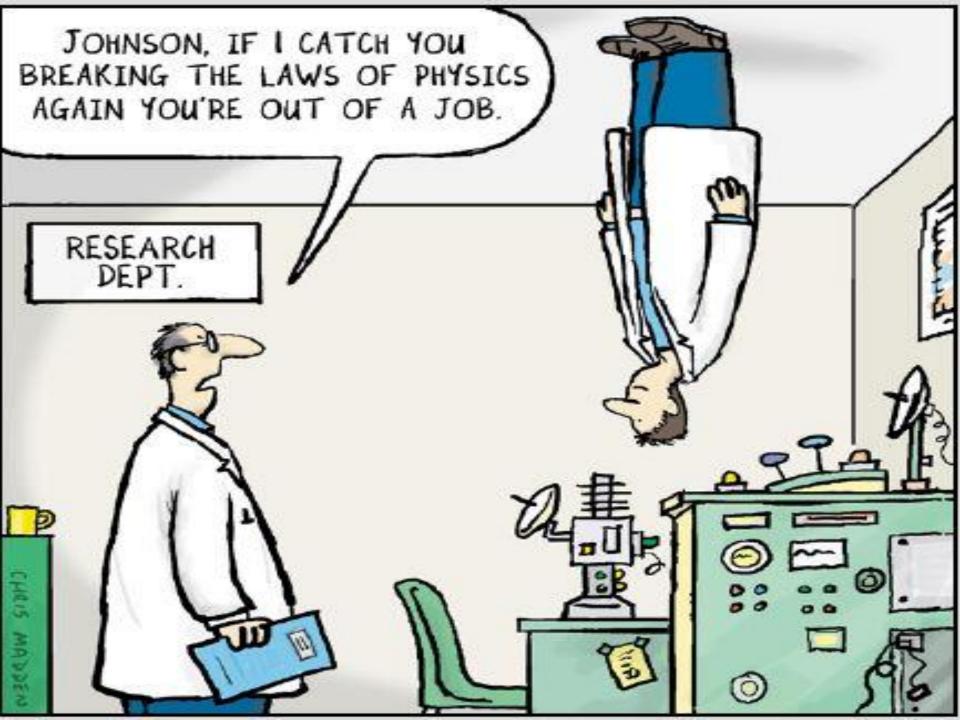
Richard Feynman

There is a radical new theory underpinning many disease processes posited by MIT researcher Stephanie Seneff overlapping with many of my own observations on water structure and its apparent health effects.

According to Seneff:

A number of medium-chain fats and cofactors, e.g., lauric acid, capric acid, ascorbic acid, panthothenic acid, -lipoic acid, and niacin, all share apparent membrane-stabilizing properties; it is plausible to infer that they all act predominantly by lowering interfacial water tension.

Bioactive polyphenols and polyketones represent other classes of surfactant mimics, whose bioactivity and bioavailability may be significantly modified by sulfation. Resveratrol, curcumin, ascorbic acid, and the healthpromoting phenols in coffee and chocolate can be sulfated, and this may be the key to their biological benefits.





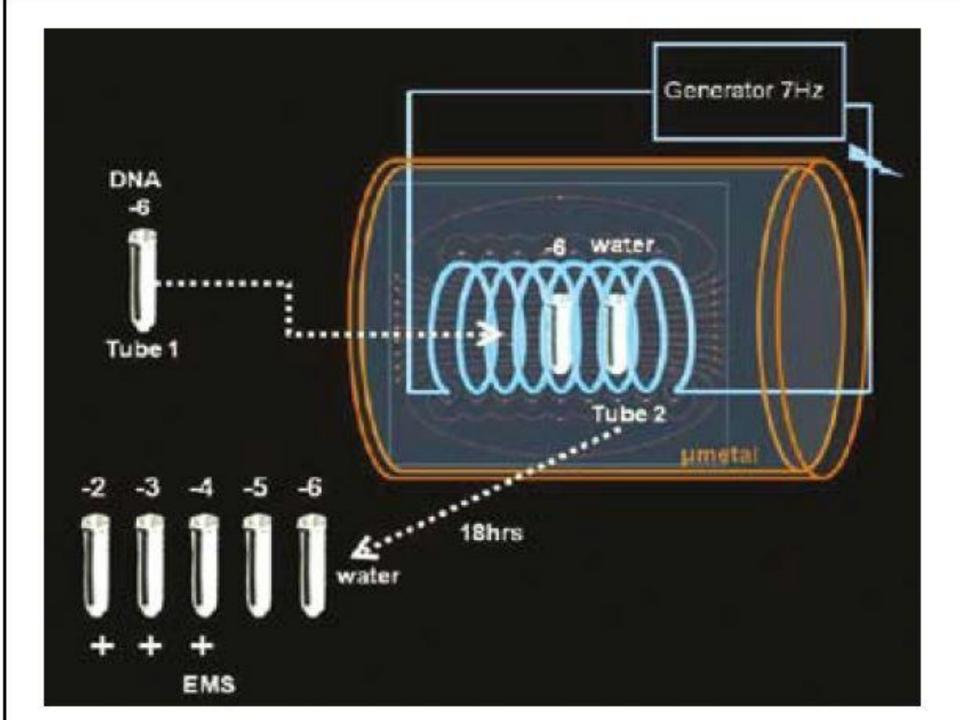




Luc Montagnier, has brought forth remarkable new evidence for a nonparticle view of life. The emission of lowfrequency electromagnetic waves from bacterial DNA sequences, and the apparent ability of these waves to organize nucleotides (the raw material of DNA) into new bacterial DNA, by mediation of structures within water, are among the important results reported to date.

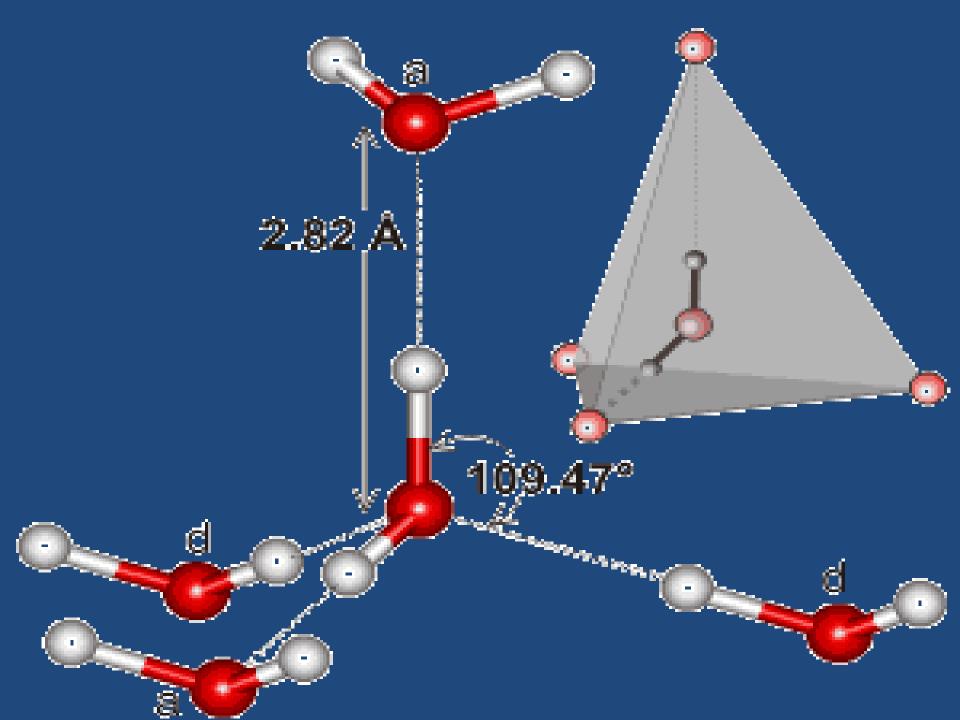
demonstrating the interaction of living organisms with electromagnetic waves, perhaps including the low-frequency Schumann resonance waves in the Earth's atmosphere, the work has revolutionary implications for biology and our whole understanding of the universe, extending the work begun in the 1920s by such figures as Alexander Gurvitsch, who detected ultraviolet radiations from growing plant cells.

In experiments reported by Montagnier at a 2010 conference in Lindau, a tube of pure water, when exposed to a second tube emitting signals, was made to emit signals, and then to cause DNA sequences placed into the pure water to assemble into sequences similar to those of the original emitting organism.



Now comes the most remarkable step. The ingredients for synthesizing DNA by the polymerase chain reaction (nucleotides, primers, polymerase) were added to the tube containing the pure water. It is expected that the PCR reaction should require the presence of at least one copy of the DNA segment which is to be reproduced, to serve as an initial template for DNA amplification. This was not added.

What role/s does structured water play in biology?



Pentagonal water clusters have been experimentally identified as key to the hydration and stabilization of biomolecules. Such examples indicate the tendency of water pentagons to form closed geometrical structures at biomolecular interfaces including amino acids and nucleotides (DNA, RNA). The "restructuring" or clustering of water molecules may even determine biological cell architecture. Approximately 70 percent of the human body is water by weight. Much of that water is believed to be restructured or nanostructured, which affects biomolecular processes including protein stability, enzyme activity, and proton transfer.

Some diseases (e.g. Alzheimer's, Parkinson's, type II diabetes, and cataracts) are associated with the "misfolding" of proteins. Water - "restructured" as nanoclusters of the above-described type - plays a key role in the proper folding of proteins. The misfolding of proteins, making them dysfunctional and disease-causing, is likely associated with the failure of water molecules to congregate in clusters that properly interact with the protein. The development of drugs to treat such diseases should therefore consider the restoration of water clustering at the protein interfaces.

You already know that water can have three states of matter: solid, liquid and gas. But scientists at the Oak Ridge National Lab (ORNL) have discovered that when it's put under extreme pressure in small spaces, the life-giving liquid can exhibit a strange fourth state known as tunneling.

The water under question was found in super-small six-sided channels in the mineral beryl, which forms the basis for the gems aquamarine and emerald.



The channels measure only about five atoms across and function basically as cages that can each trap one water molecule. What the researchers found was that in this incredibly tight space, the water molecule exhibited a characteristic usually only seen at the much smaller quantum level, called tunneling. "This means that the oxygen and hydrogen atoms of the water molecule are 'delocalized' and therefore simultaneously present in all six symmetrically equivalent positions in the channel at the same time," says Kolesnikov.

Water cluster "surface" THz vibrational modes are especially important because they couple or "resonate" with THz-frequency "bending" vibrations of the aminoacid residues in proteins. An example is shown in for the protein, insulin, where it has been established experimentally that a "hemispherical" pentagonal dodecahedral water cluster "clathrates" a "valyl" (amino acid residue). This property is also key to optimizing the delivery of drugs to and their interaction with drugreceptor sites, where THz vibrations of water clusters clathrating the drug may provide the resonance needed to restore the interfacial water restructuring essential for proper protein folding (this is why I suspect the quantum physical properties of water at least partially explain the mystery of homeopathy).

Formation of hydrogen bonds between a drug molecule and a water molecule will polarize the latter, resulting in further hydrogen bonding to other water molecules and the formation of water clusters that play a key role in drug receptor identification. Even in the absence of hydrogen bonding, drug molecules will tend to cause water restructuring and the formation of cage-like structures, which implies that the drug molecule will have a "water signature". Finally, the application of infrared radiation to restructure water into clathrate structures near cancerous (e.g. skinor breast) tissue, which is known to harbor more "liquid-like" water, could possibly complement drug treatment.

Kolesnikov adds that the discovery could have implications wherever water is found in extremely tight spaces such as in cell membranes or inside carbon nanotubes.

Quantum Coherence in Biology

There are environments in biology where water molecules may be confined in linear instead of globular arrays. One example is the "microtubule", (a principal component of the cytoskeleton) - which are hollow polymeric cylinders approximately 25 nm in diameter composed of the protein, 'tubulin". Microtubules are dynamic structures that help to determine biological cell shape and facilitate intracellular transport. Extraordinarily large electric dipole moments, may lead to the "quantum coherence" or "Bose-Einstein-like" condensation of interacting water clusters confined to microtubules.

While the human body is 70 percent water by weight, the normal human brain is nearly 90 percent water. It is possible that this quantum-coherent dynamical Jahn-Teller system of water clusters and the quantized THz electromagnetic field confined within the hollow inner cores of brain microtubules may be relevant to conscious thought processes, consistent with controversial ideas promoted by Penrose and Hameroff. This in turn may at least partially explain why even slight dehydration often produces such dramatic cognitive impairment.

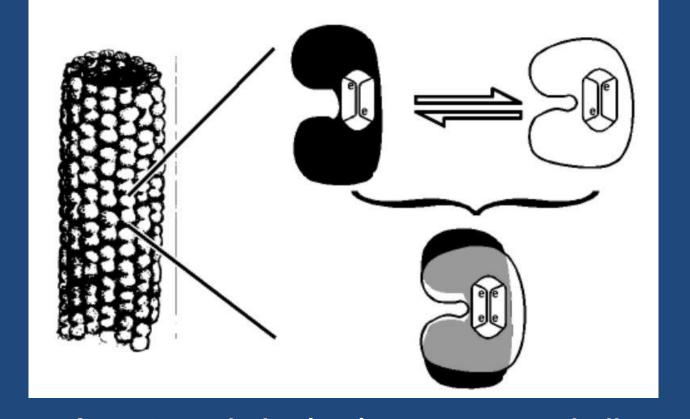


Figure 3. Left: Microtubule (MT) structure: a hollow tube of 25 nanometers diameter, consisting of 13 columns of tubulin dimers arranged in a skewed hexagonal lattice (Penrose, 1994). Right (top): Each tubulin molecule may switch between two (or more) conformations, coupled to London forces in a hydrophobic pocket. Right (bottom): Each tubulin can also exist in quantum superposition of both conformational states (Figure 1a, c.f. Hameroff and Penrose, 1996).

Modified Magnesium Carbonate Experiment

A classic precipitation chemistry experiment performed by countless school children around the world involves the Mixing of two soluble salts (Sodium carbonate and Magnesium sulfate) to form the insoluble salt (Magnesium carbonate). We repeated this classic experiment with the addition of heat along with activated charcoal granules. Equal portions of Sodium carbonate solution, Na2CO3(aq) and Magnesium sulfate solution, MgSO4(aq) were mixed in paired flasks along with equal portions of activated charcoal granules, mixed thoroughly, then placed over heat.

In 1971 Raymond Damadian had a revolutionary discovery in cancer research: it was shown that cancerous tissue is markedly over-hydrated and can be much as 90% water, while in norm it can be 70-73%. "Magnetic Resonance" method which was suggested by him for the detection of cell over hydration serves as an early tumor detection diagnostic method (Damadian, 1971) and at present has a worldwide clinical usage.



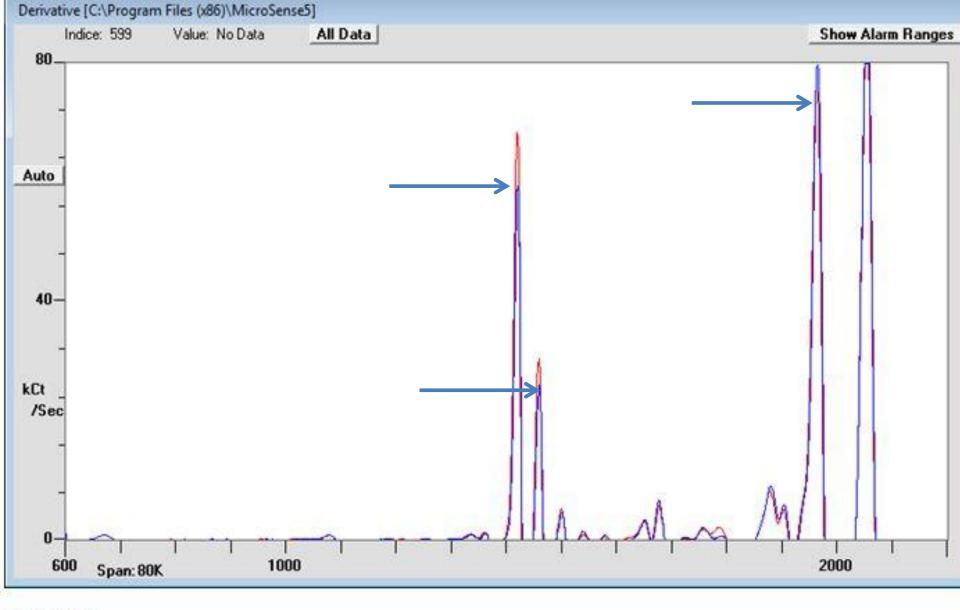
Structured



Elevated blood sugar

Dehydration, obesity, diabetes, cancer, arthritis, hypertension,

Lemonade sweetened with structured stevia to mimic the taste of sugar



LEMONADE

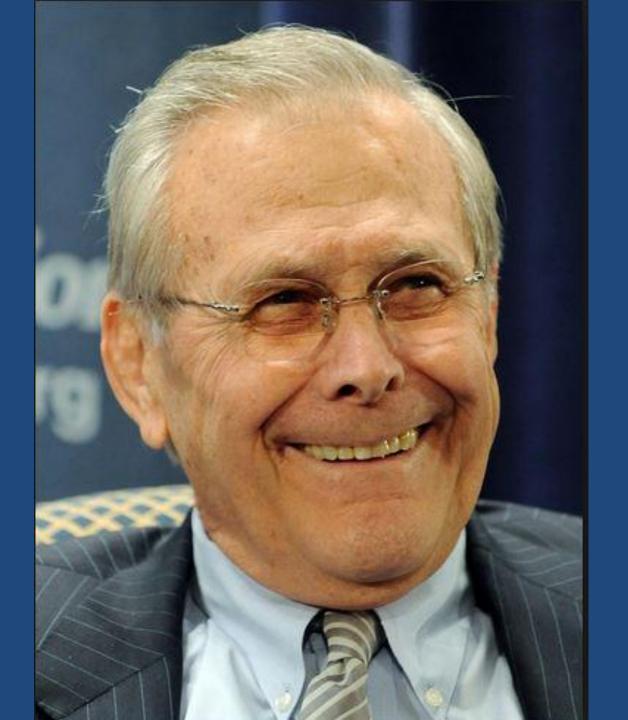
BLUE = CONTROL

RED = STRUCTURED

Now who was the humanitarian responsible for the approval of Aspartame as a safe, calorie-free sugar substitute over the unanimous objection of top FDA scientists?

After all, what do they know?

Give up?



The FDA's own toxicologist, Dr. Adrian Gross told Congress that without a shadow of a doubt, aspartame can cause brain tumors and brain cancer and that it violated the Delaney Amendment, which forbids putting anything in food that is known to cause cancer. According to the top doctors and researchers on this issue, aspartame causes headache, memory loss, seizures, vision loss, coma and cancer. It worsens or mimics the symptoms of such diseases and conditions as fibromyalgia, MS, lupus, ADD, diabetes, Alzheimer's, chronic fatigue and depression. Further dangers highlighted is that aspartame liberates free methyl alcohol. The resulting chronic methanol poisoning affects the dopamine system of the brain causing addiction. Methanol, or wood alcohol, constitutes one third of the aspartame molecule and is classified as a severe metabolic poison and narcotic. How's that Diet Coke treating you now?

Alfie is a 12-year-old male Shih Tzu who was diagnosed with stage 4/5 metastatic cancer in January.

Dr. Jack Kruse https://www.jackkruse.com/

Dr. Robert O. Becker
The Body Electric and Cross Currents

Rife Technology
Nenah Silver PhD
Rife Manual
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