TENSEGRITY # 4: MAGNETISM, SLEEP, AND ELECTRONS

READERS SUMMARY:

1. WHAT ARE THE 4 WAYS MAGNETISM AFFECTS BIOLOGY FROM A 30,000 FOOT VIEW?

2. HOW DOES MAGNETISM ALTER ELECTRONS?

3. HOW DOES MAGNETISM ALTER WATER?

4. HOW DOES MAGNETISM RE ENERGIZE TISSUES AT NIGHT?

5. HOW DOES MAGNETISM WORK WITH THE SCHUMANN RESONANCE?

One of the most pervasive and mysterious phenomena in the universe is magnetism. What is more mysterious is how life uses it. It is among the most complex biologic phenomena in our world. As a scientist knows it, magnetism is the invisible pull that surrounds magnets, electric currents and even the electrons that circle the heart of the atom. Physicists do not wholly understand it, but they use it constantly. Cells use it more than most could ever fathom. This blog will explore some of those ways. ***This list is not meant to be complete. It reflects our knowledge as of today.*** All the hundreds of thousands of electrical devices in the modern world have fields of magnetic force coursing through them. This includes anyone reading this blog. Any discovery that promises stronger or better controlled magnetism is immensely important to both practical industry and theoretical science. It is massively important for the biologic syncytium. The magnetic field we live in acts like the circuit board for the current in our cell membranes and cells provided by DHA.

WHAT ARE THE 4 MAJOR WAYS A MAGNETIC FIELD DIRECTLY ALTERS YOUR BIOLOGY?

1. Liquid crystals (think water) are relatively easily aligned with electric and magnetic fields, which is the basis of the liquid crystal display screens that come with watches, calculators, computers and computer games. Most of these changes in water are due to changes in charges on water's hydrogen bonding network. On earth currents move from higher voltages to lower voltages. In space they can move any way they want. This is why Maunder minimum's are something life below on Earth needs to pay attention too. These massive flows of energies can flow in the Birkeland currents. On Earth below, water is a natural magnetic dipole. In July 2012, the Earth almost was hit by a massive energy flow according to NASA. It reacts to the field it is placed in. This makes it the perfect chemical to imprint patterns from a magnetic field. This is one way we can determine patterns to organize other chemicals within a cell. The cell membrane is also known to play a major role in pattern determination. It is also surrounded by water in a cell. This implies that the cell membrane also has electric and magnetic effects associated with it. One way in which an external static magnetic field can affect body pattern is if a global alignment of membrane components – as a kind of phase transition brought on normally by an endogenous electric field – is involved in pattern determination. DHA inclusion in the cell membrane *allows for the generation of this electric field*. In this case, a weak external magnetic field could easily interact with the endogenous electric field to alter the alignment on a global scale. This is precisely what the Earth's magnetic field does in concert with the massive electric potentials stored in cell membranes everywhere in life. The frequency of this interaction is known as the Schumann resonance. This is how a cell and the Earth's magnetic field interact on a quantum basis. This is not metaphysical science. It is quantum mechanics at work in

matter. Life uses a DC current to generate its electric fields. It does not use an AC field. The power grid made by man however uses an AC current and then it is rectified before it gets into our homes as a DC current. The AC field has the ability to wreak havoc on the interaction between the magnetic and electric fields in cells. Significantly, alternating magnetic fields invariably fail to produce the 'twisted' morphology. AC fields produce other abnormalities in significant ways that block key aspects of cellular signaling. This is especially problematic during growth and development humans. These observations are consistent with the hypothesis that static fields act via the alignment of macroscopic arrays of molecules. Alternating magnetic or electric fields are unable to achieve these effects.

2. A second orientation effect is **Larmor precession** due to oscillating paramagnetic atoms or ions. I spoke about this in Tensegrity 2 and in my early 2014 webinars. When atoms are exposed to a magnetic field, the oscillating magnetic atom tries to align itself with the external magnetic field, and in so doing, precesses like a top around the direction of the magnetic field; the frequency of precession is called the Larmor frequency. This is a big deal in protons. Life lives in such a cavity called the Schumann cavity. This cavity is what we are adapted to form an evolutionary perspective. When you use a strong local static magnetic field you can limit the effects of AC fields of lower strength. In this way, a *magnetico pad* offers some protection at close ranges to the damaging effects of AC magnetic fields. The Larmor frequency is proportional to the intensity of the magnetic field. The stronger Gauss of the magnetic field the more protection one gains from an AC magnetic field. This is an instance where the effect could appear at low field intensities and disappear at high intensities. **High gauss magnetic fields have been shown to induce anesthesia in animals.** This work was done by Robert O. Becker MD. Thus, the effect of electromagnetic fields on the movement of the paramagnetic ion Ca^{2+} across the

cell membrane exhibits both frequency and intensity windows.

3. A third orientation phenomenon of a magnetic field is well documented in chemical reactions where a covalent bond is split by a magnetic field. This results in ‘free radical’ generation each carrying a single unpaired electron. As the covalent bond is formed originally by two electrons of opposite, anti-parallel, spins, the radicals resulting from the reaction will also have anti-parallel spins. These electrons are said to be in the singlet state. Both states of spin have the same energy level in this type of bond. This is important. However, it often happens that the separated free radicals may have parallel electron spins versus antiparallel spins. This is referred to as the triplet state. These free radicals will populate three different energy levels in a magnetic field. The magnetic field is another way to energize or de-energize these free radical electrons. In this way, a non-native EMF field can power up these free radicals to cause massive changes in energy within a cell. Magnetic fields also affect all forms of protons in water with different quantum spin numbers.

This becomes a real problem in an environment that has higher energies than the Earth’s magnetic field. This is what life is facing today due to modern technology use. Cold thermogenesis is one way to combat the higher energies in our environment. This type of field would cause the electrons in a covalent bond to drift further apart so that one or the other of the free radicals can react with another molecule yielding another pair of free radicals also with parallel spins. This allows for massive fast forward free radical generation. This results in lipid peroxidation of cell membranes everywhere in a cell. The loss of the electric fields in the cell membrane then uncouples the cell from the Schumann resonance of the Earth’s magnetic field. This linkage is made in Maxwell’s laws of electromagnetism. When you lose your DHA in your cell

membranes you also lose your ability to sense the magnetic field you live in. The magnetic field you live within is like a circuit board in a semiconductor chip. It directs the current to where it needs to go. This causes intracellular chaos and disorders the architecture of the cell. It can no longer function as its DNA blueprint asks it too. Normally in biochemistry, in order for covalent bond to form, the spins must be anti-parallel, and in the absence of an external magnetic field, all the triplet states have approximately the same energies so the relative spins soon change and bond formation will take place. The separation of the triplet energy levels increases due to the different alignments of the magnetic free radical pairs as the magnetic flux density increases. This is why magnetism is so difficult for biology to understand. They are neophytes in understanding these complex quantum interactions.

In the presence of an external field (think Schumann), however, the spins align themselves so that they are both either in the direction of the field, called T+1 or in the opposite direction, T−1. They can also be perpendicular in the field direction. This different orientation states no longer have the same energies. This is how the Earth's magnetic field can dampen electron energies in order to use them in a covalent bond. Most of the biochemistry in cells are run by covalent bonding. Moreover, as the magnetic field increases in intensity, the electrons diverge more and more. This has indirect effects on protons. The T±1 states become trapped, and can no longer get back to the anti-parallel configuration necessary to form covalent bonds. Hence the reaction rates in biochemistry in the presence of the magnetic field will be greatly diminished. **Contrary, when the effect of an external magnetic field is reduced, biochemistry rates speed up and cause rapid aging. This is what happened to the Russian cosmonaut I mentioned in the EMF series. It is also happening now on the surface of Earth because of non-native EMF from technology.** Here you can see how an altered magnetic field can change the rate the biochemistry. No one in ancestral

health or medicine see these fundamental interactions. None of them add this to their advice. None of these are dictated by foods or your diet. They are acted upon by alterations in the electrostatic and magnetic fields to alter circadian signaling.

By contrast, oscillating or alternating magnetic fields, that are used in modern homes and technology appliances will be expected to enhance reactions rates, as they facilitate the changes in relative spins of electrons. This same process occurs when a coronal mass ejection hits Earth. You would be wise to read the book "The Sun Kings" to understand how the sun's magnetic explosions can have massive effects on Earth and the life on it.

The Earth's magnetic field is compressed by the solar wind on the side facing the sun and is stretched out on the side away from the sun. This area is called the magnetotail, which extends tens of earth radii downwind. **The magnetotail is what powers life when it is dark. You can think of this like a black swan event horizon for animals who are nocturnal with scotopic retina's.** While the sun's electromagnetic radiation can impact the entire ionosphere that is in daylight, charged particles ejected by the sun are guided into the ionosphere along magnetic field lines called Birkeland's currents, and thus can only impact high latitudes at our poles where the magnetic field lines go into the Earth. These massive solar energies in coronal mass ejections are likely what transmitted the energy or fueled life to create an environment for endosymbiosis 600 million years ago. I spoke about this in the ***August 2014 webinar***. You might also begin to see how our modern power grid energizes electrons to do things they should not do in our cells. These technologies lower our ability to make triplet free radicals and instead, we can only make singlet free radicals. This is associated with pseudohypoxia and decreased UV light absorption from surfaces in out body. Nighttime radiation clearly is present for some reason. It

also appears to have a positive effect on nocturnal blooming plants. Solar winds contain charged particles emitting continuously from the sun at 670,000 to 1,600,000 mph carrying the energy and momentum of light. When the solar wind hits the Earth in the daytime it forms a disc on this side and on the nighttime side the magnetotail forms. This tail causes the positive electrical charge on the morning side of this light boundary and a negative charge on the dark side. This change in charge affects the activity of nocturnal animals making them more active at night. When these animals are on the ground they miss this electrical signal and are less active. This solar-earth interaction is another instance where one can begin to see the differences of how a static magnetic field will have very different effects from oscillating magnetic fields on electrons. Click on the next hyperlink.

Coronal Mass Ejection

The above three electromagnetic "field effects" clearly state my case that **"the field of action"** determines everything that can happen in biology. The electrostatic field and magnetic field has many effects few see. They impact biology in direct quantized fashion. Anyone who is a chemist in any field knows that the action of electron action determines how chemistry can occur. Now I am taking it to the smallest scale, that biochemists, organic chemists, and physical chemists rarely consider. I am showing you that the playing field that biochemical reaction occurs in cells are 100% built upon *a moving stage* of the magnetic field the cell is in. This field controls charged particles actions and capabilities. It is the circuit board for our electric universe that resides within us.

Many biochemists do not believe the Earth's native electromagnetic field can have a direct action on the electrons in all biologic reactions. Most biochemists think the quantum effects of electrons are already "included in the biochemical equations" of life. The leaders of ancestral health admitted this to me in 2011 at AHS. That is a huge assumption on their part that I believe is dead wrong. This belief has kept biology in the dark ages in my opinion. Pressman pointed out in 1970, the orientation effect of the Earth's magnetic field on a single electron spin associated with any biologic molecule is of the order of 10^{-8} electron volt. This is far too weak a charge to be detectable by ordinary mechanisms that biochemists use in any of their experiments today. Ironically, neurosurgeons use MRI's daily in their clinics and these machines show the presence of these actions daily. Biochemists, however, do not use MRI routinely. Even fewer understand how they work. Conventional wisdom in ***biology believes if they can't measure an effect it cannot exist or affect a cell.***

This idea is egocentric and ludicrous when your understanding is at a quantum scale. Consider, that mankind could not measure the magnetic field in 1800. We gained that ability in 1835. Does that mean in 35 years the magnetic field just appeared to our consciousness and became significant to life because we found it, or because it has existed for 4.5 billion years and we did not have the ability to perceive it? Biology has not measured the effect on cells just yet, and because they are not capable of doing so in the way the design their experiments, at the scales nature works on. So today, their textbooks and beliefs reflect the fact as if it is negligible. Now think back to my analogy of our understanding of the geomagnetic field in 1800 and 1835. I think we would all agree that the unmeasurable field in 1800 was not negligible to life at any time on Earth just because we could not measure it. It was and is critical to sustaining life. Just have a look at Mars if you think that is false. Mars

has no substantial magnetic field and is a dead red desert. The magnetic effect has been shown to exist in biophysics experiments and has massive effects on energy flows everywhere in the universe. If you read about the Carrington Event of 1859 in 'The Sun Kings ' book, this is made clear as day. The telegraphs of the day in 1859 that were disconnected from their batteries showed that the sun's magnetic energy could be used to increase and improve the quality and ability to send messages over telegraph wires that used a direct current. Other telegraphs using different mechanisms of electrochemical transmission caught fire and killed people. This shows you how something is organized will determine the interactions possible.

The Standard Model of physics has some interesting things to say about forces and the scales they work upon. Let us review that again.

The four fundamental physical forces at work in the universe:

1. The strong force
2. The weak force
3. The electromagnetic force
4. The gravitational force.

All of these forces act upon matter differently, therefore they have their own characteristic forte's. They all work at different scales and ranges to exert their effects. For example, the one force humans are most familiar with is gravity. Most are shocked to find out gravity is the weakest of the 4 physical forces. It is weak but it has an infinite range of things with a mass. It also is the one force we know the least about. The first two act inside the atom's nucleus and have massive short range power in the atom and we do not need to go into their complexity yet.
The electromagnetic force is the one I have been spending a lot of time discussing with you over the last 2 years. It has infinite range and power over electrons.

What makes the electromagnetic force field so special for biology?

It has the power and scale to solve the problem that Pressman detailed in 1970 that I detailed above. The electromagnetic force from the Earth's core is 100% capable of making electrons and protons do what they should animate all life by precisely controlling the biochemical flux of the reaction in cells. The proof of this was shown earlier in this blog. All biochemistry is controlled by quantum actions moving electrons and protons around matter in cells to create energy and decrease entropy. The key to movement is the power of light to do that moving. The thermodynamics in a cell should be consistently coupled by reactions using special protein polymers that have the capabilities to perform this quantum dance. Our proteins are polymers of condensed matter that electrons directly affect to change their physiologic ability. This organizes the cell architecture without the use of an external energy source. If this organization goes awry, the cell must add energy to its own organization to maintain order. This is called a dissipative structure. Think of a dissipative structure like a whirlpool of water. If there is no current or disturbance to bring the flow of water into the vortex of the whirlpool, it ceases to exist. The same is true of cells. Without energy or information, they lose their structural abilities to remain metastable and signal properly. In this way, mitochondrial signaling becomes decoupled from nuclear DNA. DHA takes electromagnetic energy and transforms it into electric currents. These current can be made of electrons or protons. These currents travel from our cell membranes to our mitochondrial membranes and to our nuclear membranes to signal to nucleic acids what is happening in our environment. When it is cold, semiconductive currents using electrons increase in DHA and proteins and this signals mitochondria membranes to condense. This affects protons motions and bonding. When we condense this region the spinning ATP^{ase} can no longer spin, and ATP is not made.

Electrons still move on ECT but heat if liberated in thermogenesis. Heat is a form of light. This heat charge (IR light) separates water to make a larger energy battery in water. ATP is not needed for cellular energy as many commonly believe. This light is from the electromagnetic spectrum. If DHA is lost for any reason chronically, the cell chronically loses energy and gains entropy, ruining its physiologic function. DHA is also capable of turning light into an electric current using the photoelectric effect. This is how all neolithic disease have begun when man began to tinker with the electromagnetic force to create "progress". Sometimes "tinkering" can be tied to removing the most powerful momentum in life.

Progress is based on your perspective, in my opinion. Modern science has many precepts or beliefs about what is true but most of those precepts are about how cells work. They have no idea how sunlight powers cells. That is a natural concept, not a precept. Tree and plants die without sunlight. We still do not believe animals have the same fate. Remember, the electromagnetic force has both infinite power and range to act upon all forms of matter that is charged. Light is an electromagnetic forces family. We seem not to realize this very fundamental issue. Moving electrons and protons around is how protein charges are altered to order biochemical reactions. This makes the electromagnetic force special for biologic use because it is much stronger than gravity and acts at subatomic scale. At this scale, it operates below detection of biologist because they do not have the ability to measure things at 10^{-8} electron volt scale. That force also is tied to the frequency of the sunlight in question. No one in biology even thinks to do the same experiments in different frequency lit environments. Ironically we have 100 years of data that red light has some amazing effects on cytochrome c (COX) in mitochondria. It contains 4 red light chromophore proteins that are made of heme backbones. This is why COX controls apoptosis. It is the strongest force in the universe,

and this is why it controls our most critical forms of matter in cells. That matter is chromosomes, nucleic acids, and water. So let us look at how life uses magnetism as its main circuit board to control energy flows.

Leask (1977) first proposed that detection of magnetic fields in birds is through its eyes, in the light-sensitive rhodopsin molecules. We briefly mentioned rhodopsin in the October 2013 webinar. This is the "Maxwell demon" protein in the retina, captures the energy and information in a sun's photons to make sense and creates a visual experience out of sunlight without ever changing its molecular structure. It does it by altering its bond angles and torsions in the rhodopsin molecule. The potential energy of the photon is stored in that rotational change to the rhodopsin molecule. This potential energy is transformed into another form of energy/information. Here is an example of how life uses the first law of thermodynamics. Energy can not be created or destroyed, but it can be transformed into another type of energy to be useful to life. The energy of the photon is transformed into something the Earth's magnetic field can act upon, the cell membrane. The cell membrane is the main antenna system to decipher the energy and information in light's waves for native electromagnetic signaling. This is why DHA has been highly conserved in cell membrane chemistry for 600 million years in eukaryotes.

The Geek version of this story is as follows: In birds when a light is present on their retina, rhodopsins absorb the sun's photons to excite rhodopsin electrons into the triplet state that I mentioned above. This all occurs in the Earth's native EMF field of action. A population of these excited electrons in the retina begins to cause a vibration in the cell membranes of these cells. This wave is called a soliton. I want you to think back to the Energy and Epigenetics 6 blog post here because this is where I first taught you about solitons. Think of them like a tsunami wave riding your cell

membrane. For example, a whirlpool can result from the energy of a soliton. An earthquake is a soliton of the Earth's crust. This happened in Japan's earthquake. A soliton is a coherent wave that forms and it is sensed by the electromagnetic organ of the birds and in you! Solitons can be transformed to light energy in a cell when DHA is present. When DHA is not present you lose the ability to transform these energies and as a result, signal breaks down.
In this way, the energy of the photon is transformed to a mechanical signal in the cell membrane. ***These electrons remain in the triplet state,*** I mentioned above, and because of their charge, they would be highly sensitive to magnetic field orientation of the Earth. This is how a bird "sees its magnetic field" to navigate within its environment. Today we have a fancy name for this process. It is called "*optical detection of magnetic resonance*". It couples the collection of photons and electrons from the sun, to allow birds to see/sense the magnetic field of the Earth. Birds, bees, and butterflies use this to circumnavigate its environment properly. Today all three groups of these living things disappearing. Might it be that they can't navigate the Earth because we have some electromagnetic man-made waves interfering with how their GPS systems works? The story of how that happens is laid out above in the top 3 effects of how a magnetic field affects an electron. These are Nature's laws, not my laws. This means they are not subject to anyone's beliefs. Concepts over precepts. This is how biology works folks.

There are only two things in physics and biology that control electrons or photons from the photoelectric effect. Those things are electric fields and magnetic fields. This is why mitochondria employ both types of fields to contain the light they harvest from food electrons on its inner mitochondrial membrane. You might want to remember that between cytochrome 1 and 3 the Q cycle works by the addition and subtraction of electrons to ubiquinone. Did you know that ubiquinone absorbs

Ultraviolet light at all frequencies? The video below shows you how this process occurs. The type of light we are talking about locked inside a mitochondrion is in the infrared range (IF). IF light has a longer wavelength, therefore, it has a different color and different energy and a different momentum. You should recall that IF light charge separates water into an exclusion zone and protons based upon Pollack's work. When a mitochondrion uncouples oxidative phosphorylation heat is released for thermogenesis.

Light photons ride on the back of electrons. Photons and solitons ride on the inner mitochondrial membrane allowing them to move to and fro properly when circadian signaling is optimized. When the soliton is not working well quantum tunneling of electrons won't happen properly because energy flows are disturbed. This membrane is surrounded by water in normal conditions. The infrared heat released, naturally, charge separates water to provide the energy for these molecular actions. ATP is not needed. (LING ALERT)
Why is the magic of water so important to our mitochondria? Hydrogen protons is the short answer.

Consider plants use of IR heat: to synthesize one molecule of glucose by photosynthesis in plants, 24 electrons must be removed from water molecules by sunlight alone. These electrons are held by the redox potential of oxygen (+0.82V). They are pumped uphill to carbon atoms that are partially reduced to a carbohydrate with a redox potential of -0.42 V. The potential energy difference is 1.24 volts. This change in free energy is in the positive direction. The result of this energy transfer creates 2870.2 kiloJoules of energy. This is an astounding amount of energy capture when you understand the quantum dance of the sun's photoelectric power on water hydrogen bonding network.

The electrons from food carry the infrared heat of the sun to our water around mitochondria. This has massive effects on how protons can move in the ATPase. *Electromagnetic energy is stored in water and becomes a repository of energy for life.* ***Water becomes essentially liquid sunshine for any cell.*** It does not require ATP. Water is able to hold the power of the sun or any environmental EMF just as a battery does. This is why water is located directly adjacent the mitochondrial membrane in the native EMF environment. It captures the sun's photoelectric energy. When you live in a highly energized non-native EMF environment water is missing because of dehydration. This is why trees and plants only need water and sunlight to grow. They don't need food, as animals do, because they spend 100 percent of their life connected to the ground and the Earth's magnetic field and 100 percent of their life with their canopy in the sun. Animals do not live this way. They are designed to live disconnected from the Earth and sun so they need different systems for energy flows. Photosynthesis and oxidative phosphorylation both charge separate water early on in their respective processes. It is their common tie. Animals, therefore, they need different ways to manufacture the electrons from the sun's power to split water into electrons.

We split electrons using light in our CSF to generate the DC current underneath our myelin layers. This is the DC current Becker found in his research. The ability to take a light signal and split water is made possible by DHA in cell membranes that line our CSF cavities in our brain. We have 4 ventricles in our brain. It turns out cavities filled with water are great places to store energy collected from one source and transform it to another. **Cavities amplify standing waves.** Just think of how a guitar works. Its cavity amplifies the standing waves on a string when it is struck. The same thing happens in your brain's ventricle with respect to the Earth"s magnetic resonance called the Schumann resonant wave you learned about in EMF 1. It is a standing wave that

has a frequency of 7.83 Hz. This is why the alpha rhythm in the brain is also 7.83 Hz. The CSF in our ventricular cavities is designed to amplify this signal. CSF is 99.9 % water by volume.

Water is capable of breaking symmetry because it imprints the virtual quantum field of photons on its hydrogen bonding network. The changes in the hydrogen bonding networks physical bonds in such a way to account for in more dense water structure containing more electrons. *Water conforms to the environment it is placed within.* This is what makes water quite special. These electrons are delivered to the interfacial water below myelin and above the cell membrane of the axon. DHA links these two fields of energies at the interface of a neuron's cell membrane and the extracellular space where water is also present. Any DC current has to have an orthogonal magnetic field associated with it. That magnetic field affects DHA's pi electron cloud. DHA is capable of turning that magnetic field into an electric current or light. The pi-electron cloud controls how the photoelectric effect can or cannot work with sunlight or artificial light. It can do the reverse as well. The magnetic field we are in on our planet, directly affects the interactions between sunlight, DHA, water, and your cell membranes. This is precisely how the water vortex in your CSF cavity reverse their flow patterns between the night and day cycle. Cell membrane chemistry is all about energy information transfer in some fashion. It is your job to realize this mode of action. Cell membranes act as an antenna to sense the electromagnetic environment we are in at present time. A water-filled cavity is a great place to generate spherical standing waves which have identical wavelengths. Identical wavelengths can tune a guitar easier than if we have a bunch of waves with different vibrations if we are trying to make good music. We think of waves as moving through CSF water, but these waves stand still in the water. This is why water is like a Faraday cage for life. The crest

or amplitude of the wave still has the energy within this standing wave. This mode of action is how a guitar or violin make sounds from the standing waves on their strings above their cavity of air in the body of the instrument. Your skin and brain work on the same physical properties. Skin and brain are both derived from the same tissue in an embryo. It is time for you to realize it and understand how it connects you to the full spectrum sunlight.

Photosynthesis is where evolution initially came up with the idea to use UV light to generate a DC electric current via the photoelectric effect to harvest the electric power buried in the shortest wavelengths of sunlight in the morning and during the day. In this way, energy from the sun can be stored and moved in water; this makes water a repository of electromagnetic frequencies to create an electrical battery to do the work in a cell. This DC current can separate water into hydrogen and oxygen naturally. Hydrogen is transformed and used as the signaling molecule in mitochondria biology, and oxygen contains electrons and is capable of creating very powerful magnetic fields around mitochondria in animals. Oxygen molecules have recently attracted attention because of the relationship between the molecular magnetization and crystal structures, electronic structures, and superconductivity. O_2 is critical in respiration but it has many magnetic properties life can utilize in complex ways. Oxygen is paramagnetic, so it helps speed electron flow in mitochondria, like what happens in leaves and in our eyes. When oxygen is present in higher amounts compared to the power in the light we can make oxygen toxic by making excessive amounts of singlet free radicals and not triplet ones. This is what happens when many antioxidant supplements are used when people do not get AM sunlight exposure on their skin and within the eye clock. Oxygen is the only one of the simple diatomic molecules, and one of the few molecules in general, to carry a magnetic moment.

In Tensegrity 2, you learned about magnetic moments. Water also plays a role in magnetic memory. The OAP's are the key to proper assembly of the magnetic moments in cell membranes and are the core problem in diseases like cystic fibrosis, Multiple Sclerosis, and Type 2 diabetes. These are all diseases that begin on surfaces and involve light and oxygen in very counterintuitive ways. Very soon you are all going to learn how important magnetic moments are in generating small voltages within a cell membrane.

This set of events makes understanding why solid oxygen and mitochondria have become linked particularly interesting. *Oxygen has a very powerful magnetic order.* When oxygen is lacking, it can affect other metals, like Mn in mitochondrial cytochromes. These membranes no longer work well. They begin to resemble bacteria or archaea cell membranes. This stimulates the use of glycolysis and the PPP and not the TCA cycle. Hypoxia-tolerant animals naturally have low membrane permeabilities. These are animals that do not rely on using oxygen as their terminal electron acceptor to generate huge amounts of energy for their life cycles. Humans have to have oxygen for their terminal acceptor to make electron chain transport work. Cell membrane permeability is severely altered even more during hypoxic conditions to liberate protons and electrons from the amino acids as they are broken down. This is why leaky gut conditions are always tied to alterations in oxygen and light levels in the lumen of the gut. Research in mammals has implicated hypoxia-inducible factor (HIF) as a key regulator of gene expression changes in response to hypoxia. I spoke about this in the CPC blog post on brain cancer. *This implies epigenetic regulation is tied to the proper magnetic sense in mammals. Magnetism in living things is increased any time surfaces are cooled because of its relationship to the Curie point. Temperature going higher lowers magnetism and favors H^+ hydrogen bonding. When this happens in a plant photosynthetic capability is decreased.*

Mitochondria make O_2 from food electrons while passing H+ via the ATPase and the cytochrome proteins. All food electrons have an ultraviolet code or frequency built into them. Oxygen is considered a 'spin-controlled crystal like molecule' (qubit) that displays unusual magnetic order. Early in evolution, in the first two kingdoms of life did not use oxygen because none was available. They, however, excreted oxygen as a waste product. This build-up of oxygen in the oceans fueled the formation of DHA in algae. These algae became more sensitive to the Earth native magnetic field because of oxygen within the DHA. At the Cambrian explosion, life got more complex because eukaryotic cells were formed from the merger of two distinct cell lines because of a huge surge in energy into life forms. I believe a coronal mass ejection drove that process of fusion using electric and magnetic conduction. Eukaryotes are organized differently than the other two kingdoms of life. They have cell membraned outside and inside of them loaded with DHA. In the eukaryotic kingdom, life became able to utilize oxygen in new ways. Oxygen was toxic to the other two kingdoms of life, but it was jet fuel to eukaryotes. You are a eukaryote. Oxygen allowed for the formation of DHA in the oceans in algae and fish evolved in water and ate algae. This gave seafood a unique electrostatic and magnetic footprint on a molecular basis. This allowed eukaryotes to assimilate and order DHA into their cell membranes in a specific quantized fashion. This specificity is built into seafood and not into supplemental forms of DHA. A lack of electrical and magnetic specificity creates chaos in a cell. So where you source DHA matters in the eukaryotic kingdom.

DHA allows you to turn sunlight into electricity and electricity back to light on cell membranes. We do this in ETC transport using microbial machinery in the photoelectric effect. Anytime light is converted to an electric current, a magnetic field is also generated naturally. This magnetic field can affect our ability to make triplet or singlet state

free radicals. The presence of oxygen and ultraviolet frequencies can alter this ability in many novel ways. When this occurred, life was able to capture energy more efficiently from sunlight and the magnetic field of the Earth because of the pi electron cloud in DHA. It was also augmented by the reduction of molecular oxygen in mitochondria. The formation of DHA allowed for more accurate circadian signaling to occur from our outer cell membranes to our nuclear membranes as outlined above. This gives eukaryotes unprecedented control over growth and metabolism compared to bacteria or archaea. These actions directly connect environmental signals to our cell membrane chemistry anywhere a cell membrane is designed to be. It allowed the cell membrane to signal both to the mitochondrial DNA and our nuclear DNA for the first time in evolutionary history. This built signaling complexity. This signal is primordial to coupling growth and metabolism at its most fundamental level. This is why circadian signals are more important than food or exercise for wellness. Wellness is about optimized circadian signal specificity and sensitivity.

This is why animals over 600 million years in the eukaryotic kingdom evolved more complex brain's loaded with DHA in their cell membranes. The more the animal has the more complex it can become biologically. This points out why lions who eat meat never evolved the brain of dolphins, whales, and humans. It also points out the fundamental difference between chimps and humans. Humans evolved around the sea. Other primates where isolated from it. Humans, further separated from primates, by later evolving the adipocytes and subcutaneous fat stores to help more accurately assess electron accounting within their cells. ***Adipocytes are where humans keep their stem cells to regenerate.*** Less simple life forms, like plants, did not evolve body fat, because they codified all their energy needs in light and water only. They did not have the ability to codify environmental signals in neural cell membranes because they had no access to DHA. A life that

moves across the earth (animals), not connected to the earth, sun, or water 100 percent of the time, got “the energy of the photoelectric effect” in food and other ways. ***The use of sunlight, water, collagen, DHA and magnetism to accomplished this task.*** Life was quite smart tapping the potential of water and the Earth’s magnetic field for electrons in this fashion. This points out why the hydrogen bonding network of water is critical in understanding magnetism. Since water is naturally paramagnetic, it changes its hydrogen bonding network based upon the magnetic field it is found within. This means that our mitochondria alone can alter the water chemistry around themselves because mitochondria make their own magnetic fields when there ATPase rotates in the inner mitochondrial membrane. These membranes also have the largest electric fields in membranes as I laid out here. This is due to the action of electric currents and the reduction of oxygen at its terminal step of electron chain transport. Nothing in the universe has the ability to transfer energy as well as water does or this easy to create complexity by increasing electron density within its structure. This helps explain why water makes up 71 percent of the earth surface and most of our cell’s insides as well. Coincidence? Doubtful.

WATER AND OXYGEN

The liberation of oxygen from photosynthetic plants and bacteria also allowed more complex life forms to evolve using more complex energy transfers. These waste products of two kingdoms directly allowed DHA to form in the oceans 600 million years ago. The more complex things become morphologically in an organism as evolution has evolved, the more brain one needs to control all the circadian systems tied to the environmental signals. The more oxygen in seawater meant the more electrons would be able to collect from our environment from many sources like food, the sun, water, and our magnetic field. It also meant we could create more electrons from the endogenous electric and magnetic field in

each mitochondrial in our cells. This slowly allowed DHA to build up in sea plants like algae. Fish began to eat these plants and use DHA to build their own neural systems. The more life that evolved into the sea, meant the world's oceans would be more green, and not blue. Green seawater = DHA, Iron, and O_2 content. Blue seawater = no DHA, no iron, and low O_2 content. Low o_2 content means less magnetic energies can be utilized. **This is why hypoxia is toxic to eukaryotic life at a fundamental level.** The colder the water meant the higher the electron density would become due to the hydrogen bonding network; this directly correlates to the amount of energy available for life forms to tap for evolutionary progress because it adds energy to the C^2 part of $E = mc^2$. This is why the Cambrian explosion occurred 600 million years ago. Massive energies where present and life used all of its collection methods to fuel forward evolution in endosymbiosis. It should also be no shock to you, this is when DHA and eukaryotes showed up in the evolutionary fossil record.

To date, DHA has never been replaced in this evolutionary time frame once for its use in cell membranes in the eukaryotic kingdom. The presence of DHA greatly enlarged the energy pool available to the biosphere on earth, as it evolved slowly over the last 600 million years. DHA is a marine chain story. These energy transfers are what living creatures are interested in it. They are not interested in macronutrient ratios or beliefs about food that modern man has today. **Optimal wellness is not about ancestral food ideas, it is about being able to harvest proper light signaling between cell membrane, mitochondria, and nuclear DNA to maintain the organization and order in a cell.** DHA and water are critical to this ordered signaling pattern.

You can not properly sense circadian signals without DHA if you are a eukaryote. It becomes the only substance from food that really matters. DHA must come from a natural seafood source because it must be in the SN 2 position. That specific

position allows it to electrically and magnetically enter the brain for use in our cells. I showed you earlier how that magnetic order occurs naturally. Life uses these laws of nature 100 percent of the time even when you are blind to her magic. When you live outside the laws of nature, you first get ill, with a neolithic disease, and then you die of one earlier than you should have. The further you stray from seafood the less well you can decipher circadian signals. This is when disease arrives in your body.

WHAT ELSE DOES MAGNETISM EFFECT? SLEEP

Magnetism has a huge effect on electrons. Electrons control the phenotype of how chemistry works everywhere in the universe. This includes your cells. Magnetism acts like a giant invisible circuit board for the currents emitted from DHA. Magnetism is tightly coupled to cold temperatures naturally. Colder temperatures increase the strength of magnets and their magnetic field. Why is that? Cold can have an effect on magnetism because cold can have an effect on how fast or slow electrons move. This links the sun's power to the magnetic field of the Earth. It also links the Schumann resonance strength to the sun. When the sun is shining, the Schumann resonance is strongest. When the sun is shining the Earth's magnetic field is weakest. This implies that the Schumann strength varies inversely with the magnetic field's strength. ***At night time, the magnetic field is stronger on Earth than it is when the sun is out because of the relationship of temperature to the Curie point. When surfaces are cooler we become capable of using more of the power stored in sunlight. This is true in plants and animals.***

WHY SLEEP APNEA REALLY HAPPENS:

This allows for *magnetic repletion* of protons and electrons at night. I spoke about this in Energy and Epigenetics 4. **This is**

a process were electrons release their energies to the proteins in our tissues at night. This lowers electrons energy levels at night during autophagy within sleep. This energy transfer, in turn, raises the potential energy contained within our tissues as we sleep. Our tissues are made of protein polymers fully capable of being reduced at night time. When proteins are reduced they are filled with electrons and they can make an exclusion zone in water. This increases the battery potential of water. Water absorbs at 270nm and in the infrared range.

This energy transfer lowers our ubiquitination rates when things are working optimally. The Ubiquitin Proteasome Pathway (UPP) is the principal mechanism for protein catabolism in the mammalian cytosol and nucleus. Remember we are made of protein polymers, which act like forms of condensed energy. When you do not have to recycle your protein because it has retained its energy thermodynamically well, you save energy used to replace it during night time. **Magnetic fields can generate electric currents at night to re-energize our protein polymers when sunlight is absent.**

This is why sleep is restorative to our health. No one in ancestral health can tell you why sleep is restorative because they are blind to how electrons work with magnetism in the absence of light. This lowered energy state occurs simultaneously when we release all of our anabolic hormones from 12-2 AM from our pituitary gland after four hours of dark. I spoke about this in detail in Cold Thermogenesis 7. The release of these protein polymer chemicals are tied directly to the stronger magnetic field strength *we sense* during sleep. If you cannot sleep you can not sense it and you can not add electrons back to your protein polymers. If you lose enough electrons it eventually causes protein misfolding and disease.

*It is the **motion of charged particles**, usually electrons, around a nucleus, that produces life's magnetic fields.* Cooling a metal can make the motion within less random, thus allowing more atoms to line up with each other. This creates magnetic order. Cold increases protein polymers magnetic order. This allows the atoms to condense even more. As matter condenses it because more energy efficient. Life is all about condensed matter and its interaction with quantum optics. Condensed matter is just another form of energy according to Einstein's mass equivalence equation. *When matter condenses this increases the magnetic field of the material becoming denser.* ***This condensed matter is a protein polymer in life forms.*** *Condensed water also has a higher electron density and a specific amount of protons with varying spin states.*

Cold temperatures also increase the gravitational force in all things that contain a mass, by condensing it. Cold also links to melatonin production in the brain. In fact, this is why melatonin lowers our body temperatures at night when we sleep. Melatonin release from the pineal gland and serotonin release from the gut is tied to calcium ion fluxes in both tissues. The Earth's magnetic field directly impacts calmodulin and Ca^{2+} ion movements. I detailed this in Energy and Epigenetics 4. Now I am going to show you how we found out this was the case. Ishido (2001), examined the melatonin-induced changes in different biochemical pathways, was able to deduce that the effect was traceable to the fact that weak magnetic fields interact with the signal transfer in these pathways. They did this using *ion cyclotron resonance studies*. These were the experiments I mentioned in Energy and Epigenetics 4. This is why our cells use melatonin to lower our body's temperatures at night. Melatonin drops our internal temps to increase the effect of microgravity within our cells to *offset the effect of light* on our matter during daylight. This living matter is a protein polymer capable of expansion

and condensation. Cortisol is the hormone that de-energizes matter to decrease its microgravity to wake us up in the AM. This effect occurs on collagen and water. Cortisol **removes electrons** from the collagen backbone, and the protein swells because it unwinds from its triple helix conformation. AM sunlight provides photonic power from the sun that re-zip that collagen once we wake up.

Melatonin acts by lowering the kinetic energy inside the cell by slowing electrons down. This increases the potential energy in the cell by structuring the hydrogen bonding network of intracellular water. When water is cooled it has a higher density of electrons in it and has a higher oxygen tension. Higher oxygen tensions mean we have larger magnetic fields within our tissues to restock our cells with energy from electrons. This potential energy can be liberated by **visible light or by infrared light** to build the exclusion zone of water. This increases the mass of the cell and lowers the effect of microgravity within the cell. This is why a cell is more oxidized during the daytime when the sun is perturbing our protein polymers and more reduced at night time. When a cell is more reduced, the intracellular water has a higher density of water which contains more electrons within its 3 D molecular structure. This is why optimal health is always linked to a redox potential. The more reduced our protein polymers are the higher our redox potential is. Microgravity within a cell becomes a function of its overall charge. DHA links us to these charges.

Light causes many effects on our condensed matter (protein polymers and water) during daylight. The frequency of sunlight is the key metric in life. With light's presence, cortisol rises and unzips collagen's triple helix. This increases our mass and this stretch of our tissues wakes us up. This hormone signal is linked to the action of removing electrons from collagen and water to wakes us up in the brain by altering water chemistry between two capacitor plates in the

cell membranes of our brain. Those cell membranes are supposed to be loaded with DHA and other lipids to lower melatonin in the brain. Remember DHA converts electric signals to light and vice versa. **The action of light on proteins and water makes us lose the effect of microgravity, while subtlely gaining mass at a very fundamental level to awaken us. Light has no mass but it does have momentum. Momentum can be transferred to surfaces that light hits.**

Biology, medicine, and the ancestral health movement do not realize any of these mechanisms, because their knowledge and beliefs do not operate at this quantum scale. **Understanding scale is where wellness springs.** Since they do not have a knowledge of this scale, they fail to appreciate these effects. Just because you do not appreciate it, does not mean it is not happening in reality. They have no ability to understand the far-reaching effects magnetism and cold has on cells. *The ancestor of every action in life was born of a thought from this unseen force.* Our thoughts even come from the actions of electrons. **Magnetism is an example of an unseen force that can alter biologic trajectory in many ways.** Biology believes if they cannot measure it, it does not exist. Quantum physics says nothing can be truly measured, therefore it can and does exist. The only thing that remains for biology is to gain the ability to measure the magnetic effects of mitochondria. MEG, EEG, and MRI data already have given us ample information to believe all of our cells emit a substantial magnetic field. So it raises the question for you, the reader; what realm of science do you believe in now? When you understand the scale of how life organizes, do you begin to see why I embrace the quantum scale and why I share it with my readers?

The Earth's magnetic field resembles that of a bar magnet or "dipole field" with an axis tilted about 11.5 degrees from the spin axis. Water happens to be a chemical magnetic dipole. Water, as a dipole magnet, adapts to the field it is forced

to exist in. This is why water in space and water in your cup are not equivalent thermodynamically. The water in both cases still has the same molecular formula, but its hydrogen bonding network is vastly different leading to water's ability to do things differently from an energy perspective. The difference in water in space and on Earth has to make you realize that the nature of water in your body acts differently than it does outside your body by the same mechanisms. In fact, Dr. Robitaille has shown that water does take the thermal shape of life's container. This means that the surrounding electromagnetic fields have dramatic effects on water chemistry in life. MRI's scans show this effect every day in my clinic.

Clearly, life's emulates the 3 legged stool I laid out in Energy and Epigenetics 4. Form meets function in life's design. The Earth's magnetic field strength was measured by Carl Friedrich Gauss in 1835. It has been repeatedly measured since then, showing a relative decay of about 10-15%% over the last 150 years. This decay is not good news when you consider how the environment in the atmosphere has changed in the same 150 years due to the use of non-native EMF in technology by modern man. These energies determine how water's hydrogen bonding networks react to modern electric and magnetic fields. These changes can radically alter the energy flows in our cells which control intracellular signaling. The electromagnetic spectrum of today radically interacts with the Earth native magnetic fields; there is even NASA data that shows it is capable of altering the magnetosphere of the Earth by forcing unusual interactions with the solar wind. This occurs via Birkeland currents I mentioned above.

Today's modern technology allows for escapism from the natural forces that have driven our evolutionary design. Right now this idea is below most of the world's perception because they fail to understand the scale argument. This is why my viewpoint is so at odds with other groups beliefs.

The science you are beholden to dictates the thoughts that are holding your mind captive about how life organizes. Medicine, biochemistry, and ancestral health believe what biology espouses today. I clearly see the world differently, because my scale of observation is different. **Thoughts are absurd by what they seek, but they are great by what insight they bring us.** It is time you see the fallacy of beliefs because your current health maybe tied to those beliefs.

Gravity and cold at surfaces are also tied to longevity in life because a condensed or confined state of mass preserves energy for life. So anyone who says cold is hormetic is clueless about how biology fundamentally works at a quantum scale at surfaces. Proteins are the matter polymers that makes us. **Matter is just a condensed form of energy.** Sunlight is a form of electromagnetic energy that alters the form of all matter. Proteins are the stage that biochemistry occurs upon. The electromagnetic force is the building where the stage is located. If electromagnetic energies are varied for any reason at all, you get a structural response which leads to physiologic changes in proteins. These 3 D molecular structural alterations change what biochemistry is capable of.

This fully explains how the Ancient pathway works in mammals. **This should make you understand how cold thermogenesis works at the smallest scales of nature.** This means the very same protein can have the same chemical and molecular structure (think rhodopsin or melanopsin) but it will act differently based on the environment it finds itself in. The environment changes the charges within the mass of the protein polymers.

Consider how the example of the power of the Earth's electromagnetic field as it is coupled to sun's light. Most have no idea the complexity of the mechanisms at work in our own brain's are linked to how the sun also works with its magnetic fields. This mechanism in our brain is how memory and consciousness are created. It uses the water around and

within microtubules to create these abilities. It also uses the cavities within the microtubules contain to make memory emerge from these interactions. Your brain is able to take visual mental pictures using light photons that have not interacted with any object your eye has seen. Amazing, but check this hyperlink out to show you it happens. It is physically possible and has already been shown to happen in an experiment. Mother nature learned this trick long before modern science did and she created your ability to remember using it. Electrons can carry photons which codify the experiences we perceive, but these "experiences" really do not exist in their true form in our brain. They allow us to make sense of the world and the fields we live in. These are quantum, magnetic, and electric fields that are capable of doing these tasks. It is a fully adjustable existence that develops from these processes, completely subject to the power of the electrostatic and magnetic forces we face in life. The more non-native EMF you tolerates in your life the less memory you will have. Just because biochemical experts and textbooks do not have these mechanisms written into it, does not mean Mother Nature is immune to using them. Quite the opposite, would be true. If you do not understand how the electromagnetic force acts on electrons and photons from the photoelectric effect you really have no way to innovate optimal health for anyone, in my opinion.

I should remind you that food is broken down into electrons and fed into the electron chain in mitochondria. We are designed to break food down into electrons for our mitochondria to use naturally. *Electrons give chemicals their specific chemical phenotype in biochemistry*. Everyone seems to forget the energy of the sun makes all food grow! This energy and information is transferred to the protein polymers that make you up in your mitochondria. The photoelectric effect carries power to energize of exciting electrons everywhere, including in proteins with transition metals in your inner mitochondrial membrane. These energies can be transferred to cells electrically by DHA or magnetically by

electrons. **DHA can change the signal back and forth from light to an electric current.** Electric currents always have a magnetic field associated with them at 90-degree angles. This magnetic force can be used to do work within our cells because it also creates a force.

LET US CONSIDER HOW ENERGY TRANSFER HAPPENS MAGNETICALLY WITHOUT LIGHT

Life began at the ocean sea vents. The water surrounding the vents is very cold. The water immediately adjacent to the vent becomes heated with infrared energy from the Earth magnetic field. The ocean floors are closer to the magnetic field in the Earth's core. This dynamo is capable of melting metal and rock in our mantle to create the heat at these sea vents. Heat is infrared energy. This is a form of electromagnetic energy that does not need the sun to exist. Water absorbs IR heat best. When it does absorb IR, it charge separates water and structures the water to create a battery. We do not need chemiosmosis to do it. Peter Mitchell and biology missed this point because they did not get the scale life operates at. The heat released from the vents allowed the water around them to charge separate. This is how energy transfers occur without light using magnetic forces within the Earth's dynamo. This is how life fundamentally organized at its beginning. It now uses light and magnetism in our mitochondria to build complexity that the first two kingdoms in life could not. And it adapted and evolved from there. We are the result of that dynamo's interaction with matter and life. **Life was born asleep and it evolved wakefulness.** This is why sleep and cold are linked at a fundamental level in humans, even today. The sun has no photosynthetic effect at the bottom of the ocean, which points out why Gerald Pollack's work on Infra-Red energy, in the form of heat, is pretty damn important for understanding the eukaryotic kingdom of which humans are a member.

The biological effects of weak electromagnetic fields on humans have been extensively reviewed by Abraham R. Liboff Professor Emeritus Ph.D., New York University in October of 2013. It is linked in the cites below.

In studying the effects of magnetic fields, Liboff has reviewed many different magnetic effects that life uses. The different components of the cell's signaling apparatus have been probed by cell biologists, with magnetic fields applied instead of the usual added biochemicals or enzymes of homogenized cells. When you homogenize a cell's contents you alter its magnetism. Why? The very act of mixing them increases their temperature and we already learned above that temperature and magnetism are fundamentally linked. A favorite ion to measure magnetic effects experiments is the calcium ion concentration. We spoke about this earlier in the blog. This is a well-recognized variable in cellular activity. Thus, many studies have followed the interplay between cellular calcium and magnetic fields. No other cell type has been studied more for its response to weak low-frequency magnetic fields than human lymphocytes. If you have an autoimmune disease or cancer you better pay attention now. Lymphocytes are critical in both diseases taking root in you. These cells are obtained from blood, with readily reproduced protocols for preparation and culture. Ca^{2+} flux is tied to seed germination in all plants and foodstuffs. *(now think why Monsanto is allowed to do what they are by our government now)*

One technique is to measure the relative proliferation, with and without a magnetic field, resulting from certain lectins that are known to act as spurs for cell division. The degree of proliferation is conveniently measured by determining the cellular uptake of tritiated thymidine. Thymidine is a nucleotide that makes up DNA and is needed in greater amounts when cells divide. In this manner, it was found that low frequency pulsed magnetic fields (PEMF) are able to restore lymphocyte proliferation in aged subjects to levels consistent

with proliferation from much younger subjects. The stimulating lectin, in this case, was PHA (phytohaemagglutinin). This test, normally performed without any specific constraint on a magnetic field, is a key measure of immune response in an individual, a measure that is known to fall drastically with age. So as we age, we lose our magnetic sense (loss of electrons) and this effect is profound on our immune cells. This is tied to the loss of magnetic ability due to the lack of oxygen tension generation in older worn out mitochondria. The same effect happens in those with autoimmunity and cancer. When mitochondria are older, they lose oxygen tensions and magnetic abilities. This diminishes the ability to re-energize our tissues with electrons while we sleep. This is why sharing blood between older and younger animals has such a dramatic effect on the older animals. It makes them younger because they regain the ability to re-energize their tissues with electrons at night. This is why parabiotic experiments have the results they do

The goal for medicine in the future should be to restore this magnetic sense to our cells to allow us to re-energize our protein polymers with magnetic reconnection of electrons. Most of the autoimmune protocols of medicine and ancestral health are electron withdrawing in nature. The only one I have studied who comes close to adding electrons back is the Wahl's protocol for Multiple Sclerosis. Even Dr. Wahl's protocol does not go far enough to re-energize tissues, because it lacks the massive amounts of DHA needed to control electrons that contain the light flux in CSF and mitochondria. You would think these ideas would stimulate better questions to probe these questions in ancestral health but it has fallen on deaf ears.

What is the major reason QED stays in the attic of medicine and biochemists minds?

They do not appreciate that the scale of the quantum realm has different rules of engagement for any experiment. Life seems

magical because it is quantum.
Quantum is simply an experience that is off our human sensory scale, at the moment. That needs to change. This is why most of my bio-hacks are designed to see the effects of the quantum realm and not the biochemical realm.

KEY BLOG POINT FOR ALL: Quantum systems are supposed to be destroyed just by the act of measurement, which brings them abruptly into the ordinary classical world. What most do not realize, is that Mother Nature has figured out how to control several aspects of subatomic particles by the way it created the architecture of the inner mitochondrial membrane and the photosynthetic core in plants. It is time they get that information down. The inner mitochondrial membrane is nature's answer the "quantum measurement problem". Topologic insulators have the ability to measure several aspects of an electron's properties simultaneously. *This is a thought that will make physicists squeamish.* Topological insulators (TI) are currently one of the hottest topics in condensed-matter physics today. As you learned above, **matter condenses in a magnetic field**. Topologic insulators are insulators on their interior structure, but they manage to conduct electricity on their surfaces thanks to special surface electronic states that are "topologically protected". This means that – unlike ordinary surface states – they cannot be destroyed by impurities or imperfections (dopants) like an Intel chip can be.

Moreover, the conducting electrons arrange themselves into spin-up electrons traveling in one direction and spin-down electrons traveling in the other. Such a "spin current" is incredibly useful for anyone wishing to build a practical "spintronic" device that exploits the spin, rather than the charge, of the electrons. This blog just showed you how life can take advantage of spin above. TI's are a critical part of understanding how physics dictates biology at its smallest

scales because they allow for **quantum states to occur at higher temperatures that are wet.** Usually, semiconductors work best in cold and when they are dry. Classically, no one in physics or biology thought semiconduction could be used to organize life because of these two physical limitations. Dr. Robert O. Becker was the scientist who proved that belief wrong experimentally, long ago when he found the Hall current's in bone regeneration. Biology still has not recovered from this misunderstanding. You must follow the data and not the dogma. So why is the Hall effect so important in this story?

Magnetic forces give information about the charge carriers in a material through the Hall effect. This effect is what Becker found in collagen in his experiments. **Cortisol destroys the Hall effect and it increases light release in collagen just like we see in the auroras at our poles.** Melatonin increases the Hall effect in our cells because it lowers temperatures to condense matter found in collagen. This controls the **flow of light** in the syncytium of cells by slowing it down. Light's speed can be altered by electric and magnetic fields. This is why a photon created in the sun's core can take millions of years to escape the strong electric and magnetic currents of the sun's outer layers. This action has massive implications for diseases like Multiple Sclerosis. This will be the subject of the next blog.

The idea of a topologic insulator will have little effect on medicine and biology today because they do not appreciate the magnitude of these scientific experiments already completed. Topologic insulators are all about how surfaces work with light. A quantum biologist or biophysicists will become very intrigued by these ideas. Biology is a science, based in the classical world that works on the electrons and protons of the chemicals in DNA and RNA. Their scale is no longer my clinical scale. We won't make any progress on our "guiding theory" or "epistemological foundation" in biology until they realize

their errors and begin to ask questions using the quantum scale of actions. **There are very few people in our world who ever ask the right questions of science. The ones who do, affect science and our future most profoundly.**

To understand magnetic condensation further watch this video I did a while back: How do you stabilize your personal magnetic field at night?

SUMMARY

I am not surprised that our language is incapable of describing the processes occurring within the atoms. Our language for was invented to describe the experiences of daily life we all share. These experiences consist only of processes involving exceedingly large numbers of atoms that are condensed and interacting with the 4 forces of nature simultaneously. It is very difficult to modify our language so that it will be able to describe these subatomic processes. Words can only describe things of which we can form mental pictures in our mind. I had to teach my mind to think this way over ten years ago to wrap my mind around these concepts. This ability is a result of the daily experience of collecting experience and then stringing it together to get nature's wisdom. Fortunately, mathematics is not subject to this limitation of communication and this is why math is the language of nature. Most of us cannot understand this language well enough to understand how nature works. My job is to scale your mind to this level *without the math*. It is an incredibly difficult task. This blog was re-written over 100 times to try to make it understandable. Physicists and mathematics have made it possible to invent a mathematical scheme, called the quantum electrodynamic theory to describe this scale for themselves. This framework seems entirely adequate for the treatment of atomic processes. **Where it fails, is that it won't allow for visualization of the concepts.** Visualization

is how humans appear to learn best. This problem of scale is tough to overcome. We must content ourselves with two incomplete analogies in order to make sense of the quantum world—the wave picture of matter from math and the "corpuscular picture of matter" we all see daily with our eyes. My website is trying to create "a synkinesis effect" of the two bad analogies to make sense of how life organizes for you to understand.

Magnetism is one of the forces that fundamentally forms fundamental tensegrity to condense matter in all of our cells on this planet that are alive. It is the third part of the three-legged stool. It is one of the more complex aspects of biophysics that life organizes around. It acts as a circuit board for the massive electric currents from DHA in your cells.

Most humans are innately aware of the existence of fundamental laws of nature. These are the laws that define our material existence of our universe that we physically inhabit and that currently define our conscious existence. But what humans fail to realize is that how these laws, when singled out for dissection seem so contrary to our common sense. I am slowly reminding you that the rules of life follow the physical laws who are their counterpart, even when your beliefs cause you to think otherwise. When you begin to explore the microcosm of our quantum reality you begin to see how the macrocosm is constructed and why things work in the fashion they do. It shows us at a deeper level, under all the subjectivity and paradox that life seems to hold, we can always find the bedrock of objective and concrete rules to be a beacon for us to follow.

They key, however, is knowing where to look for them. Scientific objectivity is derived directly from the unwavering and unchanging laws that govern physics. This allows us to feel secure in drawing inferences and conclusions we draw from them to build our worldview beliefs upon. Today, we are

beginning to realize in healthcare some of our beliefs have allowed us to stray far from the epistemological foundation of the laws of physics. *The result of this random walk away from nature is why today's chronic diseases exist.*

The progress of science is an excellent illustration that man must lose his soul before he can find it.

The fourth and final way magnetism effects life will get its own blog down the road. It is very complex and the most interesting magnetic effect that life uses. ***The geomagnetic field maybe the ausfaher for the DNA blueprint of the life.*** I believe the geomagnetic field is deeply involved in the living state. Many modern scientists do not believe life is magnetically derived because a magnet does not stick to our body. But physics tells us all organic matter emits some type of magnetic field according to MEG data we now collect in our clinics. Prior to ten years ago, we have no way to collect the body's magnetic fields to know that they do exist. Now we do. Biology still does not understand now that this magnetic field presence means there must be an associated electric field. This is required by Maxwell's laws of electromagnetism. Furthermore, we all need to understand how this magnetic field sets the origins of order for the morphology of proteins that are transcribed from nucleic acids. How mitochondrial DNA and nuclear DNA speak is directly tied to the electric and magnetic fields in cells and from our nucleic acids. These actions become organized and are fundamentally changed by the ionization energies in the associated electric fields of these magnetic forces. Ionization energies are tied to the addition and subtraction of electrons in proteins. This is how proteins shape changes in a compliant design mode. Shape change alters protein thermodynamics. When thermodynamics are altered, then

physiologic ability changes and begins to explain how life can do all the different things it can do.

You need to emit a magnetic field to get these objects to organize within the water. Water is a magnetic dipole that imprints this information in our hydrogen bonding network. Water is highly reactive to any magnetic field it is placed in. We do not stick to a magnet place upon our skin because of the scale of the scale of the magnetic effect is way below what we can measure today. Just because you can not measure or observe it does not mean it does not exist. Water, however, is very reactive at small scales when it is in a magnetic field. MRI data proves this 100% true. Consider when one field is very small in relation to the other no observable attraction may exist to your eyes or experiment, but a quantum one exists in water's hydrogen bonding network.

You learned long ago in EMF 1 about the Schumann resonance is directly related to the alpha rhythm in the human brain on EEG. The Schumann resonance is a standing wave generated by the Earth's magnetic core. That standing wave resonates with the hollow cavities in all life forms on this planet. All brains in all mammals have very different shaped cavities both in their bodies and in their brains that propagate resonant frequencies. All brains are surrounded by water in the form of CSF. This gives the water or air within those cavities a specific frequency and resonance that is the core foundation magnetic field that ***set life's morphogenic fields*** to direct development. This is very similar in design to electrosonic electrolysis or photoelectrochemical water splitting.

The geomagnetic field *acts as a universal overseer in two ways, not only keeping all organisms phased into the daily solar cycle but also working continuously to maintain homeostasis at the cellular level by controlling the behavior of electrons and photons in our tissues.*

A young person filled with wellness should break their mirror early in life. Sometimes we can't see what's right in front of us, because it's behind us, and we're looking in a mirror. Mirrors do some things to light we rarely see but science has observed.

It is not food or exercise that is critical……it's the AM light that controls your circadian signaling that dictates the life your capable of.

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