Energy and Epigenetics 13: Quantum Water Chemistry

Readers Summary

1. Does electron exchange make the world go round?
2. Are you addicted to the things that nature does or man taught you?
3. Do we only command nature when we obey her rules?
4. Videos to illustrate how water chemistry works in us.
5. Did I just cross “the” line, or did I just cross yours?
6. Where you see food, why do I see electrons and photons?

All science is based upon constant discovery. When you discover something, it becomes a new jumping point for the next journey.

The water on earth came from our sun. You might be shocked to find out that water is formed in large amounts while a star is formed. It shoots water jets out of its northern and southern poles while it is forming. That star burning atoms in a nuclear heated stew is what produces water in our universe. It appears that the water in our solar system may have come from our own sun when it formed billions of years ago.

Water’s role in the quantum cell: semiconduction

The picture I am painting for you shows how all the parts of nature fit together to animate life. In Energy and Epigenetics 4, we laid the foundations of the three forces of nature (the big three-legged stool):

1. **The photoelectric effect:** Photo-Electric exchange is an indisputable scientific principle, not a theory,

according to a “dude” named Einstein.
2. **The electromagnetic force:** The strongest force in nature because its range is infinite and power vast over all atoms carrying a charge.
3. **Water chemistry:** Today’s blog is on how water performs its magic in its interaction with collagen in “a quantum cell.”

Today we are going to weave how those three basic fundamentals of nature got thrown into a recipe to make a quantum cell. How “Lady Evolution” assimilated her recipe for life is 100% quantum magic. It is time you begin to see something that you have been blinded to your whole life because of how biology put the “wrong words” in the cross word puzzle of life. The fourth part of the equation is what is buried in our DNA and RNA, with respect to water chemistry. This is the one biology knows only “a little bit about.”

Our nucleic acids code for proteins that have the rare ability to capture electrons and photons and usurp their energy and the information they carry. **Nucleic acids are surrounded by water in their native state.** Rarely are these proteins studied in their native living state. This is why biology misses the big picture that QED paints. When you understand the importance of water, you begin to see the biggest confounder in all published studies on biochemistry. **None of the modern researchers control for the lack of water around these structures in a cell when they report their data.** This is HUGE oversight if you’re following at home. This should make you question all their beliefs. I know this is why I question them now and have for a decade.

It is like they all do not realize the brain and spinal cord of every mammal is surrounded by water. **Our blood is made up of 93% water! How can water not matter to biochemistry?** How can you homogenize a cell and discard the water to study the remainder left in a cell and say this is how biochemistry works? This is what modern day biochemists and organic

chemists do. As a matter of fact, biology is still relatively clueless as to how water alters the electromagnetic footprint of RNA and DNA emissions. Yes, you read that correctly, **nucleic acids emit electromagnetic signals into water**. It is these non-ionizing frequencies where life's instruction manual begins.

How electromagnetic signals from DNA and RNA can cause disease

16th-century physician Paracelsus should remind modern day biology researchers, "*It is the dose that makes the poison.*" Determining the appropriate frequency or dose of EMF to test and deliver that correct amount of information and energy and electron spin to the right part of an animal's cell at the correct time is often crucial to the experiment of how life is animated. Today, **modern biology is under the false assumption that the low frequency EMF radiant bands cannot cause disease because these energies do not have the photoelectric power to strip electrons from tissues like cosmic or X-ray radiation can**. These rays of energy can warm cells, boil water and stimulate chemical reactions, but they cannot strip electrons away from atoms or damage DNA.

Dr. Pollack has already showed in his research that these rays separate water into positive and negative charges. Light alone ionizes water in the entire universe. It is not a biologic law, it is a natural physical law found everywhere. Yet biology does not yet see this significance. They continue to believe these frequencies have no capacity to "mutate genes" directly, and thereby no simple and direct means of initiating cancer or other neolithic diseases are possible.

Implicit in this belief is the assumption that to get cancer or illness you must have a mutated gene. This is what we call genetic determinism. What they miss is that **genetic**

expression is altered by the electromagnetic signals coming from RNA and DNA and the non-ionizing frequency EMF bands do change this information processing that occurs in the hydration shell around our nucleic acids. They are not studying this aspect of the communication system because they do not understand the physics of biology. Nor are they studying hydrated electrified proteinswith the lower frequency bands and what it does to water chemistry around life's semiconductors.

The importance of water for your redox potential

The primary and secondary structure of proteins are all controlled by nucleic acid codes. The tertiary and quaternary structure of proteins is the domain of epigenetic modifications of non-coding DNA. **The motion of electrons and protons in the hydration shell of nucleic acids is how information is decoded for a quantum cell**. This is where the action happens for most Maxwell Demon proteins coded by DNA. This is how life skates within the Second Law of Thermodynamics. *The redox potential is the measure of "the current of your electric charge" in your semiconductors and coming from the battery of life, which is water.*

The "electron dance" makes the proteins of life come alive and dance with joy. Without electricity your coffee maker makes no coffee. **In cold, you preserve your charge on your semiconducting batteries. When charge drops, oxygen drops, and you drop from disease.**

It is kinda funny that by nature and by her design, this also allows for a normal seasonal decline in charge. In the summer, the photoelectric charge in electrons is greatest. In winter, it is not. So what did nature decide to do to make life's biochemistry work? **She decided to use the solvent, called water, to extend her "lack of charge" in winter to all**

the proteins and their hydrogen bonding networks in your body during winter. See, in cold temperatures water has more dissolved oxygen in it. More O2 means your mitochondria do not need to generate high levels of ROS to work well. This means that life can be powered as well in winter as long as ATP is present from foods like fat and protein. (It turns out fat and protein deliver four times more ATP than carbs that grow in long light cycles.)

Cold water has a lot of reducing power contained within it because more electrons are present, and as such, these electrons can deliver massive reducing power to a lot of oxygen in mitochondria to offset the power loss of photons from the sun from summer. In this way, **your battery works in heat and cold when the system uses semiconduction as its basic cellular framework**. Guess what? That is precisely the recipe Mother Nature used in you. That assumes, of course, you do not screw with her design with your modern beliefs.

EMF's affect on brain physiology

It is becoming clear that radiant energy need not penetrate the human brain to mutate genes to have a true biological effect on it.

A cellphone user might experience changes in physiology that have nothing to do with the ionizing capacity of the electromagnetic radiation it emits. **Those physiologic changes might have to do with what cell phone radiation does to water in a cell**. Once you understand water, you have to ask better questions of yourself. Might a cellphone leave a physiological mark on the brain through a yet unknown mechanism? I think you all know that answer is yes. A thermal camera shows us the body's reaction to non-native EMF because blood flow is increased to that area to offset the loss of energy that can be delivered by water in the area irradiated. **Remember that blood flow contains 93% water**

loaded with electrons and protons to replace the black box radiation lost to the technology used.

A recent study in 2011 by Nora Volkow published in The Journal of the American Medical Association (JAMA) has raised another unusual possibility. In fact, **her data links the loss of energy to a simulataneous increased glucose metabolism states in the brain**. Volkow is a brain researcher who is director of the National Institute on Drug Abuse in Bethesda, Md. She recruited 47 people and placed an "active" phone next to one ear (the phone was on – generating radiation, but silent so that Volkow could eliminate the effects of sound and conversation). She then used a specialized brain scanner capable of detecting alterations in glucose. It turns out that **cell phones open the blood-brain barrier to make it leaky and then up-regulate carbohydrate metabolism in the adjacent brain cells**.

Dr. Allan Frey showed this effect in the 1960s and 70s. When parts of the brain are activated, brain cells first swell and then begin to metabolize glucose at a ***very increased rate***. Volkow's scanner was equipped to detect even marginal changes in glucose metabolism.

Volkow's team used two Samsung cell phones (model SCH-U310), transmitting and receiving CDMA signals, with a maximum specific absorption rate (SAR) of 0.901 W/Kg in the head. That is substantially lower than the U.S. FCC's limit of 1.6 W/Kg for hand-held cell phones. Surprise! Here you can see the lower dose becomes the toxin, if you are paying attention for it. Unfortunately, not many are paying attention today … except a few people like Volkow.

Moreover, when she published this, it caused a firestorm because her findings were like a giant Einstellung effect on modern science. These findings all lead to alterations in a high stressed state where excessive glucose use becomes tied to high lactate/pyruvate ratios in cerebral microdialysis

studies. These are the effects biology must begin to look at more closely to rethink their current truths with respect to non-native EMF's.

Would you like some more irony added to the story we are unfolding here? The hoopla that surrounded Volkow's work in 2011 completely obscured the fact that for more than a decade many others, notably Peter Achermann's group at the University of Zurich, have shown similar types of electromagnetic radiation-induced changes in the brain, as well as much more.

The same was true of Allan Frey's work on making the blood-brain barrier permeable with just the use of non-ionizing electromagnetic radiation. All of these things are beginning to mount and point to a very inconvenient truth for our species, governments, and for manufactures of WiFi devices. Like Volkow, Achermann used PET scans to monitor brain activity. He too placed an antenna on each side of the subject's head and activated only one; Volkow used two cell phones. There were some differences, of course. Achermann used a GSM signal for 30 minutes, while Volkow used a CDMA phone for 50 minutes. More importantly, Achermann **saw changes in cerebral blood flow while Volkow saw them in glucose metabolism.**

Both reflect brain activity with glucose impact considered to be the more sensitive indicator of what is going on in the brain. Beyond showing changes in blood flow and EEG, Achermann has also shown that a brain "excited by cell phone radiation" manifests sleep differently. Working with his mentor, Alexander Borbély, an internationally respected authority on sleep, Achermann published his first cell phone sleep study in 1999. When they published a follow-up study in *NeuroReport* the following year, the journal commissioned a commentary to accompany their paper.

> *"These results show that even a short exposure to EMFs emitted by cellular telephones can affect brain physiology,"*

the editorial cautioned.

Achermann expressed some surprise that no one in the media had contacted him about the Volkow study. Achermann and Sarah Loughran put together a joint statement on how it relates to their past work and that of others. In 2005, Loughran, who is now a post-doc in Achermann's lab, was the first to publish support for Achermann's original sleep study with Borbély as part of her doctoral dissertation in Australia. The statement does not hype their results; they say that the consequences of the increased brain activity "remain unknown," which is pretty much what Volkow said, too.

The real wild card in this and the person who ties the entire story together is Dr. Mina Bissell. She is credited with the radical but increasingly accepted notion that phenotype can dominate over genotype in normal development and disease. For those of you who don't understand what that means, look at levee one in the Quilt. It is identical to my ideas.

Bissell has gone back to the work of Otto Warburg and her latest work shows just how deadly glucose can be. This should open a few paleo eyes. Most of the paleo bloggers need to put some windex on their glass eye, with respect to glucose. Mina Bissell, former Distinguished Scientist with Berkeley Lab's Life Sciences Division and a leading authority on cancer, has shown that aerobic glycolysis, ***glucose metabolism in the presence of oxygen, is not the consequence of the cancerous activity of malignant cells but is itself a cancerous event.***

"A dramatic increase in sugar uptake could be a cause of oncogenesis," Bissell says.

These are far bolder words than most researchers can handle. **Mina Bissell has pursued a revolutionary idea that a cancer cell doesn't automatically become a tumor, but rather, depends on surrounding cells (its microenvironment) for cues on how to**

develop. This sounds a lot like what I have written in levee one of the Quilt.

Volkow, Achermann and Bissell sleep links: It is all tied to water chemistry!

This is the problem: **people have these fixed ideas that are literally immune to evidence**. Volkow, Achermann, and Bissell are all published, and their conclusions *should* wake mankind up, but they do not.

Look up what Einstellung effect is. The war on cancer is a case study on the Einstellung effect; we think it is all about genetic determinism because that is the idea that got glued to cancer. **There is a much simpler answer for cancer: altered water chemistry**. In my next blog, you will see one of my shortest blogs ever lay that concept out. This story is all about that water phenomena.

But researchers have all been duped by the Einstellung effect. I personally think they have gotten tripped up because the implications of the simple solution "scares the shit" out of most learned people based upon human's modern habits and beliefs. The cause of cancer should be obvious based upon these three papers from three different authors all tackling the problem from a different angle.

Yet, we spend billions of dollars looking further into a genetic mechanism for cancer when the smoking gun is an epigenetic one related to the three-legged stool gone awry. **Excessive glucose in a low redox state in our cells and tissues is the cause of this neolithic disease.** Many things bring your cells to this state, but all lead to the the same endpoint.

What about the deep connection between brain activity water

and sleep? We first saw Becker make that link, but he failed to follow up on his brilliant insight in the 1960s. Achermann and Loughran did not flub this connection. Unfortunately, they only mention their sleep work in passing in their papers, but the discerning eye will connect those dots to Becker and Bissell. I think you can chalk that up to scientific rigor about a link that "most believe is something of a stretch."

It doesn't take much of a leap to connect the two as I have in this blog, especially because these are the best-documented effects in cell phone science ever published in modern literature. Who would be surprised that they might go hand in hand? Or that activity would have something to do with sleep?

When sleep is destroyed, the DC current drops, and diseases of all types follow behind. Robert O. Becker said and proved this 60 years ago pretty definitely. Some may say it's too early to say there's a definite connection, but it can hardly be too soon to talk about them in the same sentence. In my Quantum Sleep blog, I have already showed you how CSF water dynamics are tied to quantum sleep.

The Takeaway: The link between electromagnetic signals and water

An electron-rich body charge encourages oxygen to penetrate cells, prevents junk molecules from sticking to cell membranes and DNA base pairs, vanquishes pathogens and powers our immune cells. It also decreases the need for glucose in your diet. The interchange between electromagnetic signals and water is where we need to focus for optimal health.

In a weak photon- or electron- charged environment, like today's modern world, epigenetic expression fails because either RNA/DNA base pairs unravel and unwanted molecules glue to DNA sequences, acting like Aunt Jemima syrup on your counter top after five days. (Think about Mina Bissell's data

on glucose here). Water is a chameleon that can do all of life's tasks when the native electromagnetic energies are present. Today, they are not.
Water's anomalous properties are explained by the changes in the relative amounts of water-clustered networks. When water gets colder, it gains more oxygen, but it also uses a tetrahedral molecular binding network to carry out its winter duties. Hydrogen bonding networks are behind water-clustering structures. **This super cooled water has some crazy ability.**
When super cooled water is heated, it shrinks and becomes difficult to compress. Now you know why fish can swim at 12,000 feet of sea water. Super cooled water has a different refractive index; it increases. Gases become less soluble in it, too. It also becomes easier to heat up and it conducts heat well. **This means that super cooled water really can form a large Exclusion Zone in both warm and cold states**. The electronic state of water allows it to bond 15% more water molecules closer than they would be if water was a regular liquid with just Van der Waals forces acting upon it. This is why water binds so closely to DNA and proteins in the brain. Liquid water also has some amazing magnetic properties.

Ionization: The electron spin story

The two hydrogen atoms may possess parallel or ***antiparallel nuclear spins***. Parallel alignment (ortho) is paramagnetic with a magnetic moment of 1. Antiparallel alignment is nonmagnetic (para) and has magnetic moment of 0. The equilibrium ratio of these nuclear spins states in H20 is all para at o degrees K. The colder things get within an environment (>50K), the spin state begins to change what we see in bulk and liquid water. The spin state suddenly changes into 3:1 ortho/para liquid.
This proves water is a chameleon literally and figuratively depending upon the environment it is found in. It consists of a mixture of slowly interconverting non-identical molecules depending around the surrounding environmental temperature. Now you can see why I told you two years ago in Cold Thermogenesis 6 that all biochemistry was thermoplastic.
H20 has two light atoms in hydrogen and one heavy atom, oxygen, in water. There is a 16-fold difference in the masses

of both and this gives rise to the ease of molecular motions of water in all spaces. Because hydrogen is the smaller of the two, it makes their nuclei in the water molecule more able to move freely to affect their interaction with other molecule in which water is reacting with.

Most people think water is not reactive chemically, but that is wrong. It appears this way because most of the hydrogen bonding network is locked up in water's own hydrogen bonding at ambient temperatures. But when water is made hot, its strongly nucleophilic oxygen core becomes strongly reactive. This reactive oxygen species is what drives many of life's critical reactions in cells and in pathways for signaling. This is where ROS comes from. This allows water to become ionized to make reactive hydrogen ions and hydroxide ions.

Remember I told you **water is not only life's battery, but it also acts as liquid crystalline semiconductor in the quantum cell**. If electrons are stripped from atoms to form an electric current, why doesn't the atomic/molecular structure of the material from which they are stripped change you ask? So what happens when something removes electrons from semiconductors?

Removing electrons from an atom is called ionization. Even though an electron is stripped from atom, its mass is not changed since electrons have no mass. Electrons however, have a negative charge. This charge is under infinite control of the electromagnetic force of the environment the cell is in. This can change how a cell process works just by this very process.

Of course, when electrons are stripped from atoms or from atoms in proteins, they become more positively charged than they were before since an electron was lost. So when water is ionized, its goal is to strip electrons from proteins to make proteins more positively charged. Remember it can also add electrons to proteins too. Here we see the same key opening different doors leading to vastly different results in a cell.

Before going on watch this video on how water chemistry animates life:

A quantum-free lunch & the photoelectric effect

It turns out the charge separation that occurs in water adjacent to collagen happens naturally without any instruction from DNA or RNA. Today, biology thinks the instruction manual has to have all these instructions. When you understand quantum physics, you begin to see Lady Evolution started with the three-legged stool and not DNA and RNA instructions.

Moreover, **this action water chemistry forms for us naturally gives life a thermodynamic boost it needs**. **We get this boost for FREE without much energy of organization being expended.** It comes free because all we need for charge separation is collagen just to touch water. It turns out in all life this is the basic organizing principle of a quantum cell. This means the way the quantum cell is organized holds the entire key to how the "quantum dance" happens in life. All these parts "self assemble" to make the cell a one giant collect coherent semiconductor. This is the state of **zero entropy** I mentioned before.

I explained to you in Energy and Epigenetics 6 how this all happens. I know it was a difficult blog to read and understand, but over time it should get easier to understand.

Today, I am showing you how all the basic parts of nature assemble to create something rather remarkable. ***The redox potential of the entire system tells us how good or bad those semiconductors inside of us will work.***

So what provides the constant energy source to the entire system? Here is where Einstein's masterpiece Nobel Prize, the photoelectric effect, comes to bear its force. We have not talked much about Einstein's part of life yet. Why? The sun's light is a given in nature. It organizes everything, and it is always present. Sunlight dissociates water into positive and negative charges.

Light is quite versatile. **Pollack's experiments have found definitively that infrared light (IR) is what builds Exclusions Zones (EZs) best**. Visible light also builds an EZ, but not as good as IR light does. IR light is always present both night and day, winter or summer, so the fuel for building an EZ in a quantum cell is always present, and it is always

free.
This is how life skates around the second law of thermodynamics to build a zero entropy machine. The fuel comes FREE all the time regardless of season. In winter however, we get less of infrared light … so what does nature do to offset the loss? **It says eat fat and protein because it makes four times as much ATP than carbs do.** This increase in ATP opens more water binding sites on proteins to build bigger EZs when IR is sparse.
The sun's photoelectric effect is what power's life's entire battery, water, for free. The sun's photons are used thermodynamically for free by cells by using water as its conductor and transducer of energy. The power of the sun's photons impart their energy to the trapped electrons, photons and protons inside our cells to power it all.

Benefits of charge separation (ionization)

The battery for life comes from the innate ability to separate charges in water. **Charge separation in water is also another name for ionization. Charge separation, or ionization, of water create the exclusion zone of water (EZ).** Any time we separate charges, we get several key benefits:

1. **The development of a negative charge.** This negative charge is just like the one on an electron particle. This means that the electromagnetic force can exert its infinite power on the system "to play the harp of life."
2. **We develop a massive amount of protons**, and these protons can be driven to give us a positive electric current to give us free energy just by having the ability to separate the charges in water. This is precisely what plants do in photosynthesis. In animals, water just needs to be next to collagen to make the exclusion zone appear. No energy is required in this recipe. This is why Gilbert Ling's science was massively important, and a huge oversight by biology. The exclusion zone is how water becomes a Maxwell Demon

> solvent for life by creating a battery that naturally separates negative and positive charges. This is a basic concept in the design of a quantum cell. When this happens in cell water, collagen becomes electrified and alters its own protein conformational bending by becoming a triple helix of protein capable of conduction proton electricity. **This is why collagen is considered as the "wire" connecting the positive and negative battery terminals of ionized water.**

This is provided that water is around proteins, organelles and mitochondria to begin with. In life, water is abundant. We're comprised of 71% water. **Water's 105-degree bonding angle between its two atoms is even more critical to understanding its quantum properties**. If water's bonding angle was 109 degrees, water would be like a crystalline diamond and not free to roam. 105 degrees makes water the most "social quantum chemical" in the universe. This bonding angle allows water's electron clouds to shift as water bonds to any lattice. This is why water is a universal solvent.

When IR or visible light are present, this shift frees a dangling proton from the water lattice below an organelle or a hydrophilic protein in a cell. This is the proton that drives energy gradients in a cell. **Every time a proton is released, energy is released to the cell's semiconductors**. This release happens because oppositely charged moieties lie at a distance from one another have plenty of potential energy. As they merge together in the lattice, that potential energy is released to the system. This happens in mitochondria, too!

Do you what this also implies? Think about the pi electron clouds in DHA that is in every lipid membrane of your head. What molecule surrounds these pi electron clouds in the brain and spinal cord? Water, in the form of CSF. **Water fits perfectly between the pi electron clouds, and it is the ideal magnetic dipole in the native EMF field to control electron spin.** This molecular magic, under the direction of the magnetic field, allows water and sleep to become linked for regeneration.

Are you beginning to see how complex life is organized to maximize function yet? The pi electrons of DHA and the water EZ lattice create the perfect quantum nano-machine for super

cognition and regeneration via sleep. We talked about what they do together in the February 2014 webinar for members. This is an emergent form of matter we are describing here. This is what ultimately makes humans have special abilities.

Remember I told you the brain is a quantum electromagnetic computer? Well, the scenario I painted above, with a proton being released, resembles a picture where we are separating magnetic poles from one another, each surrendering potential energy as they come together. Here, that surrendered potential energy gives us a positively-charged proton for free because it is free from the negatively-charged EZ lattice of water. These protons continue to be made as long as water is ionized into charges by light.

Notice how we never mention the need for ATP in any of this, huh? **Proton generation builds up fast when protons are kicked out of mitochondria robustly and water conductors collect them to use for a "rainy day."** Protons cannot stay there in a cell long with out causing havoc. They have to be moved or the EZ boundary would clog and stop growing. When this happens, your battery declines and your redox potential falls.

Moreover, free protons can live long lives in a cell. The protons look for the nearest negatively charged ion and they find water and make H30+. This is a hydronium ion. These ions can live forever, and as such they can store the potential energy of a cell until it is needed to drive a reaction.

This is the ion that dictates how water can move in a quantum cell. The more you've got, the better you'll do, because your battery is charged. The bigger your EZ, the bigger your battery. The bigger your battery, the higher your redox potential because more energy is stored inside your cell.

Just think about a car battery with no water between the positive and negative terminals. It won't start your car, will it?

Acids lower H30+ ions so acids all reduce EZs. Salts do the same. Things that alter salt concentrations in the body are a clue into what is going on inside a cell. This is where it makes sense to pay attention to aldosterone and anti diuretic hormones in the body. It is also why urine specific gravity serum osmolarity and urine osmolarity may help tell you about your redox potential. Wherever the lattice semiconductor is

open to positive ions of any sort, these ions can enter the EZ. The one exception to the rule? Potassium, because it has the perfect size to mesh with water as a glue. Think Gilbert Ling.

When mitochondria do not work well, they make a lot of positive ions. Mitochondria become unable to use the protons liberated from water surrounding them, too. When proton use diminishes, the EZ in mitochondria gets smaller and the proteins embedded in the mitochondrial membranes begin to function differently than they should. **This directly lowers the redox potential in mitochondria.**

Let us consider the action of non-native EMF on the EZ. Suppose some outside perturbation directly alters the EZ by stealing electrons from it due to an electron-hungry process? This leaves behind a lattice of water semiconductors devoid of its usual negativity. When this happens, you cannot grow your EZ; in fact, it begins to get smaller. When this happens, the natural reversible recycling of the EZ that one gets with infrared light is not so ordered. Instead of yielding water in the recycle, the withering EZ process begins to yield other forms of reactive oxygen species. (I spoke about one in particular called Fenton reactions in the Quantum Autism blog. Have a re-read to refresh your mind.)

The various forms of oxygen species then populates the bulk water in the cell that is trying to recycle the EZ. The nature of these alternative oxygen species is totally dependent upon the environment or the nature of the deviation. In the case of non-native EMF, the energies in the radiations have direct effects on the molecular network relationships of water. They destroy and disorder it. This is where superoxide is made with its negative charge due to 2 oxygens, the OH radical without a charge, and H2O2 can all show up depending upon what energies are present to destroy the EZ in the cell.

The higher the EMF power in the electromagnetic radiation, the more devastating Fenton reactions become to tissues. The more devastating the Fenton reactions are on tissues the more you LOSE your redox potential in your tissues.

Today, the biologic mindset says ” the single cell” is the smallest packet life comes in. This is among the biggest

illusions of scientific reality. As with most things in the quantum world, mystery and paradox rule the day. Quantum mechanics experiments say “all of biology” occurs on the subatomic playing field, and this is where life begins.

Physics Geeks: Quantum Electrodynamics

Photons mediate electromagnetic interactions between particles in quantum electrodynamics. An isolated electron at a constant velocity cannot emit or absorb a real photon; doing so would violate conservation of energy and momentum.

Photons are bosons and their forces act directly on fermions, the electrons. What makes electrons “special leptons” is that they are all the same – they carry a negative charge, they carry information and they have spin. This is why “Lady Evolution” chose to use this quantum particle in which to carry out all of life’s recipes. It is also why electrons seem to determine all matter’s physical capabilities.

Non-Geeks: Energy in cold-blooded vs. eutherian mammals

Cold-blooded animals give you a big hint as to how the “food electrons” they collect are energized by the sun’s power. They have a smaller margin of safety relying just on electrons from food. **Cold-blooded animals need the sun to “energize their food electrons” to allow their muscles to work.**

Eutherian mammals do not have to do this because our mitochondria use the energy in protons to transform to other forms of energy. This energy transformation rises or lowers electron powers on our semiconductors based upon the environmental signals the earth gives our mitochondria. People forget that mitochondria make protons all day long and

spit them out. They spit them out into the water hydration shell around mitochondria to have their energies transformed by the law of the conservation of energy.

All electrons have the same structure subatomically. Richard Feynman showed this decades ago. **The only difference electrons have between one another is the amount of energy/info they carry and the direction of their spins.** Life uses these things to make sense of the three-legged stool's information given to it as the seasons change.

As the seasons chang, the information contained is found within the differences of how electrons act in our mitochondria and in our cell. This is why I gave you a clue three years ago that electrons do have a quantum effect.

This is why reptiles and amphibians have special skin to "catch the energy of photons" just like you put gas in your car to do work. The sun's power (photons) is additive to the electrons they get from foods. This is how the photoelectric effect works in all life.

The photoelectic effect and seasonal changes in energy

Sadly too few in the blogosphere know how the photoelectric effect is really used in biology. The recent developments in photosynthesis should have gotten them all wondering about how animals use electrons and protons. It did not, because we have all this nonsense about carbs, starches and exercise. We have no one understanding how all the things in us work using basic fundamental evolutionary quantum principles.

The key to understanding the photoelectric effect is that the photon power from the sun has to match the energy state found in the electrons derived from food in order to have the effect of energizing the photon.

See, a photon delivered from the sun through space in the winter cannot elevate or excite an electron from a food stuff that is created in summer. The reason is simple: while the electron is the same, its energy can vary. It can be dialed up or down by the power of a photon coming from the sun's light. Photons in the summer carry more power than ones in the winter. This should be intuitive to anyone who feels the heat of the summer's light compared to the heat of a ray of light in winter. The photon that made that food in the summer was of higher energy than the winter photons. **This is why winter foods carry different energy and information about the environment to the cytochrome proteins. This is quantum mechanics 101.**

But when the shoe is on the other "seasonal foot", ie when it is summer, and you are eating fats and protein, **the sun has a massive capability to impart a lot of the energy from the sun to help improve your wellness quotient**. This power is felt in the radiant infrared heat of the summer sunlight. This qualia of sunlight is not present in the winter.

This part of the electromagnetic spectrum is the part that imparts a special quantum chemical effect to water's structure. It allows water to make highly energized protons flow consistently. In fact, it increases proton flow everywhere in nature. This is why you have read recent social media reports linking sunlight to the lowering of blood pressure. The better the flow of protons, the lower your BP will go. **Ninety-three percent of blood is made of water and this is why sunlight reduces BP and helps your heart and mitochondria out.**

It is 100% tied to water chemistry that holds that proton flow.

It should also make you realize all the bad press the sun gets from dermatology might need to be rethought. Maybe when your redox potential is low is the only time sun might hurt your

cells?

CONTEXT MATTERS IN QUANTUM BIOLOGY! The same key opens the door to heaven and hell. The environment you create determines the fate of the sunlight's effect on water. Think deeply about Mina Bissell's work now. Think about levee one.

The importance of seasonal eating (The epi-paleo diet)

Because of this basic natural finding, there is no food we humans cannot eat when the redox potential is high, but the other side of that coin is just because you can eat it 24/7, doesn't mean you should. **Foods eaten out of their photoelectric growing period will diminish your EZ and will destroy your redox potentials slowly, but steadily over time.** If your redox potential is low, eating things out of season can really cause you to down shift your mitochondrial function or your ability to make new mitochondria.

Humans might have survived from this flexibility, but the optimal diet is not built for basic survival when the environment is filled with electromagnetic signals of disorder. This is why summer can be thought of as the season of illness reversals. **When you understand the true essence of the photoelectric effect, you can use the sun's power to recharge your "poorly charged semiconductors."** Your semiconductors are made up from the four parts listed above. Any one of these things can alter your ability to harness the sun's power.

This also helps explain the paradox of why eating mismatched foods does nothing to help you or your wellness quotient. The only thing better than electrons for health is properly powered photons within their seasons. "When you get electrons, you get health." The axiom of health should be "Got Electrons," not 'Got Milk'.

Discovering truth and removing preconceived notions

Before going on, watch this video about electrically structured water:

Do we really eat sunshine? The only thing better than electrons for health is photons. The data out there is obvious; what is not so obvious is how the recipe was constructed by Lady Evolution. We are just peeking into Nature's cook book. When you begin to see biology from her perspective, and not your own, things become clear.

Discovering the truth is unlikely if you've decided that you already know the truth. The science may be complex, but the application can be quite simple. Truth is not something outside to be discovered, it is something inside to be realized. The point is when we begin to use evolutionary biology to guide our decisions instead of our feelings and socially created beliefs, WE GET BETTER.

Sadly, people tend to buy beliefs over benefits.

We need to use evolutionary thinking to guide and master our thinking. If you're with me, eventually you will get optimal. Optimal is tied to your redox power. That is the MO of my entire blog, and it is the thesis of my life.

You already have the Redox Rx to help navigate this for you.

Why is QED so hard for people to wrap their minds around? Nature's simplicities are enormously complex in their mechanisms. Consider this collection of words as an example: "I love you." It is a simple statement that takes a lifetime to understand. Do you get the parallels yet in QED?

Simplicity is ultimately a matter of focus and vision when you are trying to understand how diet, evolution and the laws of

nature work in unison. The eye sees more photons than the mind can comprehend, and we go through life self-blinded to much that lies before us. Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it. And to make matters worse: complexity sells better in today's modern world. Every modern food convenience comes with a severe health sacrifice with time. We need to become entangled with nature and her rules for health.

Simple can be harder than complex. Life is simple. It comes down to three things: water, light and magnetism. Today, you got a chance to see how simple is harder than complex. You have to work hard to get your thinking clean to make it simple. Life itself is simple when you see biology from her perspective and not your own…., but no one has ever said it is designed to be easy.

Once you embrace nature's simplicity you begin to sense its worth. In the end, once you get there, you find you have tremendous leverage over disease and health. Life obstacles that were once considered mountains become mole hills and speed bumps. That is the magic of evolutionary design. Check out this timelapse video of melting water filmed with a polarized lens to show you the EZ.

We have a long way to go to understand what non-native EMF devices may be doing to the billions who use them. Surely the first step should be talking about what we already do know. Today you see the collision between the electromagnetic force and water chemistry.

Leave a comment.

Additional Support: Webinars by Dr. Kruse

- The Fourth Phase of Matter (February 2014)

Additional Resources

- Energy and Epigenetics 4: Light, Water, Magnetism
- Energy and Epigenetics 6: Quantum Cell Theory, Life as a Collective Phenomena
- Energy and Epigentics 9: Quantum Sleep
- EMF 4: Why Might You Need Carbs for Performance?
- Cold Thermogenesis 6: The Ancient Pathway
- The Quilt Levee 1: Cellular Homeostasis

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