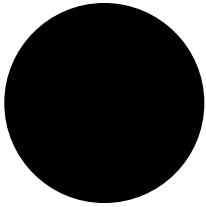




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Aquaphotomics is the study of how light and water interact as the video above mentions. Water has both a battery and engine component and many other gears that we are yet to resolve. The key to understanding this new science is to understand that it is the Stairway to Heaven for understanding how life is able to summon energy anytime it needs it instantaneously to do physiologic work. Food alone cannot account for the amount of ATP a cell makes or uses. Aquaphotomics is the science that will show biology how life is really powered. Life is not about ATP powering, as biology currently believes. In technology, the more complex the build, the more energy it consumes. The more energy a device uses, the more powerful battery must become. Physicists have looked deep into the quirks of quantum mechanics and found out about a rather unique process. It is theoretical, but the science is plausible. Physicists have found a way to charge a battery at the speed of light. This battery of the future has still not been built by Silicon Valley, but it might eventually “dawn” on these scientists that the batteries of cells in biology are a key model for this idea.

This blog is about this very new science in physics. Not too many people will see how this physical science Dr. Tsenkova discusses in the video above links directly to the creation of a “quantum battery” in a cell that evolution created to run a living system 3.8 billion years ago but I am going to show you this story might have developed in this Patreon entry.

Most people think from recent work in water research that all cells need to make a battery is sunlight hitting water. That is important but as I will show you it is way too simplistic to be

correct because of the observations Dr. Tsenkova has made in aquaphotomics with respect to ions in water. The current cutting edge of Pollack's work on water is myopic and too narrow to explain how life powers itself. Quantum mechanics (QED really) allows us to create a battery that can collect and distribute energy on demand at any time and on timescales that are hard to explain. It turns out instantaneous charging and discharging is the kind of battery living tissues seem to run on. This observation represents what we all observe in the living state. When we need energy for any process, our tissues seem to be to deliver it. How do tissues do this? have you ever asked yourself this? When you consider the thermodynamics of this situation, it makes sense it should be sensitive to the underlying microscopic description. For example, from the principles of thermodynamics, efficiency of an engine should always be limited by the Carnot boundaries irrespective of whether the working medium is comprised of quantum or classical components. These principles however we developed from equilibrium based system. Most of those systems are closed. A calories in and calories out system only makes sense (CICO) in a closed system. Life is not a closed system. Life is open to the environment's dynamic thermodynamics. This is why I rejected the CICO paradigm.

However, for non-equilibrium protocols and open systems the question is more subtle. For instance very recently it has been demonstrated that it is possible to use non-equilibrium shortcuts to adiabaticity to boost the power of engine cycles without compromising efficiency (Deng et al. 2013, del Campo et al. 2014). So this raises an interesting question for the mitochondrion.....

How did Mother Nature solve for X, thermodynamically?

**THE WATER CREATED BY YOUR
MITOCHONDRIA HAS A MISSION IN YOUR
BODY TO MOVE CERTAIN IONS LIKE
PHOSPHORUS, SULFUR, AND SELENIUM IN IT.
THERE THEY COMBINE TO FORM A QUANTUM
BATTERY, CAPABLE OF INSTANTANEOUS
RECHARGING FROM NATURE'S ELECTRIC AND
MAGNETIC FIELDS FROM THE SUN AND EARTH.**

JACK KRUSE

You're probably familiar with quantum bits (qubits) to some degree from all the news about quantum computing in recent years. Unlike regular digital bits we use in computers now, a

qubit can be in either of two states or *both* states at the same time. Physically, the qubits can be any number of particles including photons, ions, and neutral atoms. In the case of a quantum battery, the qubits are nicknamed “wits” because they are used to store energy that can later be extracted to perform physiologic work. Dr. Tsenkova results in water are puzzling to many in biology because they do not realize what is in the water effects the battery potential. Water is a magnetohydrodynamic plasma. She is examining the spectral pattern of water and has found that different substances in the water lead to many many types of energy levels being possible in water. In the classical sense, her results offend modern biology. For a mitochondriac this is awesome news because her results are showing us the evidence of how life uses a quantum battery to power cells. Each ‘wit’ in a quantum battery has a high-energy state and a low-energy state. This mimics what we see in electrons in a Jablonski diagram (pic below). When a cell adds power to the system, and you flip wits to the high-energy state to store energy that you can use on demand at anytime in the future.

The trick to getting super-fast charging times out of a quantum battery is that all of these “wits” can be entangled during the charging process. Conventional battery charging is limited by thermodynamic processes as the electrons flow in, but two entangled wits can bypass these thermodynamic constraints.

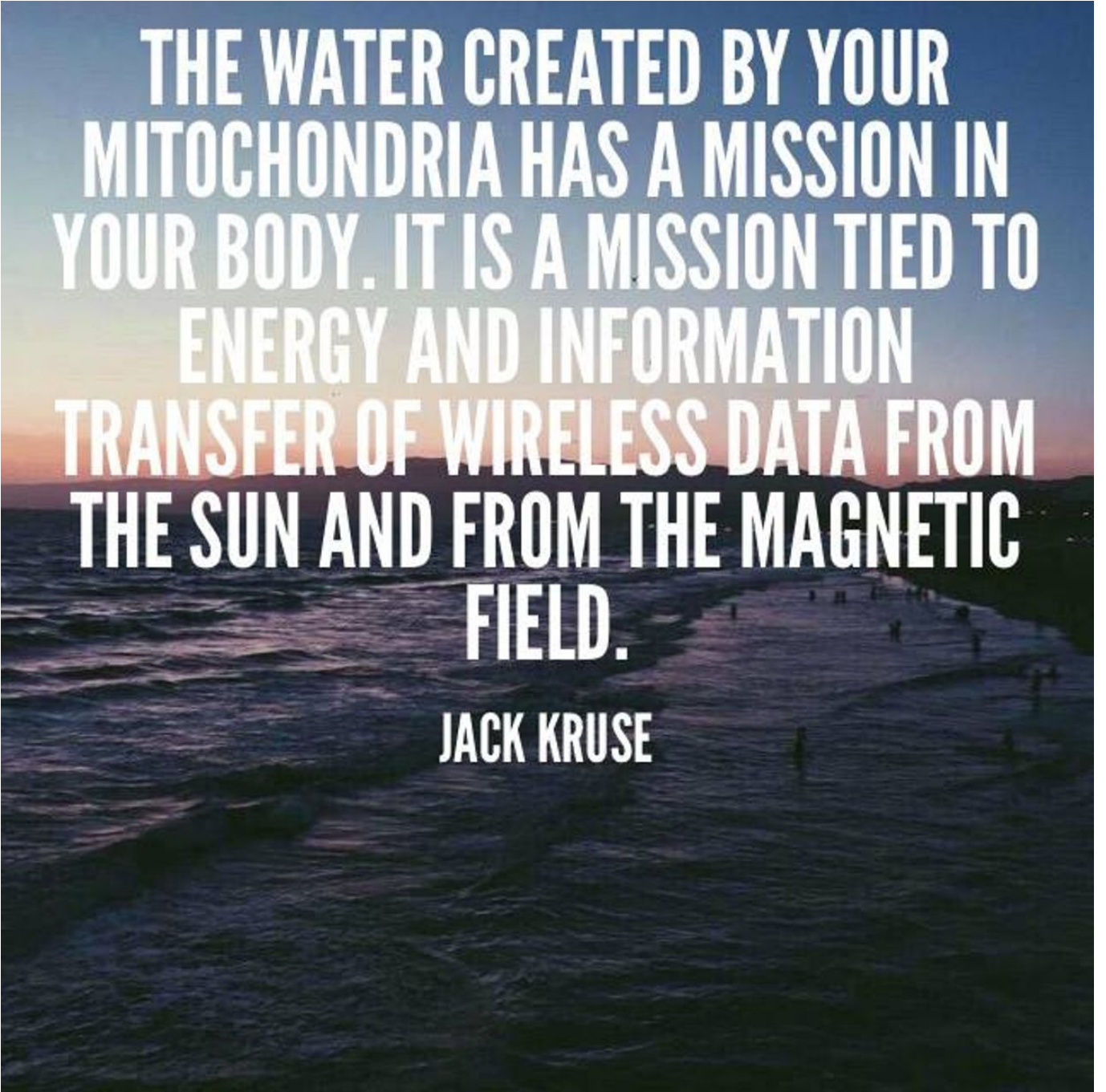
Cells have figured out how to take full advantage of the small scales present in cells. One of the key places where energy transmutation in cells occurs is in the lumens of microtubules as one end of the tube is 30 nm and the other can shrink below 5 nm. Researchers have found some interesting things too when they shrink the scale of the environment in their experiments. Alfred Hubler and Onyeama Osuagwu, both of the University of Illinois at Urbana-Champaign, have investigated energy storage capacity in arrays of nano vacuum tubes, which contain little or no gas plasma. When the tubes’ gap size – or the distance between electrodes – is about 10 nanometers wide, electric arcing is suppressed, preventing energy loss. This should open many eyes in biology, but so far it has not. Biology is blind to the QED aspects of solar light.

How do we protect the fragile state of entanglement? Water and light helps the protection scheme of 'wits' in our batteries.

If two particles are entangled, they will share the same quantum state even if they aren't in the same physical space. In this case, that state is storing energy for us. In fact, the charging speed is proportional to the number of "wits in a battery". Take a look at the instagram picture quote from above. Those atoms are a few of the "wits" our water batteries use to power life. "Wits" and electrons have a lot in common when it comes to battery construction. *Learning about the nature of food without a thought of how solar light effects the process is labor lost; a thought without learning about the nature of light is perilous to man's health.*

Life is very clever. The living system in a cell has figured out how to transform excited electrons out of everything we eat and keep them under control in cells until we need their energy at any moment. The control is tied to the creation of water a mitochondria makes.

Creation of an exciton by the sun is the Rx of nature that slows light down. Electrons must flow in order for energy to be gained elsewhere. How electrons and protons flow is tied to their charges because they are subject to the electromagnetic force. Life is the ultimate Turing machine of electrons and protons buried in your mitochondria. It's a mitochondriac job is to learn how to make that machine move exquisitely. This "Turing machine" has a to have a battery to run on and it only makes sense that this battery would be made of subatomic particles that constantly move. Mitochondrion appear to be perpetual Turing machines for electrons and protons that are fueled and protected by sunlight and the water they make together. When the movement stops life ends.



**THE WATER CREATED BY YOUR
MITOCHONDRIA HAS A MISSION IN
YOUR BODY. IT IS A MISSION TIED TO
ENERGY AND INFORMATION
TRANSFER OF WIRELESS DATA FROM
THE SUN AND FROM THE MAGNETIC
FIELD.**

JACK KRUSE

The electron, in fact, any electron in the universe is the same as it leaves the atom. It crystallizes out of Schrödinger's mist like a genie emerging from his bottle; if that does not

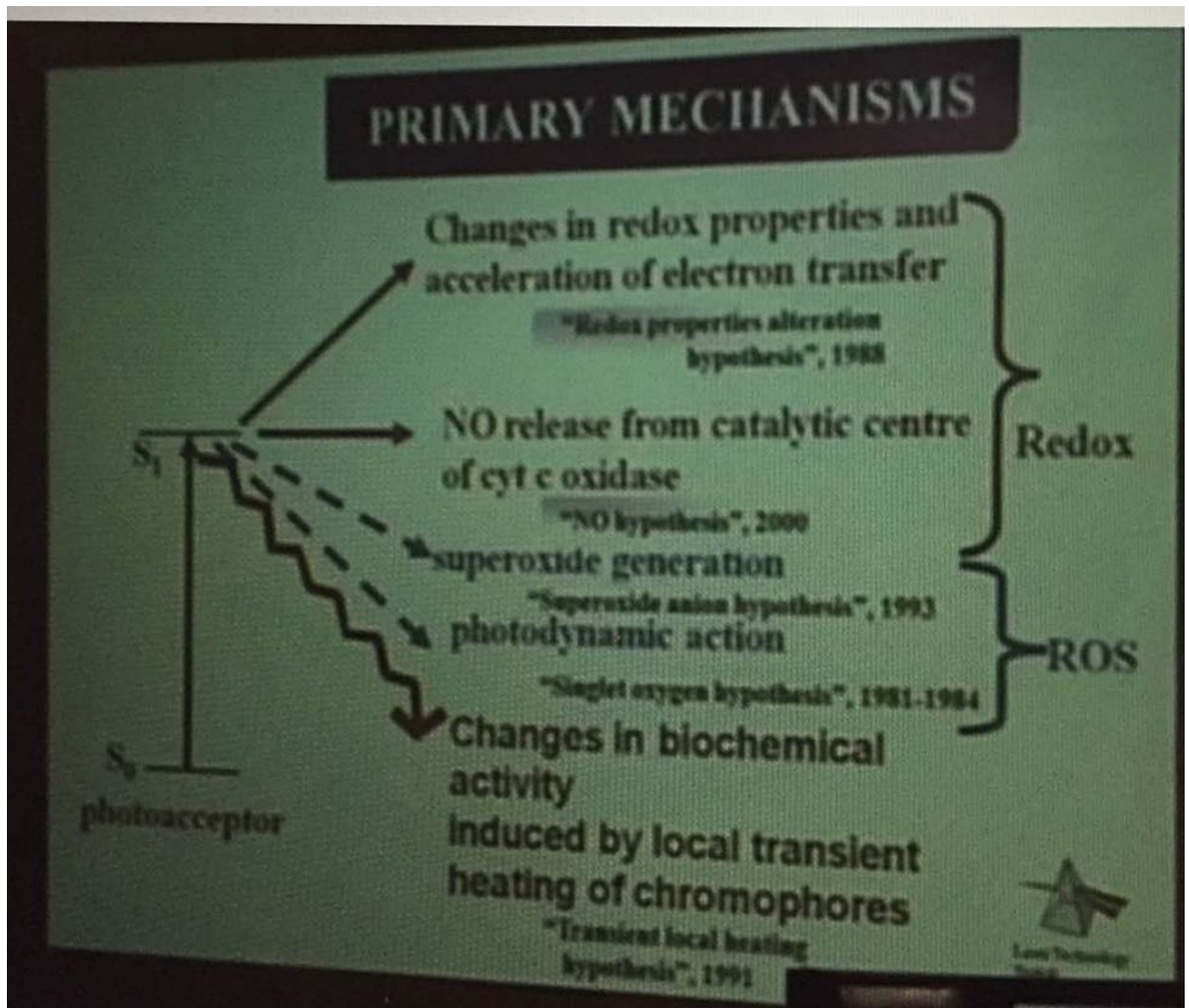
shock you by itself, you might realize that the genie is capable of emitting light that excites the electron which knocked it out of its home turf to begin with. This excited electron then carries its light cargo until it runs into something that wants to end the excitement in its journey through the cosmos. Water is capable of doing that. So our proteins and lipids in our cells. Electrons are very capable of dropping this light energy off after the electron falls to the ground state. This is the fundamental process that drives all life on Earth as we know it. Few people really understand that this is the basic process that life uses to do the many things we observe it to do. This is what makes science so exhilarating to me.

Life is nothing but an excited electron looking for some location filled with matter that contains a mass with a slight positive charge to so the electron may relax for a small second to give up its light energy to change the thermodynamics of the mass it is drawn to. As an excited electron relaxes and slows it gives off its light. The light it gives off can change the size or shape of things with mass or it can make things move. The key to its ability is tied to the light frequency the electron carries from our star. This is the essence of life's dance on this planet.

All foods are electrons and all electrons are the same and can only be excited by sunlight. So the difference is in the frequencies and wavelengths they contain. Nutrient density has different connotations to different people. When you consider the machinery of energy generation found inside of a mitochondria this should narrow the discussion for people.....but it has not. Input to mitochondria is called electron chain transport for a deep reason; moreover, food guru's link to their ideas to calories and macro's. Energy flows all come back to electrons and protons in nature. Life is a giant electrochemical battery that is recharged by sunlight. Maple syrup comes from a tree that makes it from CO₂, water and sunlight using photosynthesis. Mitochondria reverse that process and allow light release back to the environment.

The photosynthetic process is now known to be fully quantized. The entire food web is linked to photosynthetic process (solar based). Most food guru's ignore that formalism of how basic light is to life's story, for business/profit concerns. A mitochondria samples excited electrons

and examines them in many ways; mitochondrion observes the many facets of the physical properties of electrons and protons from food. It begins by breaking food down to electrons and protons first. It then separates electrons into ECT and protons get removed by dehydrogenase in the first three cytochromes and then have their sole electron removed from it. All these electrons are collected by the respiratory proteins by allowing them to fall from the excited state back to the ground state as they travel from cytochrome 1 to the ATPase. Electrons are excited by sunlight and then buried in the foods we eat. Food is really an alphabet of light frequencies for mitochondria to consume and make sense of. Excited electrons by the sun can re-emit light as the electron falls to its ground state in the matter in our cells to change them in many ways. Below is the key picture that shows this process. Redox is the first thing that occurs as the fall begins. Then ROS/RNS is made in mitochondria, and then biochemical pathways are organized by the light that the excited electron releases. This points out why having a biochemical equilibrium bias is pseudoscientific to nature, in my opinion.



For example let us consider this example in life: even single celled organisms are sensitive to magnetic fields. Bacteria like E coli can use ions which are atoms that are missing electrons to alter their charge. An atom like magnesium or calcium can be used to become magneto-sensitive in this way by a cell. Apparently, life does not need a ferromagnetic material (iron containing) to be magnetosensitive. The reason for this physical reality is simple to understand. When electrons are missing it can alter the nuclear spin of the atom in question.

If the atom being used by the cell has a nuclear spin that is sensitive to magnetic field from the environment it can be used to make a quantum battery. Atoms can be altered by removing electrons or adding neutrons to change their isotope. It is now well known isotopes change the thermodynamics in cells by altering electric and magnetic aspects of the atom and that is the only edge life needs when water and sunlight are already part of the party in a cell. This cite below shows you how isotopes of Mg^{2+} can be used to alter ATPase function in E coli. This should be big news in molecular biology but they do not understand the implications because they ignore quantum biology.

I want my patrons here to wake up to the fact that the colony of bacteria in our cells, called the mitochondria, are filled with protons made from hydrogen removed from foods. Do you think this maneuver might be important part of a "quantum battery" construction plan? It is, in my opinion. Take a look at the cites below on quantam dots or qubits. In a quantum battery these things are known as "wits". *Hydrogen is the smallest atom and 'qubit/wit' we know about.* Hydrogen atoms are stripped off foods by 3 dehydrogenases enzymes in the first part of the electron chain transport system in our mitochondrion. The mitochondrion also strips this hydrogen atom from food of its sole electron making it become a proton. A proton is a subatomic particle that is more highly electrosensitive to the native electromagnetic forces found on Earth than a hydrogen atoms is. Why is this true? Because the proton, stripped of its electron, has an unbalanced positive charge due to the missing negative charge of the electron. This makes it highly magneto and electro sensitive to those native fields on Earth. This is why the mitochondrial matrix hoards protons. This is one of the key steps in creation of the "quantum battery" of life. Mitochondria also make water. When water is hit by light it makes and exclusion zone that creates more protons, but the EZ protects the nuclear spin of protons in the mitochondrial matrix. This protection scheme is imperative in making a special battery life requires. Life needs energy immediately so this means a cell's battery would have to recharge at astounding rates to make life possible. Sunlight is the ultimate electric and magnetic receptor for human cells because every human receptor in a cell is optimized to solar frequencies between 250-780nm to work.

Physicists have shown that a quantum battery—basically, a quantum system such as a qubit

that stores energy in its quantum states—can theoretically be charged at a faster rate than conventional batteries. This “quantum speedup” arises from quantum entanglement among multiple qubits, which essentially provides a shortcut between the qubits’ uncharged and charged states, allowing for faster charging.

The physicists, Felix C. Binder, et al., have published a paper on the quantum battery, which they call “quantacell,” in an issue of the *New Journal of Physics*.

The mitochondrial matrix hoard H^+ to create and entangled state to make the ultimate biologic battery? Yes it does. How does life protect this ‘sensitive state from falling apart? A mitochondrion is the key to this protection scheme. An “entangled state” implies that all hydrogen atoms become stripped of its one electron to become an ion with a charge and nuclear spin. All protons are positively charged and when the electron is missing it make the proton a magnet because its spins differently than it would with its electron. They are collected to a great degree in our mitochondrial matrix and appear to act in unison with trillions of other hydrogen protons in some specific or particular fashion with other H^+ or other atoms.

The hydrogen nuclei have a quantum property called spin, which makes them rather like little magnets with poles pointing in particular directions. In an entangled state of many H^+ , the spin of one hydrogen nucleus depends on that of the other.

Put another way, entangled states are really superposition states involving more than one quantum particle. All the same, quantum behavior in any atoms nuclear spins would have to be “protected” from decoherence from something in the environment if it where to be the key to a quantum battery. What does that in living systems? WATER. Water makes a huge Faraday cage for H^+ spin protection and this can protect the entangled state in the mitochondrial matrix along with many other ions of atoms with a nuclear spins. These spins can react to electric and magnetic input like phosphorus, sulfur, and selenium.

The re-emitted light can still do work or move other atoms in matter. Slowing this light down

in cells with atomic collision, allows time to manifest. Time is needed to create physical action in matter. As time manifests, life can then emerge. Cells must have a timing mechanism to manage the trapped light to do physiologic work. This is why life has used a magnetic memory of nucleic acids to code for hydrated carbon based protein semiconductors that contain lattice works of a sea of electrons. Cells use this light and capture this re-emitted light and recycle itself with assimilation of this photonic energy using other electrons. Life is clever in developing this process. It figures out how to transform electrons and protons out of everything we eat and keep them under control in cells until we need them to harness and use this energy anytime a cell has a needs to live. Electrons must flow in order for energy to be gained elsewhere according to how a mitochondria is built. When electron flow stops in a mitochondrial life dies and the organism falls to equilibrium. Life is lived as far from equilibrium as possible. Because light speed is constant light is fundamentally non linear, and this physical aspect of light allows life to be possible. Anyone who believes it begins with food has a deep philosophical problem with Mother Nature and her designs within the colony of mitochondria in us. Mitochondrion are a key part of the quantum battery that is designed to take full advantage of every quantum mechanical aspect light can throw at it from a thermodynamic perspective. understanding aquaphotomics is the first step to this reality.

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