

TIME#16: TIME SUBTRACTION = LOSS OF THE SPINNING ATPase

READERS SUMMARY: HOW DOES TIME AND CANCER LINK TO THE BIO-PHYSICAL PRINCIPLES IN CELLS?

This blog is a teaching point for those with cancer. Most people know that cancer has the innate ability to shorten your lifespan and this is why this blog is in this series. Most people have the perception that cancer shortens our time but in the June 2016 webinar, we uncover principles that cancer may be a solution that nature is looking for to allow us to operate well in our new modern world. Either way, We are talking about time. In fact, the higher the grade of tumor the less time you generally have. This is the current belief of most patients and of allopathic medicine. Have you ever thought about why time and energy are linked fundamentally and really explain cancer well? Energy is a physical concept but is not really explained well in biology. In physics, it is well explained by Noether's theorem. That equation says that any symmetry, either local or global, implies the conservation of some physical quality. Cancer is a disease of a lack of energy and time. So for the concept of time, what is really conserved? It turns out, the answer is energy must be conserved for time to manifest in living things. Energy can only be conserved if the information quanta in sunlight are brought to mitochondria to help maximize autophagy and apoptosis.

Consider this analogy made in Time 9: Melatonin and melanin are biogenic amines linked to light's local effect. Let us expand this idea to the laws of physics to see how biology follows those rules. Melatonin recycling changes local symmetry therefore it affects the space in tissues and the timing mechanisms in cells. Symmetry is often thought of globally, but it turns out Einstein's general relativity, put

local symmetry front and center in physics; it appears melatonin and melanin control local symmetry of light collection for cells too. It is a proxy for how effective we collect light locally within cells. Einstein's idea was unorthodox in physics, but it appears the melatonin cycle uses his idea locally in cells. These things are both related to how light can flow in cells and tissues locally. Physics tells us energy and momentum tells space and time how to curve. As light falls to us it gains energy and momentum, so in this way it has a weight or inertia to it. That weight and inertia affect our surfaces to make things like Vitamin D3 as a chemical signal. Gravitational lensing is tied to energy flows by weight and momentum changes in light. This story [hyperlinked here](#) shows the IRF4 gene to gray hair by interfering with production of melanin. What did they forget in this story? Local control of symmetry in the melatonin cycles: the development of grey hair and melanoma are linked by melanosomes and melatonin cycles locally in cells. The genes in both diseases are not important in this process. The environment that turns it on is what is important. Light is critical in that environmental switch on or off. Losing the local symmetry of melatonin cycles from poor environmental light signals is the key to why IRF4 turns hair grey and what cause melanoma. Melatonin inhibits ECT to allow cells to recapture apoptotic efficiency to avoid cancer.

When we are not connected to magnetic flux or the sun's power consequences are altered. It also turns out our organs and tissues are not optimized, and neither is our mind. A mind is not measured by its magnitude, but by the dimensions of its thoughts. The consequences of these changes are not always proportional to the apparent magnitude of the events that produced them.

Jack Kruse

Nature's disruption for cells is dependable because we cannot control her waves so evolution built cells designed to capture her waves to make sense of them. Cells give humanity a truly unlimited trajectory because they are velcro for waves. That direction, however, can move forward or backward in time. The natural waves allowed into Earth's ecosystem that we should surf, push man to greater heights and those made by man set us back and slow and often reverse evolution. Cells are designed to be a repository of collectible wisdom from nature's energy and information. That energy and data come to cells as wave forms. Given our cellular design to capture and collect and decipher waves, ***no human being itself should be considered impaired innately, instead, there are environmental shortcomings that cause the impairment.*** Thus, it is incumbent on the on the clinician to recommend treatment of the environment their patient is in. People react to an inferior environment, way before their genome is altered. That is what the science of epigenetics and ubiquitin rates are telegraphing us, but the modern paradigm is not listening. You must.

Your hair becomes grey as % heteroplasmy rises in mitochondria and the respiratory proteins get further apart. As this happens the ATPase in the 5th cytochrome spins slower than it used to in your mitochondria in your hair follicles. The

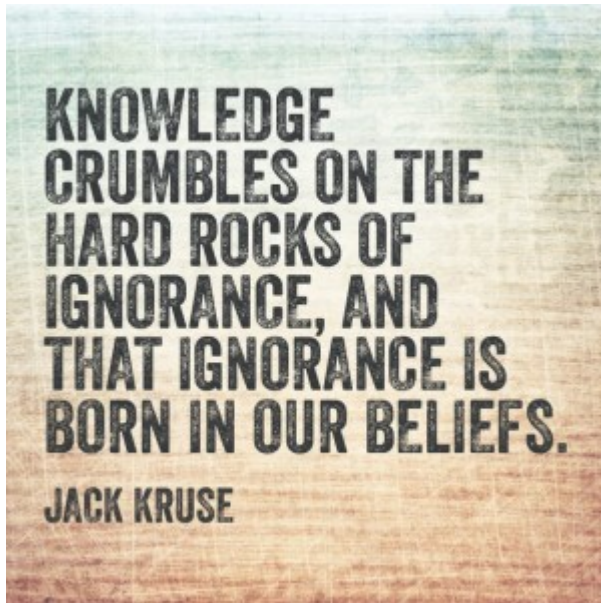
faster something spins the less time it experiences and the more it condenses and the more heat it liberates from the local mitochondria in question. **Remember heat is a red form of light.** That is what the theory of relativity teaches us but few seem to realize it. This is why red light is being used to grow and change hair color now.

This is where your grey hair comes from; just changing your diet doesn't change it but changing your light environment locally is fully capable of changing how fast your ATPase spins in your mitochondria and this controls how food electrons are handled in ECT. Food is just data about sunlight's travels around our planet seasonally to add light energy to excite electrons. *Don't try to let food or exercise be the missing key in your life, or light will stop being your unmatched lock, that doesn't let you merge on the path to optimal.* All foods break down to electrons/protons so a diet is non-descriptive variable, but this idea is counterintuitive to modern beliefs.

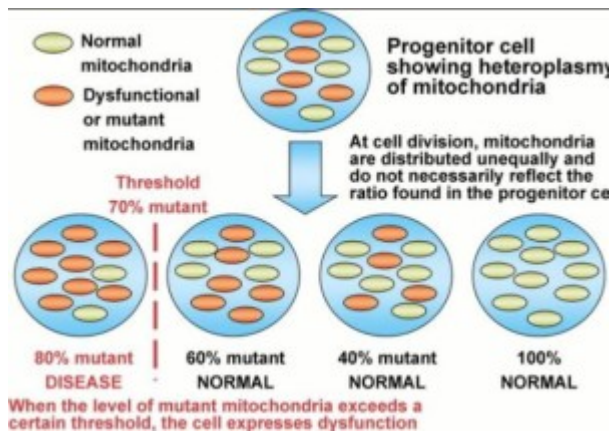


Environments control heteroplasmy rates in mitochondria, not foodstuffs. Electrons are all the same everywhere in the cosmos. Electrons all have exactly the same properties everywhere in the universe for a reason. What changes electrons? The light frequencies they are excited by or the

light they release photoelectrically. This is how energy is conserved in things that contain electrons. Electrons are conserved because they allow minimum excitations of a “filling fluid” of the cosmos. Electrons are nature’s way of building things from interchangeable parts that are fundamentally different because of the energy they contain; electrons fill the world with a fluid plasma that affects the way space and time operate to create new things in mater and in life.



Environments conserve energy by conserving time and momentum using the electron as its key uniform substrate. How electrons/protons are handled varies within mitochondria by altering sizes, scale, and energy and information flows. That is why carbohydrate electrons/protons can bother the lives of LCHF guru's, but don't bother others folks with low heteroplasmy states in their mitochondria. Environments control heteroplasmy rates, not foods. Foods basic substrate is the electron and protons. Foods provide a steady source of electrons with different power densities and protons with a varying quantum spin state when we don't get them in from the sun or from the Earth's magnetic flux. The sun and magnetic field are the environments that mitochondria pay attention too. Environments dictate what mitochondria can do with their energy. That is how energy flows in life and the information is in sunlight.



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Cancer states all have one thing in common: Apoptosis is broken and ECT is kept fast, while those diseases either lack electrons in key spots or have too many protons present which lower the thickness of the exclusion zone of water inside a cell. It sounds tough to figure out until you realize why the Warburg shift works with glucose and glutamine to maintain ECT function while inhibiting apoptosis because UVA and UVB light cannot stop ECT flow before the ATPase. Anytime intracellular water is lowered or physically changed in ways below your perception, proteins are less hydrated and this affects the physical chemistry of divalent ions like calcium and magnesium that work with mitochondria in stress situations. The velocity and chemical activity of ions are determined by the degree of their hydration and the atomic mass of things in that WATER. This is why dehydration is devastating to cellular metabolism in the cytosol and in the mitochondria. Both of these ions

are paramagnetic and drawn to organelles with inherent magnetic fields. When mitochondria are stressed their ATPase cannot spin as fast and as such their rotating heads spin less fast. As a result, these local mitochondria begin to sense time differently, and that effect is seen in the size and shape changes in mitochondria, the formation of IMJ's and in the space between cytochromes. These are the telltale signs of cellular information loss.

This blog is about asking you to consider is a lack of energy/information, the axiomatic truth behind oncogenesis?

Are bad tumor grades in cancer staging really just energy orbitals within the atoms that rush into cells and mitochondria? Does this mean high-grade tumors have more energy loss than low-grade tumors? Is this why low-grade tumors give patients more time? Grades of tumors are more linked to the amount of information in tumor cells.

Can vagal tone be predictive in energy/information flows in cells and tissues? Vagal tone is linked to how fast the ATPase spins in mitochondria and this is why vagal tone is related to longevity and time. Did you know that?

Why would I even pose this question? The more tone or sensitivity you have in your vagus nerve from the area postrema in your brain stem nuclei, it appears the more likely you will live because time expands. It works because the vagal tone is linked to hydrogen bonding networks in the water in CSF that surrounds the brain. This means vagal tone can affect energy and information transfer in electrons and protons to even help a headache in someone with a broken circadian mechanism.

Might what is written on blackboards and in textbooks of medicals protect the medical system from adopting change?

Might it keep them blind to new ideas and new truths?

Cancer and the Vagus nerve: A story about time, maybe even

time dilation

The vagus nerve connects bodies of water within the human body. The brain is like the rest of your body; if you don't use it, it gets de-conditioned with too little stimulation.

It also can be tired out by too much stress or activity from modern life. It needs different kinds of stimulation or exercise to increase its varied function and requires both rest and recovery time to consolidate its gains.

Research has shown in patients with advanced tumor stage at diagnosis, high heart rate variability (HRV) predicted lower tumor marker levels than did low HRV. I think soon when people begin to focus on the loss of ELF-UV and the GDV camera's they will see this as a more accurate way to determine their risk of illness and be a way to track their heteroplasmy % as time elapses. It turns out, estimating a cancer patient's prognosis by determining his tumor stage needs to also consider the vagal nerve activity. That is some news about time you rarely will hear in the oncology literature. It is now published.

Apparently what happens in vagus winds up on pub med even though oncology may not want that info out! Before continuing please read this hyperlink. It is critically important.

Do I have comments for the general population and those for those with diagnosed with cancer on how to increase vagal activity? Yes, I do and I have for 5 years on my blog. The information has always been pushing people toward light and away from food to rebuild their health fastest. In cancer, you must react quicker than others without the disease, because you are losing time fast. We lose time by leaking more light from tissues. It has been buried in many of my blogs and my book. Water is critical to retaining light in tissues (EZ) and linked to increased vagal tone. HOW?

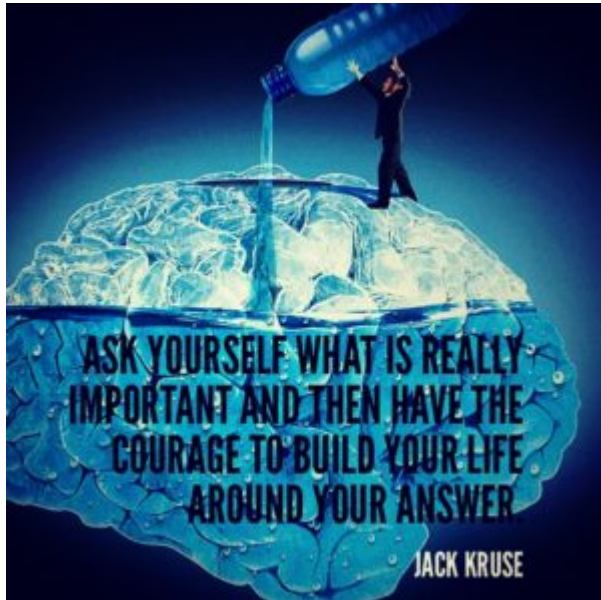
The autonomic nervous system has two main arms, sympathetic and parasympathetic. The vagus is part of the parasympathetic system. Its activity drops chronically when the sympathetic system is constantly turned on. The sympathetic system begins in the paraventricular nucleus (PVN). I have a blog on that, called Brain Gut 16. Read it at this point in the blog.

Do you think this is about specific cancers or is this generally tied to all of them?

A good vagal control is a benefit to cope with norepinephrine levels- here is a study with ovarian cancer as the target:
Hyperlink

Did you know sunlight lowers norepinephrine naturally?

The vagus nerve is the tenth cranial nerve and it connects the electric digital and analogue systems together in the brain. We test these using EEG, EMG, and MEG. The vagus nerve also is the protector of the blood brain barrier, the gut barrier and the pneumo-environmental barrier in humans. The vagus concerns itself with things that cool these surfaces but make sure the pH is perfect to build a large exclusion zone in the cells below that surface. pH is linked to a yet untold proton story. This acts to make sure the local mitochondrial ATPase spins as fast as it can because the red light that builds the EZ in water can be used to rotate the ATPase to make it a 100% efficient quantum nano rotatory engine. The vagus nerve connects the entire gut down to the transverse meso-colon of the hind gut to the fourth ventricle of the brainstem. This ventricle is filled with CSF and the vagus nerve is covered with myelin in connection with this CSF.



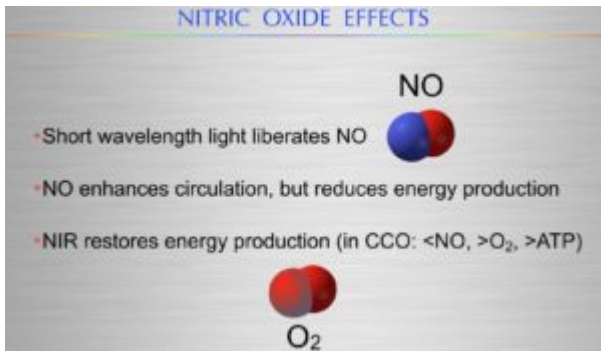
This is how the “central digital” circadian system from the RPE of the eye is linked to the SCN which sits in a cistern of CSF above your optic nerves. The “analogue circadian system” of the gut are linked to light exposure from food electrons and to the timing of food growth in the environment, so that the signals can be yoked via the area postrema (AP) and the median eminence (ME) in the brain. When we eat, 60% of blood flow is shunted to the gut’s mesenteric system. The brain senses and pays attention to these shift using the vagus nerve. The AP and ME are two areas of the brain do not have a blood brain barrier, so the electron density in the CSF is accurately tied to the local environment these neurons can sense.

The area postrema and median eminence are called the circumventricular organs in the brain. CSF is 99.9% water by volume. Both of them are bathed in CSF that surrounds the brain. This is the very same fluid that surrounds the SCN as well. The *digital circadian signals* project visible light photons from the retinal pigment epithelium (RPE) of the retina to the median eminence to affect hormone release in the pituitary. This is why ‘crescendoing’ AM light on the retina is key and why decrescendo of light at dusk is very important to get proper signaling back in the vagal system.

The analogue system from the gut's photoelectric code for food projects directly to the area postrema where parasympathetic vagal tone begins in the brainstem. This unifies how the analog and digital circadian signals in the brain work in unison to tell an organism what their energy balance is at anytime of the year by "counting electron density" in the CSF. Electron density changes the intermolecular hydrogen bonding in water to make it the ideal quantum liquid because it is fully responsive to environmental changes of anything it interacts with. Water's memory is built by these hydrogen bonding networks. We collect electrons from the sun, magnetic field and from foods. All of these things are considered electron donors. There are other chemicals in our body that provide us with electrons too, like superoxide and lactate. The more we are connected to the sun and magnetic field's flux, the less food electrons we need to eat. This is why calorie restriction data exists. No one seems to realize how calorie restriction and cancer link. Calorie restriction, like most things, works ideally in people with an outdoor existence with the surfaces exposed to the sun and the magnetic flux of the planet. Most people with cancers will be indoor dwellers under live chronically under artificial lighting of some sort.

SIDEBAR LESSON: ABOUT THE SUN

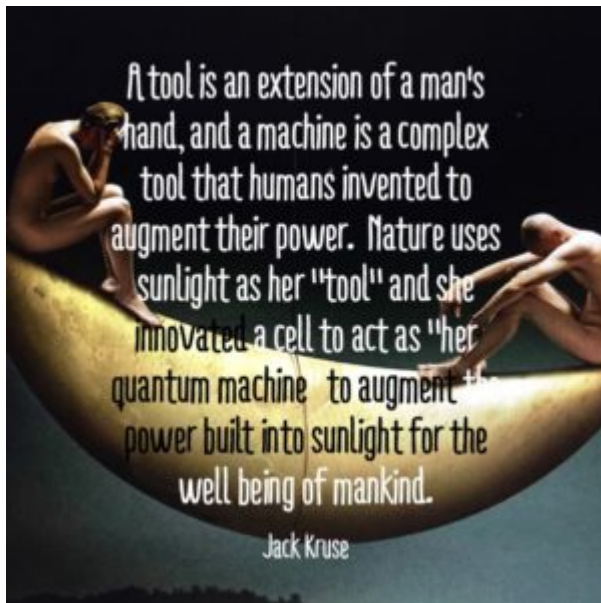
What are the human daytime photosynthetic chemicals that full spectrum sunlight generates in human skin naturally? **Vitamin D3, histamine, cortisol, and sulfhydryl groups added to cholesterol in the skin**, I mentioned in Tensegrity 7 blog post. Vitamin D3 is a natural calcium channel blocker. Almost all cancers are associated with high calcium levels that tell the clinician the person is UV light deficient. That means they cannot control the flow of electron in ECT. What does UV light really do? It reduces blood pressure because of the effect of NO on the cytochrome 4. Cytochrome 4 controls apoptosis.



Vitamin D also inhibits renin in the kidney to lower BP and affect how much thirst we have. Sunlight stimulates NO release to vasodilate the surface vessels to decrease the blood pressure in the cardio pulmonary bed. This slackens the baroreceptors and BP lowers as a result. This reduces stress and lowers anxiety because dopamine rises as a result of all these actions. That is how it works and this helps people with cancers. Cancer is a state of chronic stress and ROS in the tissues it occurs because too much oxygen is around making ROS because mitochondrial function is terrible. It also is associated with lower pH which destroys the amount of red light that can be absorbed into water. This slows the spinning of the ATPase in the mitochondria of the tissues with cancer. Vitamin D3 also turns the immune system back on and allows the pituitary to release hormones properly once again.

It also can help us re-activate the renin angiotensin axis to improve intracellular hydration. It seems counterintuitive to most people that UV/IR light can help our protein hydration status and our immune system because they have not looked closely at how these systems are quantized to solar light.

Moreover, to be more precise, the more obese or darker your skin is, the less well it absorbs UV light so this means the fat and dark amongst us need MORE sun, not less. My African American patients with T2D, and CVA's now know why they get more cancers. This is really why weight, high blood pressure, and cancer are linked in quantum fashion by way of protons around your aqueous proteins. The link is quantum because it is LIGHT MEDIATED.



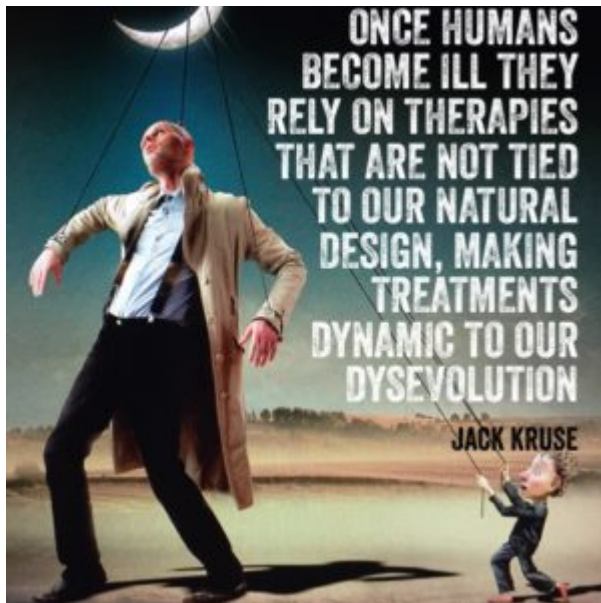
What does full spectrum sunlight destroy naturally in humans? UV light lowers adrenalin and norepinephrine the stress hormone of the sympathetic nervous system. This links UV light to the vagus nerve and improves its tone and helps our ATPase locally to spin faster. What else does it do at the same time inside a cell to improve the EZ? The EZ begins to grow with red light and then it gets larger when UV light is added as the day goes on. Why the EZ absorbs at 270 nm = UV light.

This all assumes your body and eyes are interacting with the sun as you're designed too to get the physiologic benefit. When you are in AM light all cells become acutely stressed by AM blue light by design (blue = ROS) but that stimulus is balanced because red light is also present by a similar amount of red, and this results in our cells in the eye and pituitary gland's mitochondria to release small amounts of ELF-UV light as a signal to the hormones in the endocrine system. As the morning progresses, UVA shows up and changes the spectrum of sunlight for the first time. The blue light of the AM is designed to un-zip collagen in us to allow water to flow into these spaces to wake us up. AM UVA photons re-zip collagen that cortisol initially released at 4AM to begin the process of waking us up. Why does that occur? Because blue light stimulates water flows through AQA-4 gates between glial cells and neurons to wake us up. That process using the blue light

needs to be curbed by using the naturally appearing solar spectrum of sunlight. It is in AM sunlight by an equal amount of red light. This balances the effect of blue ROS generation. When it is not curbed because we live under an alien made man sun, seizures can occur. This become worse if the light is flickered or it is polarized. Depression can also manifest in this type of lit environment. This is why vagal stimulation works to curb seizures and treat depression too! Vagal stimulators have FDA indications for both conditions and now you know why. Light between 465nm and 500 nm begins to unwind to wake our body and mind up at dawn from sleep. AM sunrise has equal parts of the blue, green and red light. The blue light balanced by red light is what wakes us and turns on hormone release in the pituitary gland.

Now you can see why the second hyperlink relationship exists in ovarian cancer, huh?

When the sun rises there is no UV light normally, except at the equator, in it early in the AM because of the obliquity of the sun's rays through the atmosphere. This changes based upon your location on the planet with the time of the day. So UV light shows up and changes our surfaces most quickly in the equatorial zones and slowest at the poles. Many studies show the further you go from the equator the more cancer you'll get. Hyperlink alert.



When we are missing UV and/or full spectrum sunlight in someone who is chronically stressed, sleep cannot be induced. This is why a day at the beach in nature is so restorative to sleep. This is why people fall asleep like logs at the beach. Think about your childhood when you spent the day at the beach and got a sunburn. This induces sleep. The redness comes not from a sun burn, but from the increase blood flow to the skin to absorb the UV light because porphyrins and hemoglobin are brought to the surface to absorb UV and IR light. ***The amount you absorb and need is a function of your skin anatomy and the melanin content in your skin with your sun callus.*** You develop a sun callus based upon the choices you make which link to the dopamine levels made in your eyes that generalizes to your frontal lobes and your brainstem. Deep sunburns can result in excessive sun or thin skin or a poor adaptation to seasonal light due to clothing or sunblock use in strong light cycles. **SIDE NOTE OVER.**

With in CSF layers, there also is a stratification of water by density as well. This is another example of a fractal design of how water stratification occurs in our oceans to create different oxygen tensions at surfaces and depth. The cooler water always have higher oxygen tensions. Cooler water always has a higher density of electrons, and electrons allow light to interact with it instantaneously by the photoelectric

effect. This is also how the central clock and peripheral clocks yoke the photoelectric effect from the different sources in our environment. It should be intuitive now why environmental mismatches in the brain are perceived as a mixed message by our leptin receptor in the hypothalamus now. The "time series" is making these connections for you, but you must understand the connections to your personal light environment. If you have cancer is clear you want more time to fix and repair the environment you initially got ill within. If you do not fix the light environment and lean heavily to food or exercise you will only partially be helping yourself. Fixing your light environment is the key missing piece.

Your leptin receptor's job is to count the electron density in CSF that surrounds it to send this information to different areas of the body. When we have any mismatch in the photoelectric signaling in the hypothalamus, the result in a cell with the leptin receptor is molecular crowding. Molecular crowding is a synonym for inflammation. Inflammation can be acute or chronic. Acute = either a lack of electrons or too many protons. This usually won't cause cancer but will cause many diseases. Chronic inflammation usually has both a lack of electrons and too many protons. On a chronic basis this leads to cancer because it ruins mitochondrial functioning.

Inflammation is a synonym for leptin resistance in the literature. This is how you should perceive it from here on out when you read the literature. Inflammation comes in several forms, too many protons, or too few electrons, or the most common case in cancers a little bit of both on a chronic basis. This has to be attacked by your new understanding. Do not let anyone talk you out of this. Where does diet and cancer come together? Most oncologists will tell you diet is immaterial to cancer because they have no nutritional training and they have no basic understanding of how light, water, and magnetism are broken down in cancer states. Fats provides more electrons than protein do, but protein is more

thermogenic (causes IR release from mitochondria) and it is also energy efficient because it lowers the cost of protein ubiquitination when autophagy is broken or inefficient. This is why My Leptin Rx uses protein over fat initially for people with high heteroplasmy %.

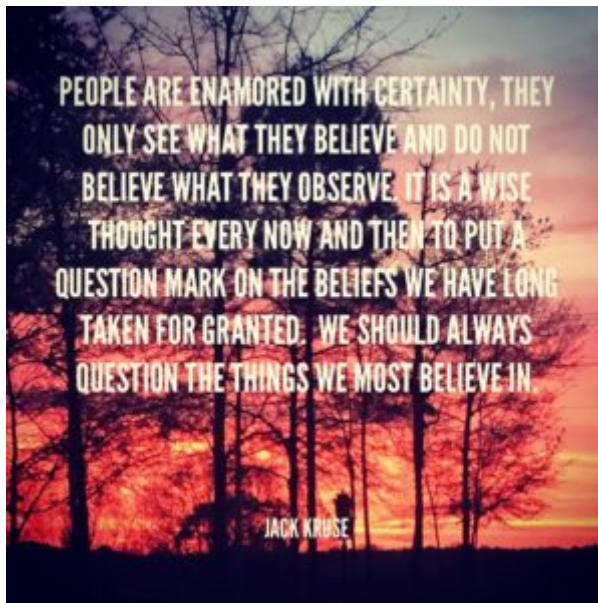
This makes '*nutritional ketosis*' a short term therapeutic bandaid until you repair your light environment to get rid of redox shifted mitochondria associated with cancers. Remember unopposed blue light cause massive ROS and stretches out your mitochondrial proteins, Red light shrinks them, and purple light regenerates them. Use nutritional ketosis wisely, but realize it is just a short term tool to help buy you time in a cancer state not a permanent lifestyle you should lead. When the processes are broken down by chronic blue light exposure, cancer is the usual result. This is why cancer rates are exploding since the wars between Tesla and Edison began in the 1890's in my opinion.

So the game plan for cancer is to stop the outflow from the PVN and stimulate the vagus system. How do we do this when our time is being robbed by a cancer?



VAGUS exercise Rx: Become a water muse.

1. You cannot find wellness in the same environment you got ill within. That is nature's rules not mine. We have to pay attention to this chronic disconnection from nature or illness will begin and manifest. You have to embrace a water existence because water is a natural Faraday cage. You want that cage built inside your cells in an EZ format to protect you from nEMF's of all types and restrict calcium flows; this will allow you to stimulate your vagus nerve while muting your PVN.
2. The light environment your eye, skin, and aero-digestive system pay attention to is the key. The information comes from the penetration of sunlight via the pupils and via the meridians that allow deeply penetrating red light to enter to affect your mitochondrial ATPase at these levels. This is why the body is segmentally organized to distribute the light stimulus from the local environment even though it is below your sensory perception. We can now access these things using GDV camera's and photomultipliers. Realize it and change these aspects of your life at once. It will mean major moves will have to be made and this will not be comfortable. It will be hard to accomplish this because in most epi-oncogenic states dopamine levels are at the lowest levels making coming to the right choice an impossible task. This is why you need to enlist a friend to help you. Often times your family will resist the choices you will have to make. The words "crazy and unreasonable" will be heard echoing in and around your



home.

3. You must reconnect with nature at once. This means every morning you must see the sunrise and every night see the sun set. Your surfaces must also see the daily natural solar patterns. Do this before you do anything else.
4. You must limit all artificial blue light and non native EMF as soon and possible. **Using water daily is a key part of this hack.** Install a small in home waterfall somewhere in your yard/solarium/home where you will dedicate your time. You must reconnect your vagus to your innate watery muse. Falling water brings the **Lenard effect** to your environment.
5. You must begin meditation to improve your breath. Learn to use deep/slow belly breathing. Exhale longer than you inhale. The vagus nerve innervates the lungs and thoracic cavity. Chanting the sound 'OM', as a monk would do also works to tone the vagus nerve. I do this when I am in an isolation tank to sensitizes my vagus nerve to a day in my operating room. I also chant a bit before I consider using carotid artery massage for my real stressful nights of trauma call. This will also calm you down and have an amazing effect on your blood pressure. It is even better if you control the light environment you are in when performing this hack. I consider it my version of in-home chemotherapy for

stressors I face in my job. Consider buying a quartz sounding bowl and learning to use it to use sound to rebuild your EZ inside your cells.

6. Cold water face immersion after exercise also stimulates the vagus and the mammalian dive reflex. I spoke about this in the CT series. Filling the mouth with cold ice water or cooled saliva and submerging your tongue to trigger a hyper-relaxing vagal response. If you really want to push it putting crushed ice in your mouth with cold water really stimulates the ramus lingualis of the vagus nerve in the mouth. Stimulating the vagus nerve naturally with light and breath with these hacks above will far outperform any other maneuver. They are all easy to do and free to try. I've taught many members this during live events.
7. When you really improve your condition, you might even consider learning free diving breathing. This is an advanced form of vagal stimulation. I've used this for bio-hacks in cystic fibrosis and and multiple sclerosis successfully.
8. Artificial vagal stimulation is possible with a vagal nerve stimulator, but there are no indications for use with cancer at this time. I have a sense this might change with time. The most interesting link for cancer patients is the depression link. Depression and cancer are tightly coupled. Depression is always associated with a stress response and a low DC electric current in tissues. Low Vitamin D3 levels are an ideal proxy for depression and cancer links. Depression and cancer diagnosis are often linked in life and in the literature. Your doctor may not make this link for you but you must.
9. Vagal stimulation improves all of the following as shown in a pub med search: It turns on and amplifies neurogenesis, helping our brains sprout new brain cells. Rapidly turn off the stress, hyper-arousal, and fight/flight via the relaxation response. Sharpen our

memories. Fight inflammatory disease. Help you resist high blood pressure. Block the hormone cortisol and other oxidizing agents that age and deteriorate the brain and body Block systemic (body-wide) inflammation which is a major factor behind aging and poor health. Help us overcome depression and anxiety. Help us sleep better to regenerate the immune system to fight the cancer as nature has built within us. Raise levels of human growth hormone. You will often here growth hormone is a bad thing for cancers. Exogenous growth hormone is but not the growth hormone from your own pituitary gland. It help us overcome insulin resistance and natural sunlight gives this the best massive boost. Dealing with insulin resistance with food is a futile battle if you are not getting full spectrum sunlight via your retina daily. Vagal stimulation can turns down allergic responses and immune response that overshoot because of poor signaling due to inflammation.

Inflammation = protons and pH is a measure of proton gradient. The lower the pH the lower the thickness and power contained within your exclusion zone of cell water. This lowers chances of getting stress, seizures, and tension/migraine headaches. Help spare and grow our mitochondria by stimulating autophagy and avoiding apoptosis; this is a key to maintaining optimal energy levels and not causing massive over expression of our DNA and RNA machinery that occurs in cancer states. It gives you more time to affect the environmental changes mentioned above. Affect our overall ability to live longer, healthier, and more energetic lives.

10. Use of isolation tanks in heavy water with a combination of artificial UV and IR lights within the tub or its environment is a consideration. Humming and listening to running water in this state markedly stimulate several senses that the vagus nerve monitors. I have used some optical hacks with light via my eyes to augment these effects. I will be speaking about them in

the June 2016 webinar. This might be hard to pull off in your home, unless you build your own as I have. You can simulate it in a spa or hot tub.

11. Exercise to stimulate deep breathing. Breathing stimulates cooling because of the effect of CO₂ over our lung surface. This can vary depending upon the person's condition. The exercise must be done outside with as little as clothing on as possible.
12. Avoid sunglasses at all time. If you wear contacts remove them and go back to glasses. When outdoors take your glasses off. When indoors make sure you are blocking blue frequencies 400- 465 nm with blue tech lenses or some equivalent. ***You vagus nerve rami comes to the surface of your orbit around your eye muscles and blocking frequencies of light can and will alter the size and shape of your eye to alters vagal tone. This is controlled by the radix oculomotoria. Just stimulating your eyes with rubbing them can sensitize your vagus nerve.***
13. 15 minutes of sounds of falling water or crashing waves, waterfalls, or splashing rivers will give you a 20-30% drop in stress hormones (cortisol and epinephrine) This can stimulate the vagal rami in the ear and ear canal. You don't always need to meditate to take advantage of this because water alone can meditates you. The vagus nerve and water are intimately tied to all of our senses in ways that are quantized to the dissolved gases in water to make vibrations. Those vibrations can positively affect mitochondrial resonance. Dr. Doug Wallace has found a key frequency for optimized mitochondrial function and the geometry of the respiratory proteins on the cristae. Soundscape ecology helps soothe the PVN and stimulate the vagus nerve because our sound processing systems were built to be attuned to the smallest sounds. This phonon tuning began in the womb when we were surrounded by water. Today's urbanized noise is not just annoying, it has

been found to be lethal because it can generate solitons on cell membranes that alter vagal tone to our detriment.

14. Looking of pictures of the ocean daily can also have the same effect because it alters our mood according to cognitive neuroscientist Petr Janata from Univ. of



California at Davis.

CITES:

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