UBIQUITINATION 6: UNCOUPLED CYCLES UNCOUPLES KNOWLEDGE

READERS SUMMARY:

IS HEALTH A FUNCTION OF THE ADVICE YOU FOLLOW?

IS IT CIRCADIAN BIOLOGY THAT INFLUENCES THE LEVEL OF HEALTH WE HAVE?

WHY ARE THE LEADERS OF NEW TEMPLATES AND LIFESTYLES FALLING APART?

Our normal tendency in illness is to see material things in disparate fashion; the physician's job is to discover the thread that unifies, links, and weaves the separate ideas into one common thread.

This thread, taken by itself, can not lead to knowledge, but when woven together with other disparate observations, may weave a quilt that begins to make sense of the observations as evidence of disconnected cycles that were once joined. Sometimes when growth and metabolic cycles become uncoupled from environmental circadian signals, the evidence we are looking for becomes very counterintuitive.

Remember this from earlier in the series?: HUGE COUNTERINTUITIVE TRUTH BOMB: Few people seem to know that glucose down regulates the circadian clock genes that are in front of every human gene. In my opinion, this is why a Warburg metabolism is selected for in oncogenesis. The cell is trying to slow circadian clock genes down altered by our environment and can't. Glucose is its only hope, unless the environment is changed. It uses a Warburg metabolism as it's last ditch emergency break to an artificial lit environment.

Might this is why modern medicine and oncology are lost in

curing cancer? Might it be an epigenetic disease of altered light frequencies? Could that artificial light, some how affect proteins coupling ubiquination to the cell cycle? Scientists are looking in our genes for a mechanism, and most get lost blaming carbohydrates, when they need to examine photocatalytic alterations of small proteins that couple these cycles together?

It is circadian biology that influences the level of health we have. Food is but a small part. You can't defy mother nature's laws of human biology and expect great results. Health is a function of our epigenetics and our environment. Food is not a genetic story either. Food can't save you from either.

Carbs are not the enemy, contrary to what you might have heard. Your modern environment is why you have trouble with them. In fact, the belief that you are "metabolically deranged" is one of the catch phrases I look for in patients for environments over run with fake light and non native EMF. I usually find autoimmunity, persistent obesity, eating disorders, and major hormone problems in these patients. So why do I expect this? When biology is uncoupled from light many counterintuitive things happen and should be expected. People who believe, ketosis alone, will solve problems are suffering from flawed reasoning.

Uncoupled cycles in biology uncouples the knowledge we all assume is still true.

> This is AFTER 18 months of ketosis? Something is not correct. Do you think he'll change is ideas, or continue as he has for ten years?

Ketosis is part of a bigger idea in life. Ketosis is a method

for Cold Thermogenesis……..cold exposure enables us to tap our fat mass, to cool our body surfaces; it is not about the food you eat. People just don't follow the science…….When ketosis is uncoupled from how it should work, we get bad science and ideas; (insert Jimmy Moore above). His results alone, should have forced him to think differently about this situation. God knows I have tried to help him but his beliefs wont allow him to see this perspective. He has been using nutritional ketosis for 18 months now and these are his results. Uncoupled systems behave independently of each other, when light is coupled to metabolism, they minimize side effects when one system fails, as a result, When light is uncoupled from metabolism everything tends to fail. This is the essence of how systems are built in biology.

Our "thinking tools" about the resultant health issues should change in this situation, Why? Ketosis uncoupled from light will lead to partial success but cannot reverse all ills. This is why I expect what I expect in people who believe as Mr. Moore does. I see thousands of LCHF people a year in my clinic and online, with this defect in thinking. Jimmy is institutionalizing this belief through his work on line. This is a problem for me, as a clinician, because I took an oath to do no harm, when I know harm is being done.

We need to think in an "uncoupled fashion" about these situations, as they evolve, and we are not today. Our current ideas about ketosis are based in how it functions when cycles remain coupled, hence, Mr. Moore's ideas are not optimized for a microwaved world filled with blue light. Moreover, they need to be as scale-dependent, and as accurate, as possible, because in order to account for our new perspectives, implications will arise from these insights. This series is about those insights. These insights are not commonly thought about today in medicine, LCHF or in paleo.

> Jimmy in 2005 when he ate carbs and had not eaten too many blue light frequencies. He said this Atkins diet stopped working so he changed. He forgot to change the key factor. His blue light and non native EMF desserts.

Natural harmony requires seasonal destruction and renewal. Without renewal we cannot sustain. **We have to come apart so we don't fall apart.** Ketosis without DHA, will not work long term. The sun renews plants, they renew us, we renew them, night renews day. Each season renews different aspect of life. Water is the scent of our renewal. Water and DHA create the battery for the sun to create the spark life needs to operate. Focus your intention on what you're building in your environment, not what has already fallen away.

There are people who mitigate their environment well, and they use carbohydrates the way mother nature intended……to make superoxide. Most people today, however, do not fit this lifestyle. This is why I am a big proponent for seafood laden brand of seasonal ketosis. Your job, as a patient or person following advice, is to figure out are you one of those people who do a good or bad job of bio-hacking your environment or not; then adjust your dietary beliefs. Here is a recent video clip of Mr. Jimmy Moore after 18 months of nutritional ketosis. Jimmy Moore is a nice guy, who has failed this test, big time, in my mind. He chronically overdoses on fake light, twitter, podcasting, and social media and he wonders why he has to stay in nutritional ketosis year round? It might be different if he had a karyotype problem, but he says its about carbs. Just following Jimmy on social media one can also learn he now has family members who have now come down with autoimmune conditions. This should be

a huge clue something is amiss. I want to help, but you can't help someone who won't help them selves, because of of their beliefs. It becomes even harder when your current beliefs are how you make a living.

The answer for him is always the same, it has to be carbs!!! They are his nemesis (*his belief*). How could they be when these are his results, in the pictures, were gotten sans carbs? I think there is something else behind the curtain with Jimmy. Could it be a karyotype problem? If his beliefs and his doctors where smart they would check his superoxide burst. Something other than food is his problem and it is easy to diagnose if you're a clinician based upon what Jimmy has shared publicly. I bet his superoxide levels are markedly altered, NAD+ levels low, yet correctable. I bet those who are in his environment with him also would find the same result. Why might I be correct in my assumptions? I believe the environment you allows dictates whether you can handle glucose or fructose well. Infertility is tied to an altered superoxide burst at cytochrome 1. Inducing electron leakage from mitochondrial complex 1 generates a peroxidation-dependent loss of sperm motility. You would think this was a big clue he might be wrong, because of his public announcements regarding his infertility several years ago. Evolution will limit procreation when you accept a very altered environment. That idea is not controversial. Jimmy is very strict on his diet and exercises diligently. I know this and I have seen him in action. **In fact, for me, he is the perfect example that food alone, can't repair a bad environment.** That is the purpose of this series. You need to see a new perspective about what an uncoupled circadian cycle from a metabolic cycle would look like. Jimmy is that example. These beliefs are overwhelming in our world, and in my view, is harming many modern humans needlessly. He also demonstrates little muscle mass, has poor body composition,

with low testosterone levels. Yet, he also diligently exercises. I have seen him do it in the events we were both at. What is the lesson here? Is this a chromosomal problem or is **nature is a self correcting system without sentiments?**

Jimmy at a recent book signing in North Carolina.

KEY POINT ***Nothing in the world is more dangerous than sincere ignorance and conscientious stupidity.***

These are the results and side effects one should expect from a toxic diet of blue light and non native EMF in your environment; it was explained, in detail, in ubiquination 1. Jimmy never talks about ubiquination, and it is not a hot topic in low carb high fat or paleo groups. This tells me they are missing a big piece of the real story behind why we are all getting sick in the 20-21st centuries. Jimmy has been very public about his health issues, and I commend him for it. I like Jimmy a lot, but because he is now a low carb celebrity, I am worried he may hurt more than he will help. His results to date have not gotten him to the promise land and his close friends and family are struggling too. Because Jimmy makes his living speaking and writing about his own issues, I don't believe I am being an ass about this or stepping out of bounds here.If I did not care about Jimmy I would let him continue on to kill himself. I spoke to Jimmy in LA about his brother's demise, and it moved me. I know Jimmy's heart is in the right place, but I do not want to see him follow the same path of his brother, and I am afraid it is happening to him and his family, without him realizing it. His public persona and schedule is overwhelmed with "***side orders of frequencies***" laden with non native EMF and artificial light. In my opinion, ignoring this conflict

allows him to maintain his current beliefs about carbs, that most carbohydrates are the devil. In my world as a surgeon, that is as bad as Dr's. Steven Nissen stance on statins or Eric Topol's stance on technology helping patients. Carefully read what I wrote about ketosis in ubiquination 3.
ENVIRONMENTAL CONTEXT MATTERS.

In a mismatched microwaved world, high fat protects and mitigates ***just a small dose of non native EMF***, but it won't reverse a disease or condition, until you get circadian cycles right. Jimmy needs to be reminded of that, as you do, and maybe, he'll begin to realize why people close to him have gotten Hashimoto's, while livin' the low carb life. I can no longer support those who harbor beliefs, sans results, because of a deep lack of understanding is present.

Jimmy's intuition may be guilty of a Freudian slip here in the following tweet. **The frequencies of blue light and non native EMF are also foods and side item on his low carb journey…….and if you gorge on them, you get results that food alone can't repair. I'll let you decide, if this hyperbole or insight. *"Mental" maybe the operative term here.* If you keep doing what you have always don, and you expect a different result, that defines insanity.**

New Rule: **No human being itself should be considered impaired innately, instead there are environmental short comings 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 and their diet is not capable of overcoming it.

This brings up another interesting observation: **Why are the women of paleo falling apart?** Might it be, because women are

all built by evolution to be to more sensitive to environmental cues, to pass them to their offspring. Could blue light and non native EMF affect the relationship between the mitochondria and the nucleus? Ubiquitination 5 shows that light and water chemistry are directly effected. Do they have the same defect in knowledge that Mr. Moore has? Let us have a look.

Paleo example number 1: PaleoMom

Paleo example number 2: Paleo Parents

Paleo example 3: Primal Palate

Paleo example 4: Belle Gibson's brain cancer

The irony in Belle's case, is her cancer came back after building an app for the apple I-watch in California. She clearly does not have any clue of how these two things are related. Moreover, her version of a vegan paleo template that is loaded with sweet treat carbohydrates while she has brain cancer. You can see this on her twitter feeds. This is the Rx for a disaster in waiting, which brings us to another inconvenient truth.

Haven't we been told that paleo can cure or avoid these diseases? I just re-read the old covers of Mr. Wolf, Sisson, Jaminet and Kresser's book and see the same claims of their paleo diets. So what gives here? All of these nice folks were on the paleo diet before these posts appeared for quite some time. BEFORE these diagnosis came from no where? Might paleo be mistaken about the root causes of diseases, too? In the face of the data and relationships in this series, I think it is a fair point to raise.

Health is also a function of the advice you follow.

Jimmy happens to be on “very friendly terms” with the paleo leadership, who believes that a high protein grass fed diet is great idea to stave off disease. So let us go further down that rabbit hole. Are paleo beliefs fundamentally correct in their science? **Do their current beliefs fit the science of ubiquitin coupling to light?** ***Could personal monetary gains be blocking them all from a very inconvenient truth?***

LET US EXAMINE WHAT THEY MAY BE MISSING

Eating tons of protein all day long increases mTOR pathways. There is nothing controversial here. The mTOR pathway is “downstream” from the Insulin/IGF-1 pathway. But here is where it gets interesting. The mTOR pathway completely “shuts off” autophagy and stimulates protein synthesis. What has this series been about? Ubiquination. Ubiquination = protein recycling and synthesis. The paleo diet causes up-regulation of mTOR and Ubiquitin marking of proteins. This would lead to the result the women of paleo seem to be getting. This is the primary “danger” of eating too much meat or protein (i.e. stimulating the mTOR pathway). The ancestral health and paleo community, still today, advocates these behaviors. They also advocate brisk exercise in this modern world. Look at the pictures from any paleo fx conference. Their generation and tribe, also happens to use technology, in the same fashion to Mr. Moore.

When we eat more protein, the science says **we should exercise less**, not more, because mTOR will be stimulated further!!! Hyperlink. So, their advice on exercise is WRONG and not factual, based upon what we know about proper coupled cycles. The data on protein consumption and exercise is well established but completely overlooked by ancestral groups. The more you exercise, the more fat one should consider in your diet. Here Mr. Moore gets something correct, but for the

wrong reasons. He does not realize the fats need to be augmented with massive amounts of DHA. We should eat less protein and more fat, otherwise you increase mTOR. This effect is magnified in a microwaved world. This is why the women of paleo have gotten the results they have. I predicted in Austin at the original Paleo Fx event this was coming. They scoffed and laughed. Who is laughing now?

So, this raises a point for us all, what should you eat post work out in a microwaved world? First, your exercise should be natural and connected to the environment. Erwan LeCorre, is one guy in ancestral health, who gets the exercise part down pat. The conventional advice from RD, nutritionists, chiropractors, functional medicine paleo practitioners, is post work out, carbs or protein are best. **Is it true?** I do not advocate that, have not advocated that, and would not advocate that. Why not? If we want to shut down mTor, we should fast or drink cold water post workout…….Why? Nothing to eat = Intermittent fasting (IF) = AMPK = autophagy. (See below why details matter)

IF gets us to autophagy and to superoxide burst in our mitochondria, without the drama of increasing signaling in the IGF1 and mTOR conundrum. Guys like Ron Rosedale, have warned Wolf, Kresser, and Jaminet that advocating carb refeeds post work outs is dangerous game of chicken. Guys like Ben Greenfield, have been dutiful in bio hacking this area, to find out their truths. So who is right? Well, the answer is not in the food, but in the environment you allow yourself to exist in while eating that food. **It turns out, your zip code is more important than your genetic code in this case.** This idea might caused some of you to fall off your stool.

IFing could have been thought of as a synonym for autophagy in the pre-1930 un-microwaved Earth. So you need to offset this unbalanced eating schedule with a massive protein breakfast load to get same effect today in our 2015 microwaved world. This is why the Leptin Rx suggest your largest load of

protein should come earlier in the day when sunlight frequencies are ideal.

Why is the advice to eat nothing, post work out, sensible today, in a microwaved world with a large breakfast? What did the calorie restriction (CRON) data in 1930 show? It worked in most animals tested. Why did I have a disagreement with Ron Rosedale 4 yrs ago about CRON on the paleo hacks website? I told him I expected the new CRON data in primates/humans to be different, with mixed results, and not special and show conflicting results compared to 1930. Moreover, I stood firm in my beliefs that CRON ultimately would become less effective as time went on. Why? Technology use is growing exponentially. I predicted 4 years ago, CRON eventually would not work at all, in our modern world without big protein load in AM? HYPERLINK.

Dr. Rosedale, invoked the mTOR argument, supported 100% by pre microwaved data. He forgot one detail. **He forgot that the Earth of 1930, when the CRON data first appeared, is no longer representative of the Earth we inhabit today.** The science of ubiquitin never shows up in Ron's book or in his eating plans. If you dont account for it, you dont believe it matters. That would be a grave error. I think this series is making that point, in extreme detail. The latest CRON data in primates has been disappointing and mixed, to say the least. In four short years, the warning I gave Ron has now come to fruition. You might understand now, why, I said it back then now. Back then, you might thought I was a loon, but what might you think about that advice today? Do I see something no one else is paying attention too?

The reason to understand the mixed results is simple: It is not about the food we eat, it is about how the environment we allow process electrons from food these primates are forced to live in. HYPERLINK. My bet is the Wisconsin group currently working on primate CRON, will muddy the water again and show a small benefit. It will continue to be studied and as time

goes on……less and less benefit will show up. Ubiquitin is why I make this bold claim. I understand this science, and I dont believe LCHF and paleo do. I tried to be a canary in the coal mine 4 years ago. All I got was soot thrown on me.

When you have tightly controlled food studies and get opposite results what does that mean? **Quantum mechanisms from the environment are likely altering the results of your experiments.** None of these things are controlled in CRON experiments. This is the basic message of the ubiquination series. I have been pointing out is this fallacy of food as the major driver for epigenetics. I have been subtle, but the data supports my contentions now for quite sometime, in many different ways. At paleo fx I warned them I was coming with boatloads of data I maybe right, but in 4 years paleo has become a marketing gorilla. When money is involved, truth gets to play second fiddle.

I knew then as I know now, that people truly do not understand that our environments physics control how mitochondria work. I tried to be kind and helpful back then until they attacked the messenger and not the message. People cannot fathom that food is not the driver of wellness. The alterations in environments ultimately determines the results we get. Until we begin controlled studies using light and non native EMF exposures of food and CRON, we will get uneven results in the primate tree. Altered environments, alone, increase glucose metabolism irrespective of food. Nora Volkow has shown the world this in 2013. Paleo, LCHF, and medicine have ignored her ground breaking work. PaleoOsteo pointed it out to Bell Gibson. She is another paleo woman who health was destroyed by her diet and her non native EMF template. No one seems to be paying attention, but I do.

TRUTH BOMB: The modern CRON trials on monkeys uneven results, also points out, food is not the driver of epigenetics, but the environment we live in is.

Now, if you follow Dr. Rosedale's beliefs continually, by inhibiting the mTOR pathway avoiding protein, and by eating fat, it is probably not a good idea either. Why? This is what Jimmy has done for 15 years. Where has it gotten him? He is better than he was at 450 pounds but what about all the other issues he has not reversed? Is there more fat on the bone for him if he repairs his environment. I think you know my answer. The modern microwaved world is raising ubiquination rates naturally, so we need protein at some part of the day to offset this biologic cycle. Proteins marked for replacement must be replaced, regardless of cause, because it is very important to synthesize proteins for reproduction. This becomes an issue for younger LCHF's enthusiasts. Here, we begin to see where Mr. Moore's problem begins to blossom for clincans who think like me. This solution maybe good for older people for longevity, but not child bearing aged ones. Jimmy results speak volumes themselves. The paleo solution and blueprint in these cases, has been to "carb up" their diet to maintain fertility. Listen to any Kresser or Jaminet podcast on this topic and see if that is not what they advocate. This solves short term fertility issues, and opens a long term longevity problem. WHY? This opens the door to IGF-1 problems. Long term activation of IGF 1, in the face of a microwaved environment, seriously shortens life and brings on illnesses more quickly. This is why the women of paleo are falling apart. I predict that this generation will see rapid alterations in health, despite their diet. I have told them that publically for 4 years and they just snicker insults. Money is powerful anesthetic for the truth.

WHAT MIGHT THE SOLUTION BE?

So how might one deal with this increased stimulation in both mTOR and IGF1 conundrum? The AMPK pathway couples to both pathways, so it might hold the answer. This is one of the major pathways that also activates autophagy, as I mentioned, in here. AMPK is activated by both exercise and fasting, but

requires leptin sensitivity to light in your environment first. I wrote a blog called leptin and IF four years ago. You might have a look back there to see if I did not tell you circadian cycles trumps food, even that long ago. The AMPK pathway is a "cross-talk" pathway between mTOR and the Insulin/IGF-1 pathway. It couples and regulates both via light activation. Activating AMPK inhibits both of these "bad" pathways. This is why fasting and drinking water, alone post workout, with Cold Thermogenesis at night is the way to go when faced with a microwaved environment. Few people seem to know that chronic cold exposure not only increases AMPK activity in brown and white adipose tissue, but that it does so via distinct signalling pathways.

Besides exercise and fasting, AMPK can be stimulated by three hormones, some drugs and many natural compounds. The most potent AMPK activator is muscle contraction. This is why exercise lowers protein requirements. The three hormones that stimulate AMPK are thyroid hormone T3 and two hormones secreted from fat: leptin and adiponectin. AMP synthetic analogs need bio hacking……Ive done some hacks on them. I've used PQQ and gotten equivocal results. I've used 5-Aminoimidazole-4-carboxamide ribonucleotide. It is an intermediate in the generation of inosine monophosphate. AICAR has been shown to increase endurance in rodents by 44% without exercise…..and when you add HIIT to it……..watch out. the cheapest best activator for AMPK for me, was topical nicotine. Nootropics/drugs that activate AMPK include: metformin and aspirin. Aspirin has an added benefit as an uncoupler of ox/phos. This is why, if one considers it, it should be taken at night. Few realize it works better at night, in humans. Even aspirin shows and environmental effect. Natural compounds that activated AMPK include resveratrol (SIRTUINS) , pterostilbene, curcumin, EGCG, betulinic acid, Gynostemma Pentaphyllum, Trans-Tiliroside (rose hips), and 3-phosphoglycerate; this last one works with the shuttle in the Pentose Phosphate Pathway, called G3P shuttle which can use

carbohydrate carbon backbones, to act like fat intermediates to activate the PPP. This happens best in dark cold environments. That is why this pathways in biochemistry began deep in the oceans at vents, in the crust.

Sirtuins are enzymes that remove acetyl groups from proteins. The most important ones it deacetylates for autophagy are 3 proteins that are crucial to the autophagy system of "cellular housekeeping". These 3 proteins are Atg5, Atg7, and Atg8.

SPINE SURGERY TRUTH BOMB: SIRT1 activation protects cells in human degenerative discs from death by promoting autophagy. This is why fasting has been shown to eliminate back pain. SIRT1 activator, resveratrol activates SIRT only. NAD+, NMN, and NR all activate Sirtuin enzymes (all 7 of them), whereas resveratrol only activates SIRT1. SIRT 1 and 6 are key for humans……2-5 are for other mammals. SIRT1 activity is dependent on having enough NAD^+, but activation of Sirtuins and downstream autophagy genes doesn't seem to follow a good pattern in a microwavd world because this wold decreases NAD^+ and favors NADH production. This stimulates back pain. NAD^+ is a ketosis story……..but NAD^+ and SIRT need lights action in circadian cycles to be optimized, to be fully yoked to metabolism and this is the key point. DHA stimulates NAD^+ because it is the only lipid in 600 million years of eukaryotic evolution that has the ability to turns light into a DC electric current or vice versa. This deceases pain by shrinking the ligament flavum (loaded with sulfur) and electrifying the erector spinae muscles to stimulate muscle growth. We can see the long term effects in MRI's. I just shared one of my spine hacks I use daily in my clinic. You must have no dehydration for this to work. So I always look at BUN/creatine ratio's as a proxy for this.

So when I am stressed from work and I have back pain, and can't use wine, how do I stimulate autophagy? What if I ate

lots of protein and not seafood in this scenario? I use the **Nocturnal Exercise Rx.** I gave that to you 5 years ago on my forum. Exercise alone, does not reduce stress, but exercise followed by a good night's rest is very effective at reducing stress. I mentioned late night exercise long ago. Another way is meditation in water. If you can illuminate the water with red light, even better.

The published science, both paleo and LCHF tout, shows both groups have some explainin' to do. **Their "holes" exist because they believe food, not physics, is the key to the puzzle.** Light has always been in the domain of physics. Understanding the physics of the modern human environment is the missing piece, because it AIN'T food, that causes this problem via ubiquitin. Diet and meal timing can both phase shift and entrain circadian rhythms, but they cannot repair a mismatch. They are powerful tools for your bio-hacking tool box but you wont reverse or optimize a disease. You'll improve and then stall.

What did ubiquination 3 clearly state about Leptin Resistance (LR)? LR is a synonym for up-regulated ubiquination rate. Low glucose levels and low amino acid levels in the blood also inhibit mTOR; this is why they both help metabolic cycles, provided you already have fixed your light problem in the circadian cycle (CC). The Leptin Rx is for those with a trashed CC for any reason; all diseases at their core, start with an altered environment and bad signaling. If you dont fix your light problem, even the leptin Rx will be a problem for you. It will be above paleo or low carb results but optimal will be a tough reach. Sunlight sets the SCN clock, and once the retina is hit with light, the gut expects food within in 30 minutes normally based upon the diurnal rythms of the incretin gut system. I covered this in CT 7. Moreover, if food is not eaten in this window, you just created another mismatch. Researchers found that breakfast skippers had poorer glycemic control throughout the day than those that

consumed a high-protein breakfast on a regular basis. Hyperlink. That is why evolution gave us a gastrocolic reflex. You don't need a ton of protein at dinner or breakfast when you're LS, just when you're LR. It also points out something important about food resources when we evolved; there must have been plentiful seafood in the East African Rift 2-6 million years, and the data says there was. Remko Kuipers told paleo this in Boston, but few even attended his talk on seafood in the East African rift!!

All this data tells us epigenetics changes minute to minute via ubiquination…….this is why living at altitudes in a city can harm you, regardless of what you eat. NASA has found the exact same results in astronauts. This is why millions have lost glucose control and have poor sleep and persistent sleep apnea. These trends are not going away, they are getting worse daily, because we are embracing technology at an astounding rate. Moreover, it should be clear, when you have 320 million people strapping a 'foodbag of bad frequecies' of tech gear to their lives, you can't mitigate away the laws of nature in a city where humans live close to another. Even in cities, the laws of gravity, the electromagnetic force, Archimedes principle, and their interaction with light still holds true regardless of our behaviors and beliefs. It's just ludicrous to live in this fashion, but millions of us do just that every minute of everyday now. Few realize its massive effect.

We need to live sleeping on the ground or in a watery tub, if we live in a city; if you're in a city make sure its not a skyscraper; in cities that never sleep, turn off the blue light as much as you can; you're in a hole because ubiquination never turns off and this simulates a world constantly in summer with a sun you cant use. Moreover, as your use of tecnology increases as your dose of illness will

manifest.!!!! This is why the women of paleo are falling apart. You can't mitigate universal laws with nootropics and bio-hacking gear to make yourself bullet proof either.

DIGUST BOMB: This is why I no longer bother with some groups. I try to educate them, but you can't force them to learn; and when I realize they rally don't understand these relationships, and this is not my opinion, but based upon physics universal laws, I'm done. Ironically, failure may finally become their salvation. I want them to waste money, on a lot bio hacking gear and paleo cookbooks now…….maybe this will bring them closer to an understanding when they are breaking and will continue to break, and why it has happened. Sometimes transformation happens when we are sick and tired of being sick and tired……..sometimes you've got to hit the bottom to change…….I see it everyday in medicine.

If health is also a function of the advice you follow, then next picture worries me greatly.

If you're an athlete at elevation, back way off protein. Altitude, alone, increases ubiquination rates to cause muscle loss, irrespective of how much you lift. Trainers, dietitians, and nutritionists flub this one bad, so they convince you to believe and think you need more protein o maintain the muscle. Great way to die earlier of heart disease. When you obey, and add protein you stimulate mTOR, and you die or kill yourself, with a muscled facade. That was the story buried in ubiquination 1.

Intermittent Fasting (IF) subtracts food for a time, and then

changes the timing it is delivered to the gut. This has a huge autophagy benefit in healthy folks who have proper yoking of ubiquination and circadian cycles. This can only occurs when some one is leptin sensitive because their circadian cycles are coupled properly to ubiquination. Artificial light is the most common cause of uncoupling these cycles. Most people blame leptin problems on food (itstheWoo), but in my opinion, modern leptin resistance is a phenomena of artificial light and this is why they don't understand the full picture. To get IF to stimulate autophagy, it requires a superoxide burst from cytochrome 1. This is most easily done, using dietary carbohydrates whose electrons enter the mitochondria at cytochrome 1. **For this reason, carbohydrates are not always bad, and they should be used in their proper growing season to maximize the respiratory burst of superoxide during spring and summer to get us the mitochondria we need in autumn and fall for fat and proteins.**

Superoxide is absent in T2D, neurodegeneration and in most cancers. Without it mitochondrial biogenesis is not going to happen. To properly stimulate autophagy to recycle bad redox shifted mitochondria you must pay attention to light. Redox shifted mitochondria ultimately are the epigenetic cause of cancer. Oncogenesis results when this proper coupling is absent between ubiquination and light cycles. Intermittent fasting is one of the better fertility medicines we have. Moreover, it is nature's "best natural chemotherapies" you can employ in your life, to avoid cancer because it pushes mitochondria close to the nucleus and cells become condensed and have a tight tensegrity. Blogs are coming about these relationships.

CANCER AND THE LOCATION OF MITOCHONDRIA TO NUCLEUS

This altered distances and movements of mitochondria to the nucleus is critical in developing diseases like cancer. Why?

The further the mitochondria moves from the nucleus the more pseudo-hypoxic the nucleus gets. The less O_2 the nucleus gets, the more it favors a Warburg metabolism to make ATP quickly. In ubiquination 4, we tackled this issue. **Glucose is the emergency break for circadian clock genes that sit right in front of our somatic genes. Ammonia build up is the result of increase ubiquination. Both are signals the cell's clock genes are not telling time well.**

Is there any other indications that we are looking at cancer incorrectly? Research projects usually evolve in a fortuitous manner, often guided by a convergence of novel observations, intuition, helpful colleagues and unique personal circumstances. Today in oncology those links are not being fast enough to save human lives. This unique relationship is precisely the constellation of observations that prompted two cardiologists to study the mitochondrial networks in lung cancer cells. It is unusual for cardiologist to study cancer, but they did because cardiologist are very interested in mitochondrial failure in heart disease. So what did they notice, that caught my eye in 2008.

The role of glucose oxidation in cancer has been largely ignored by oncology. Metabolic treatment of cancer should have been studied long ago because of the link to glucose metabolism in the 1920's. See this hyperlink. Why do I say this: it should have been inspired by the work of the German Nobel prize laureate Otto Heinrich Warburg (1883-1970). In the 1920s, Warburg hypothesized that cancer cells primarily rely on non-oxidative glycolysis instead of glucose oxidation to fuel cancer cell's energy demands. This metabolic signature of cancer cells was critical for the development and growth of all tumors.
As the cardiologist examined the metabolism of malignant lung cancer cells and non-malignant healthy epithelial cells, they had noticed an important difference in the physical appearance of the mitochondria in both cell lines. The mitochondria in

the vast majority of cancer cells appeared to be small and fragmented, while healthy epithelial cells predominantly contained elongated, filamentous-like mitochondria that formed large intact networks with the cell's cytoarchitecture. The cause and significance of this difference in the mitochondrial structure between lung cancer cells and healthy lung epithelial cells was unknown at this time and should have been a fertile ground for new discoveries in cancer and in electromechanical signaling as it related to size and shape changes. So far……..oncology treatment still focuses on genetic determinism, chemotherapy, and radiation therapy as mainstays. Very few are focusing on the real prize: Metabolic therapy for cancer treatment to fix electromechanical, electrochemical, or optico-photonic signaling. This story was laid out in ubiquitination 5.

If you think modern oncology is close to a cure for cancer, I would not agree at all. Why? In cite 11, an observation made by Warburg, toward the end of the manuscript, that tumors with high levels of glycolysis are also associated with high levels of ammonia production, and Warburg refers to this observation as an oddity that needed further research. It never got that needed research. In the 1920's the OB/GYN literature noticed reduction of tumor size in those vaccinated with viral particles. When ubiquination rate is elevate what did I say happens? Protein turns over. What does that produce as a by product? Nitrogen and ammonia. Any see why Warburg found what he did? Most link Warburg metobolism to a bad thing in relation to cancer. It is not. **It is proof of an uncoupled metabolism from light.**

In Warburg's case, it would take at least 80 years for oncology researchers to understand some of the key underlying molecular mechanisms that explain this observation, when multiple research groups demonstrated that cancer cells use the amino acid, glutamine, as a major mitochondrial substrate, when degraded releases ammonia. They were too busy looking at

DNA to realize the fruits of Warburg's observations.

Recent scientific findings are consistent with Warburg's observations that mitochondria undergo a cycle of fission and fusion, which is coordinated with the cycle of cell division (mitosis). Fission and fusion changes lead to alterations in size and shape and location of mitochondria in a cell with respect to the nucleus. These changes are coupled to complex protein movements in a cell coordinated by ubiquination and circadian signaling in every cell. Many experiments now completed in this area of mitochondrial research now suggest that targeting the mitotic fission of mitochondria may be a complementary approach to halt cancer cell proliferation. The use of viral particles in cancers appears to be more complex and my bet is it will be coupled to optical changes in the viral coat that alter protein folding. Are either of these places where we are spending money in research in oncology? Nope. See cite 11 and 12 for details.

After all it seems really bizarre that cancer would have a sweet tooth, wouldn' it? Why would all cancer's call for a Warburg metabolism that is associated with a higher ammonia level? Glucose and glutamine normally are metabolic signals that are an emergency to the circadian clock genes PER 1 and PER and Bmal1 in a normal cell. **To believe anything new in science you first must understand what is driving the observation.**

When these cycles are uncoupled, what becomes of this signal? Here is where the discerning eye comes in. Could a signal, that is an emergency brake on the genome, become just be a gun pointing at the target? Might it be incapable of firing on the target, just because it is no longer coupled? **Metabolism can' break a light cycle if they no longer are coupled**. *This is why we should expect a lot of glucose and ammonia in cancer states. Ubiquination drives the effect.*

Why might this insight bear fruit? The endpoint of glucose

and glutamine metabolism is the generation of superoxide as the main signaling molecule in mitochondria. When ubquination is disconnected from the cell cycle and metabolism no superoxide can be made to recycle mitochondrial to biogenesis. They are stuck in a catch 22 situation. They need superoxide generation to recouple the cycles.

It turns out that infections are another way to generate superoxide, H_2O_2, and hydroxyl free radicals. In mitochondria, they have SOD 1 and SOD 2 that are the rate limiting enzymes for both of these free radicals. When cycles are uncoupled, even T Cells become unable to do what they are designed to do bcause maybe SOD 1 and SOD 2 are up-regulated scavenging all the superoxide and H_2O_2 made? Is this why cancer growth can persist, semingly unaffected? Is the emergency brake cable disconnect from the break drum? If so, no wonder we see glucose and ammonia in cancer. HYPERLINK

Since we normally have no way to stop hydroxyl free radical production besides H_2 production by our microbiome, might a new infection in T cells stimulate hydroxyl free radical to give them a free radical burst and signal to kill cancer cells? Might this sustained signal provide another small spark to redox shifted mitochondria to stimulate biogenesis, to repair mitochondria? Redox shifted mitochondria also can’t make superoxide or H_2O_2. Could bacterial or a viral infection help defeat cancer when cycles are disconnected and coupled? Yep.

When phagocytes in the immune system are exposed to a number of different stimuli, they undergo dramatic changes in the way they process oxygen. Oxygen uptake increases markedly, frequently more than 50-fold; the phagocytes begin to produce large quantities of superoxide and hydrogen peroxide; and they immediately begin to metabolize large amounts of glucose by way of the hexose monophosphate shunt. This series of changes has become known as the respiratory burst. It was first believed that the major function of this respiratory burst was

to generate powerful antibacterial agents by the partial reduction of oxygen. It is becoming apparent that the respiratory burst has much wider application, and its physiological function in many different biological areas is clear. My prediction is that viral vectors will be shown to stimulate the respiratory burst to help recouple T cells to eradicate cancer. Why do I have this insight? It is commonly assumed that all phagosomes have identical molecular composition. This assumption has remained largely unchallenged due to a paucity of methods to distinguish individual phagosomes. When light uncouples from metabolism and the cell cycle those relationship will cease to exist. I think biology will soon find then when ubiquination is uncoupled from cell cycle and the metabolic cycle, phagosomes also can do different things and respond to different signals. ***I believe we find small proteins in mitochondria that couple all these cycles together, have undergone size and shape changes to cause the uncoupling.*** **This idea is born in the Organizational and structural failure series.**

Cancer, in my opinion, is an epigenetic disease of clock genes…….until we get real answers, the treatment of all cancers is alternative, in my view.

I believe viral induced gene splicing might be a way around an uncoupled environment in some cancers. Might HIV be the cure for some cancers of the blood? HYPERLINK I also bet that the pathway will be linked to light and the action of cytochrome C in the mitochondia using photoactivation. It turns high fluence low-power laser irradiation (HF-LPLI) is a newly discovered stimulus through generating reactive oxygen species (ROS) to trigger cell apoptosis. Low level laser therapy might be the way viral coats change the polarization of light in mitochondria to reactivate their T cells to once again become functional. Mitochondrial fusion and fission products in cancer likely ae still capable of under going optical catalysis when the presence or viral proteins can polarize the

excessive light released in infected cells. **We should be searching for proteins involved in membrane dynamics common to DHA and viral photo activation.**

SUMMARY

Epidemiological studies have established a positive correlation between cancer and metabolic disorders, suggesting that aberrant cell metabolism is a common feature of nearly all tumors. To meet their demand of building block molecules, cancer cells switch to a heavily glucose-dependent metabolism. Cancers cell develop a sweet tooth for some reason. I believe uncoupling the circadian cycle from growth and metabolic cycles are what alters mitochondrial carrier proteins. Ten mitochondrial carriers have been purified from animal mitochondria, already. No one has a clue what they do. They are small proteins with a molecular mass ranging from 28 to 34 kDa on SDS-PAGE. So far, five of these proteins have been sequenced. Their polypeptide chain consists of three tandemly related sequences of about 100 amino acids. The repeats of the different proteins are related and probably fold into two transmembrane alpha-helices linked by an extra-membrane loop. To me, this reminds me of Stanley Prusiner's findings in prions I covered in OSF 3, 4, 5. The features of this family are also present in several proteins of unknown function characterized by DNA sequencing. For me, this is a big clue proper light signals are being chronically uncoupled from the key biologic cycles. The position of clock genes in front of every gene is a huge clue that altered light is the link, to the cure for cancer. Belle Gibson, are vegan paleo diva needs this information in a big way now. This is why I must persist and battle with LCHF and paleo communities. I believe they are fundamentally wrong.

As insulin triggers glucose uptake, most tumors are, or become insulin-dependent. However, the effects of insulin and of other similar growth factors are not only limited to metabolic control. This also favors tumor growth by stimulating

proliferation and survival. *This makes perfect sense when cycles are no longer joined by mitochondria carrier proteins. When cycles uncouple, so does your knowledge you learned in a textbook. What we learned was true no longer becomes true.*

So why have been a thorn in the side of LCHF and Paleo? Their ideas are missing large pieces of a bigger evolutionary story.

These carrier protein factors all affect PTEN gene which is a tumor suppressor gene. PTEN is a gene that responds to ubiquitin. Plasma membrane targeting of PTEN greatly enhances PTEN ubiquitination and that phosphorylation of PTEN in vitro, does not seem to affect subsequent ubiquitination. When clock genes are running faster than the SCN, or ubiquitin is up-regulated, a tumor can result because of the combo action on these uncoupled systems on the PI3K/AKT/mTOR pathway. PTEN is a protein tyrosine phosphatases. Most of them act to phosphorylate proteins to get action…….PTEN does the opposite. It de- phosphorylates proteins. Ubiquitination appears to represent a regulated mechanism of direct reversible control over the PTEN enzyme. PTEN is a key signaling event mediating these metabolic and proliferative responses is the activation of the phosphatidylinositol-3 kinases (PI3K) pathway in cancer. PI3K keeps the balance between metabolism and tumor growth, so my bet is, that mitochondrial carrier proteins are key enzymes coupling these pathways. Since they are small enzymes, they must use proton tunneling, to link growth and metabolism to circadian cycles. If tunneling become impossible because of redox shifted mitochondria decoupling dominates the cell.

When one eats too many carbs or allows too much blue light, tissues become dehydrated, When water is lost via Archimedes

principle we always should expect a loss of intracellular magnesium, because Mg^{2+} is hydrophilic. Water loss is water drives magnesium levels, not vice versa. When water is lost, NAD+ builds up in relation to NADH levels on a per unit basis.

Increasing the NAD^{+} in comparison to NADH changes most of the electromechanical and downstream redox signaling in protein kinase B pathways of cells. Why is that big deal? The AKT pathway is also known as protein kinase B (PKB). It is a serine/threonine-specific protein kinase that plays a key role in multiple cellular processes such as glucose metabolism, apoptosis, cell proliferation, transcription and cell migration. Akt1 is involved in cellular survival pathways, by inhibiting apoptotic processes. ASt1 drive glucose production to slow the clock genes in front of the somatc genes that are facing higher expression rates because of ubiquitin marking of proteins. Moreover, Akt1 is also able to induce protein synthesis pathways or degradation pathways like ubiquitin, and is therefore a key signaling protein in the cellular pathways that lead to skeletal muscle hypertrophy or loss, and general tissue growth control or loss. This is where normal growth and cancer is coupled. When clock genes are uncoupled from the somatic genes by a light mismatch cancer is likely. A coupled Akt1 system can block apoptosis, and thereby promote cell survival. A decoupled Akt1 system cannot, and cancer results. It is a critical uncoupling of the PI3K/AKT/mTOR pathways, from clock genes that leads to tumor genesis and re-growth of tumors.

The best educators are those who show you where to look, but don’t tell you what to see.

I feel and see something big here. What say you?

CITES

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