TENSEGRITY 1: JEREMY SPOKE AT CLASS TODAY

READERS SUMMARY:

1. In life can you overcome a hand of cards dealt to you that says you have a fatal genetic disease?

For those of you who listened to the March webinar you were able to meet Jeremy Thomley. He is one of my new friends. We have known each other for about 9 months. He is an amazing person who you can find out a lot more about here: Hyperlink to his website and blog. Make sure you read his blog too. His sculpting has to be seen to be believed. He has another problem you might find hard to believe. He has cystic fibrosis. **Cystic fibrosis** (**CF**), is an autosomal recessive genetic disorder that affects most critically the lungs, and also the pancreas, liver, and intestine. It is characterized by abnormal transport of chloride and sodium across an epithelium, leading to thick,

viscous secretions. CF is caused by a frameshift mutation in the gene for the protein cystic fibrosis transmembrane conductance regulator (CFTR). **The gene was identified in 1989 and is found at 7q31.2, the long arm (q) of chromosome 7 at position 31.2.**

An individual must inherit two defective cystic fibrosis genes, one from each parent, to have the disease. Each time two carriers of the disease conceive, there is a 25 percent chance of passing cystic fibrosis to their children.

Prevalence:

The incidence of CF varies across the globe. Although it is severely underdiagnosed in Asia, existing evidence indicates that the prevelance of CF is rare. In the European Union 1 in 2000-3000 new borns is found to be affected by CF . In the United States of America the incidence of CF is reported to be 1 in every 3500 births. Cystic Fibrosis is the most common, lethal genetic disease among caucasian people.

The prevalence data tells me……..CF is not a genetic disease but an epigenetic one that is subject to species variation. I told Jeremy this when I first met in Starbucks. He did seem surprised by this information.

1 in 25 caucasians are carriers of the mutant gene that causes Cystic Fibrosis. Why did the prevalence data spur my curiosity? I thought for such a lethal disease, that until recently killed its victims long before they could reproduce, should have died out long ago through natural selection. But the CFTR mutant gene's survival for over 52,000 years in humans implies some kind of a selective advantage of the mutant gene that causes Cystic Fibrosis.

In more recent years scientists identified the advantages of mutant CFTR carriers surviving cholera. The lethal strain of

Cholera, *Vibrio cholerae*, produces a toxin that binds to the cells of the small intestine opening all of the transmembrance regulating ducts pumping out considerable amounts of chloride ions and water – about five gallons a day. If the salt and water are not quickly replaced the infected person dies of dehydration. Sherif Gabriel, a cell physiologist of UNC Chapel Hill, experimented with mice that carried the CF mutation and cholera. Not surprisingly, the intestines of mice with cystic fibrosis infected with cholera secreted no fluid. This selective advantage to the many European outbreaks of cholera may explain the high frequency of the gene mutation in Caucasian people of European decent.

Gerald Pier of Harvard Medical School aggress that heterozygote advantage caused the high frequency of mutant CFTR genes in the Caucasian population but the advantage is for the resistance to typhoid fever. They found that *Salmonella typhi*, the causal agent for typhoid fever invades the gastrointestinal cells by attaching to the normal CFTR protein as the first step in eventual infection of the bloodstream, but blockage of these chloride channels also block entrance of the *Salmonella typhi* into the cells and *Salmonella typhi* cannot attach to the most common CFTR mutation. The widespread incidence of typhoid fever over much of European History would account for the high frequency of CFTR mutation in Caucasian people of European decent. On the other hand Michael Swift of New York Medical Center has proposed that CF heterozygotes are more resistant to asthma.

The reason the frequency of CFTR heterozygotes in the Caucasian Populations is so much higher at 1 in 25 than those of Hispanics (1/46), Blacks (1/60), and Asians (1/150) has to do with a comparative disadvantage that out ways advantages in the indigenous areas of these people. Physiologist Paul Quinton of the University of California at Riverside argues that the cystic fibrosis mutation may not have survived outside Europe because in hot climates it entailed an

additional disadvantage. He asserts that salty sweat associated with Cystic Fibrosis is more of a disadvantage in hot climates than protection against diarrhea. Experiments have shown that CF carriers have saltier sweat than people with two normal alleles. The Human body is made to conserve salt, which until recently was a precious commodity. Humans in hot climates that spent a lot of time running after prey could not afford to loose as much salt as a carrier would. Carriers in this environment would be more susceptible to dehydration.

It seems that one way or another, dehydration is the variant in the frequency of cystic fibrosis. In the cooler climate of Northern Europe the mutant CFTR gene protected people from many fatal diseases that cause diarrhea and dehydration (cholera, typhoid, E. coli), but in the warm climates of the Americas, Southern Europe, Africa and Asia this advantage was out weighed by the threat of heat related dehydration. It is interesting to see the advantages of diversity even in something as small as a gene.

This told me the CF is ultimately tied to water chemistry in humans. That is about where my knowledge on CF was about 10 months ago.

Jeremy's mom was told that when he was born he would be dead by age 6. I met her at one of Jeremy's art shows down here in the gulf south. She is a pretty incredible person in her own right. Her son, her personal sculpture, is even more incredible. Without her tenacity for fighting with my profession, I believe Jeremy would have succumbed to his disease already. She fought for him because she could not accept her son's fate and she sought a better answer for her son then we gave back then. Jeremy was the focus of the March 2014 webinar. It was the one webinar, I wanted to do right after we cleared the hurdles of what cysteine and water mean to the construction of a redox potential in human cells.

Many of you come my forums and do not like when I hound you on details of quantum wellness. I consistently tell you how the redox potential is critical to gaining your optimal health.

In March 2014, I introduced you to someone who can never have an optimal redox potential because he does not the have the ability to have what most of you have. Instead, he sees himself where he is now. He deals with his present moment because that is all he and his parents were promised by my profession.

Jeremy Thomley has a fatal disease. That is what they say……

I say, Jeremy has the proof that anyone can overcome a poor redox potential and still succeed. Jeremy is the optimal I seek in my life. In fact, I think Jeremy shows what one can do when they believe in themselves. Jeremy sees the world through his fingers and body. He believes he can breath through his skin. Everything he does in life revolves around touch. He climbs up high in the cold, He has developed a passion for acro yoga out of the blue, and he sculpts using massive metal objects. He happens to live on a Christmas Tree farm in rural Mississippi. He connects with the Earth more than anyone I know naturally.

He has no clue why he did any of these things initially or why he continues to do it. I think I do. We talk about this linkage in this webinar. This is probably one of the best webinars I will do for you because it shows you just what is possible when you believe you are a broken human. Jeremy has always been told he was and could never escape that fate: and it has never stopped him. He does more with less, than most do with their best. Jeremy takes the hand he was dealt and plays it.

He can do more than I can because he made his limitations stretch his canvas to open him to a new world. A world where

your disease, your illness, your failings, create strength. **He shows us it's not the load that breaks you down, it's the way you carry it that does.** He uses his sense of touch to overcome his CTFR defect. He can not handle iodine across his basements like you can no matter what he does. It does not break him, it makes him better.

He maximizes touch to overcome it. He uses something called tensegrity in his collagen arrays to hang on to his water better than any person I know. Most kids with CF are puny and growth retarded. They are small statue and their disease limits their ability to fully develop their bodies. Jeremy looks like Michelangelo's David with his clothes off. He knew instinctively as a young child how to overcome his issue. He climbed to be connected with Earth most of his life.

When one touches, you gain access to the Earth's current. That current electrifies collagen. Collagen touches every single molecule of water in our body. Water is the most abundant molecule in each of us. Jeremy stumbled into his Rx by climbing and collecting electrons and photons. Jeremy found how to out work his fate. He uses Nature's laws to outwit my profession. Every time her visits the doctor they remind him of his oncoming fate. He accepts no excuses. He only seeks answers. He is someone who has my ultimate respect and admiration. I am pleased to call him my friend.

With touch, the collagen architecture in our body is deformed normally to allow us to explore and develop a 3 D representation of our environment. When collagen is deformed it releases an electric signal. We call this piezoelectric ability. The pressure, the change in electric and magnetic fields are propagated in collagen to every single crevice of our body. This information is then transferred to all parts of our body including our brain, via water in CSF. On the surface of our brain lies our neocortex. Time after time data has shown no matter how broken our brain is, (think Alzheimer's Disease or Parkinson's Disease) exercise and

movement increase the function of our brain. It increases our performance.

THE CLIMBERS PERSPECTIVE OF TOUCH

After reading that hyperlink you just passed, do you think he overcomes his genetic defect with awesome epigenetic direction? I think you know what I think about that question. But my curiosity told me I needed to figure out the mechanism. The quantum mechanism.

Touch is one way we can overcome a poor redox potential. Recovering your redox potential is not an environmental story, or a supplement only, or diet only story. He teaches me every time we gather at my place or at his Christmas tree farm, just what constitutes health. He has accomplished more than most people will ever accomplish, who have a normal genome and are illness free.

The CFTR protein spans the cell membrane and acts as a channel connecting the inner part of the cell (cytoplasm) to the surrounding fluid. This channel is primarily responsible for controlling the movement of ions and halogens from inside to outside of the cell; however, in the sweat ducts it facilitates the movement of chloride from the sweat into the cytoplasm. When the CFTR protein does not work, chloride and thiocyanate are trapped inside the cells in the airway and outside in the skin. Most of you following this blog may realize how Jeremy genome hampers him with respect to water chemistry and halogen chemistry. If you saw the video of Jeremy in the webinar, I have a question for you. Is it an impediment? Or can we all learn something from him?

When someone tells Jeremy “no,” it doesn’t mean he can’t do it, it simply means he can’t do it with them.
Good results are difficult when indifference predominates. You must seek your answer. When we are seeking our answer, we cannot be indifferent about the questions we ask, because we

want the answer that brings transformation. So, the first questions that lead to the right answers we must ask of ourselves: Am I making a positive deposit into my future? What will I reap from this decision? What is motivating me to take this action? When we ask ourselves the right questions we will lead ourselves to the right answers. The problem is not to find the answer, it's to face the answer. Begin to live with the answer than die with the question. I think I know how Jeremy found his answer.

JEREMY's Rx for CF

Jeremy and I have one big thing in common. We do not give up easy.

I do not look at CF the way everyone else does, and neither does he. I believe CF is an epigenetic disease that has been reserved by our genome to help protect us from infectious diseases that humans faced in their remote past.

CFTR is closely aligned with the movement of ions and water across membranes. Water is a big issue for Jeremy.

Orthogonal arrays or assemblies of intramembranous particles (OAPs) are structures in the cell membranes of diverse cells which were initially discovered by means of the freeze-fracturing technique. This technique, developed in the 1960s, was important for the acceptance of the fluid mosaic model of the biological membrane. It turns out anywhere there is a water channel in a membrane there must be an OAP associated with it to stabilize it to the collagen cytoskeleton of a cell. Histamine treatment or release from cells induces molecular rearrangements of *orthogonal arrays of particles* (*OAPs*) in human AQP4-expressing gastric cells. So we know there is a precedent for this quantum molecular action.

The OAP's are the key to proper assembly of the magnetic moments in cell membranes and are the core problem in cystic

fibrosis. *Very soon you are all going to learn how important magnetic moments are in generating a small voltage on a cell membrane.* At its core this disease is due to a small change in the molecular structure of OAP's that cause defective construction of the water channels in cell membranes in the body. This leads to severe problems at the cell membrane surface that many CF patients suffered with. **Water channels in humans are called aquaporins.**

Jeremy has figured our how to offset this problem of quantum construction of his aquaporins in his cell membranes. He controls the tensegrity collagen system supporting his aquaporins to offset his genetic defect. This maneuver has stabilized the anchoring proteins in his defective aquaporins so they can be offset to a degree. The more he connects with Earth and avoids non native EMF the stronger his tensegrity cytoarchitecture is in his cell. This stabilizes the aquaporin defects from the CFTR gene. He has figured out how to work around his OAP's to learn to actually breath through his skin. He uses his lungs quite differently than we do because he has too. He solved this CFTR defect in quantum fashion. He has no idea how he did it.

He does know however that he has a strange calling to climbing on rocks, with large crystals in them that were formed around water. He has climbed on every bit of Sandstone on this planet. He has no idea why. It is almost like his mind is ingenious at finding possibilities to cure him. It is akin to a savant syndrome, both literally and figuratively. He also is drawn to create massive large sculptures made up of old equipment.

I noticed most of this sculpting equipment is made up of transition metals. Transition metals draw excessive non native EMF to it because of the physical chemistry of the D shell electrons in these metals in their interactions with the electromagnetic force. This is fundamental to why a star explodes when its core becomes iron from hydrogen. All dying

stars carry this calling card of death. The EMF it releases in the microwave range has the power and energy to blow up the core of the star in a supernova.

It appears that excessive environmental non native EMF is bad for all kids with cystic fibrosis because it loosens the collagen cytoarchitecture that anchors to the aquaporins in the cell membrane. This alters the way water and the ions react across this membrane. This is why most CF kids have salty sweat and suffer from dehydration.

MAGNETIC MOMENT

Recently, an MIT team built a new type of device that controls magnetism in much the same way that a transistor controls a flow of electricity in any simple electronic gadget we see today in a Radioshack. The key ingredient of their innovation, is a layer of ion-rich material in which atoms have been stripped of electrons, leaving them with an "emergent electric charge".

When we strip electrons from any surface this is a phase transition which the Second Law of Thermodynamics says a transformation of energy must take place. When energy is transformed it leads to a new form of matter that often has new properties that neither of the parent forms of matter contained themselves at the outset of the phase transition.

In a human cell, the same process occurs in biochemistry. When the hydration shell around proteins is present and not absent due to dehydration the water charge separates naturally without any input of energy. The reason is simple. The water is adjacent to proteins which is hydrophilic and has a negative charge. This causes the water to separate to hydroxl groups (-OH) with a negative charge and hydronium ions (H3O+) with a positive charge. Between these two layers lies an exclusion of water.

It is an interface that has a different refractive index for light of the other two layers of water that was separated into its charges. In this way way, water naturally separates into a three layered prism, of "emergent forms of water" that all have their own emergent properties and react differently with photons from sunlight. In fact, each layer of water has emergent interactive properties with the electromagnetic spectrum. Once this process of self assembly begins in the exclusion zone of water, the protons in the hydronium ions begin to flow naturally so long as photons are engaging the system. No exogenous energy or ATP is needed to do this.

When these protons flow adjacent to the inner mitochondrial membrane it helps improve the charge or voltage on this membrane to improve the redox potential in the cell. The cell uses this small electric charge to control the water inside and outside the cell. This small voltage can control the magnetic moments of water just like the MIT researchers found in their new technology work.

When protons flow next to the mitochondrial membrane the body begins to makes ATP by stripping electrons from proteins. Notice that no ATP is used in any of this process. All the step up until this time just use the natural elements present in the cell to generate energy in self assembly. This is how a zero entropy quantum machine begins to organize at its most basic level.

You might be asking this question if you're a smart cookie:
If electrons are stripped from atoms to form an electric current, why doesn't the atomic/molecular structure of the material from which they are stripped also change?

Removing electrons from an atom is called ionization. **Even though an electron is stripped from atom, its mass is not**

changed since electrons have no mass. Electrons just have a negative charge, so when we lose electrons the chemistry and charge change, but the mass remains constant.

Since an electron has no mass but carries energy and information what does this infer? Consider Einstein's mass equivalence equation…… E=mc2

Remember from Einstein's equation, time is directly proportional to the mass of any object. I covered this in EMF 2. Derived from the equation, the smaller the object's mass, the slower time flows around that object. Since electrons add energy and information to any system and no mass what does this relationship due to time? Time slows down on a relative basis. Do you think I might be teaching you how to use this to your advantage for a disease reversal.

If you could slow time would you die faster or slower? How is Jeremy doing what he is?

And inversely Einstein's theorem says, the greater the mass of the object, the faster time would be perceived to occur. If time goes faster, do you live longer or not? Following the thought experiment forward, time would be slowest in space, where there is nothing but subatomic chaotic particles. This is why Einstein said that space travel should makes us younger. Remember how I told you I figured this all out using a Russian cosmonaut paradox in EMF 2?

These relationships point out directly why Jeremy has lived to 31 years old and not died. He does things that preserve his collagen cytoarchitecture to control the leakiness of his aquaporins in how the anchor to his basement membranes.

The same mechanism is going on in those with spectrum disorders too. **Temple Grandin found that squeeze shoots and hug boxes helped de-stress animals on the feedlot farm, slaughter houses, and in her.** When stress lowers, cortisol drops. Cortisol destroys collagen cross linking by removing electrons from copper in lysyl oxidase. When collagen loses its cross linking it loses its piezoelectric current and the cell gets looser and larger in size and volume. Einstein's energy mass equivalence theorem says that when this happens, life should be shorter and we die sooner.

The reason was simple. Being squeezed compresses and stresses the collagen tensegrity system in these kids to stabilize their cells. This helps optimal quantum function of water flows with in their body to offset their energy losses due to their respective defects. Temple Grandin senses these changes intuitively and then uses her insights to create better design in farms and for autism children in their brain cells. Her brain's SQUID has the ability to sense the "looseness of the tension" and compression in the system. The sense comes from the unzipping of collagen, and this increases the mass of the cell while increasing the volume.

When Grandin was a young child, she could not speak and had no ability for abstract thought, but she highly developed her sensory spacial senses and began to realize she could live her life through the sense of touch. Jeremy has discovered the same benefit for his cells at epithelial surfaces. Grandin's neocortex was underdeveloped in two areas and she used other areas in the neocortex to have super sensitive parts of the neocortex with extraordinary ability. We call this mode of action synkinesis when one healthy part of the nervous system takes over the function of a suboptimal region. Jeremy has developed synkinesis as well, but he uses it to breath through his skin. Sounds hard to fathom huh?

It is not. It is a thermodynamic problem and is directly linked to Einstein's mass equivalence equation. When something gets bigger it dies faster. It is a natural law in the universe.

Jeremy can not fully use his mitochondrial capacity because he can not exchange gases well in his lungs. This means using foods to create electrons to reduce oxygen in his mitochondria is not a great benefit to him as it would be to me and you. So his body sensed this thermodynamic problem. And what did it do to overcome it? He uses the magnetic moment built into his collagen water interface to increase energy transduction in cell membranes. He uses his mitochondria to maintain his interior redox potential and he tolerates a lower oxygen tension in his body chronically as a benefit. In other words, his body looked at the energy process and accepted he would always have a low oxygen tension. The way to over come that is to keep your cells small and with lower volumes. The leptin receptor is what senses all these thermodynamic effects, and it self assembled a probabilistic outcome for survival. These neurons were sprouted from his leptin receptor to his frontal lobes that drive human behavior. The more he did these things the better he got. This drove his passions by building his frontal lobe to reward him for behaviors that would strengthen his collagen tensegrity matrix. This is how neuroplasticity works. This is Hebbian learning.

They both have defective aquaporins function because of a failure of the quantum protein construction of their cell membranes. Therefore, they both need cytoarchitectural stability for different cell line in their bodies. The mechanism is the same because the laws of mass equivalence are universal everywhere in the universe.

Temple needs it in her neurons and glial cells and Jeremy needs it in his epithelial cells that line his organs. When the system has too much looseness or tension in the system,

their cell volumes increase and this changes the flows of water and ions into their cells. If these cells swell too much, the compensatory reaction or recoil of the water and ion flows does not occur as it should. As the cell swells mass equivalence is altered. A thermodynamics problem begins for them both. Mitochondria swell and the process of autophagy and apoptosis begins and death slowly begins. In Jeremy's case the slope is steeper than it is in Temple Grandin's disease. The reason should be simple to understand now. Temple's problem is in the water transport mechanism between her glial cells and neurons. Jeremy's are between the intracellular and extracellular space across his basement membranes.

Eating carbohydrates causes neurons to swell in the brain to cause extreme hyperpolarization. This is due to calcium efflux. This is excitotoxicity. This means their is an excessive amount of glutamate entering their neurons to cause massive local and focal swelling in parts of the brain of autistic kids. It turns out that the fusiform gyrus, cerebellum, and frontal lobes are most commonly affected because these are the last system formed in the developing infant brain.

Jeremy's defect in quantum construction has the same mechanism but just a different trigger. His was an epigenetic change due to poor epigenetic transgenerational inheritance. His mother likely had cell swelling her germ line and it made her mitotic spindle too loose and this cause abnormal separation of her chromosomes or it could have been caused in the proper reading of her magnetic moments coded for on her DNA. Remember we inherit only our mothers mitochondrial DNA. Either way the quantum mechanism can be understood and now tested. This is why I think cystic fibrosis has several phenotypes even today. I believe the same thing about autism transgenerational epigenetic heritage.

They have both lost the ability to control aquaporins and they

can not recollect the water by catching it with K+ ions in their neurons. This makes these kids worse in the respective organs involved.

Grandin and Jeremy are under connected with respect to water because of the defects in aquaporins and this allows for changes in how water flows in them.

So how does this all link to the quantum mechanism?

When water flows anywhere are altered, ion flows are also altered. When ions flows are altered charges are altered. When charges are altered how the organ or tissue that function is altered. When tissue function is altered, phenotype changes.

In Jeremy's case, when the CFTR protein does not work, chloride and thiocyanate are trapped inside the cells in the airway and outside in the skin. This results in a lack of hypothiocyanite (OSCN) production in epithelial cells. When this happens a bacteriocidal effect cannot be produced by immune defense system in CF kids. This is why they get so many respiratory infections. Hypothiocyanite occurs naturally in the antimicrobial immune system of the human respiratory tract in a redox reaction catalyzed by the enzyme lactoperoxidase. It has been researched extensively for its capabilities as an alternative antibiotic as it is harmless to human body cells while being cytotoxic to bacteria.

Because chloride is negatively charged, this creates a difference in the electrical potential inside and outside the cell causing cations to cross into the cell. Sodium is the most common cation in the extracellular space and the combination of sodium and chloride creates the salt, which is lost in high amounts in the sweat of individuals with CF.

For those of you who listened to me and read Ling and Pollack's work why would a CF kid lose salt thermodynamically?

You just smiled, didn't you.

Salt decreases the EZ of water.

BOOM.

THE QUANTUM MECHANISM OF CF

ΔF508-CFTR defect, which occurs in >90% of patients in the U.S. with CF. This specific defect creates a protein that does not fold normally and is degraded by the cell quickly. This process uses the ubiquination pathways and is a very energy costly. This means it is thermodynamically unfavorable to Jeremy's internal redox potential.

Other mutations in CF can result in proteins that are too short and are truncated because production and folding has ended prematurely. Other mutations produce proteins that do not use energy normally, therefore they do not allow chloride, iodide and thiocyanate to cross the membrane appropriately.

Therefore they are degraded at a faster rate by the ubiquination pathways than normal is normal. This leads to massive needs of more energy for protein reconstruction.

When the DNA code in these kids keeps making a bad copy of the CFTR defect charge is quickly lost everywhere CFTR is used to build a charge. When a charge is lost, cells and mitochondrial swell and this activates autophagy and apoptosis programs and stem cells are recruited by the excessive ROS signal at their dying mitochondria. Stem cells are used up and death soon occurs. This is precisely what the mass equivalence equation predicts.

Mutations may also lead to fewer copies of the CFTR protein being produced. This is why I think there is a transgenerational epigenetic defect in mothers with autoimmune diseases that germ lines are affected by a lack of energy. This is how leptin function ties to these disorders because

leptin controls oocyte selection. The leptin receptor functions to create optimal energy balance everywhere in the body.

CONSIDER THE QUANTUM MECHANISM IN THE BRAIN AS A COMPARISON:

When the brain is “under connected” in autism spectrum disorders, it seems to affect social skill development first, but preserves visual and spatial relations. These two areas then are hardwired by Hebbian learning and neuroplasticity for success because they are used maximally to overcome the lack of development the parts of her SQUID on her neocortex that had abnormal aquaporin function to begin with. The area of the AQA 4 defect will predict what type of autism spectrum defect will appear in the child’s phenotype. This is why there is a spectrum in autism. It has to do with where the aquaporin defect is present within the SQUID of the brain. The human neocortex has lots of territory it can affect to cause the phenotypic change.

The Savant Syndrome works on the same mechanism but uses a different initial trigger to set off the that specific savant syndrome. This quantum mechanism explains how Savant kills always develop and lead to “islands of extraordinary ability or disability.” Savant syndrome represents the extraordinary ability side of the equation, and seizures disorders represent the example of the disability of the quantum mechanism. I believe Jeremy is using the same strategy to overcome his thermodynamic problem. In the brain, I believe seizure disorders emerge instead of a savant syndrome because it is because the redox potential in this area of the brain was low to begin with and it caused a malformed protein in the OAP’s or in AQA 4 to lead to hyper-polarization of the neocortex. This hyper-polariztion due to unfettered water flows, changes ion flows laterally across the neocortex to cause a seizure to manifest. In savant syndrome, the water flows electrify and magnify more focused neural circuits on the cortex, and develops deep memories and amazing cognitive ability tied to

it. It just goes to show you the more energy you put into a neural circuit the sky is the limit for cognitive function. This is how a quantum computer would react to this thermodynamic situation because of the mass equivalence equation.

This is why just resecting portions of the neocortex is so successful in these patients. We do not need to resect larger swaths of brain in this operation. The quantum mechanism deactivates one part of the cortex and this provides mitochondrial energy burst to the surrounding cortex to hyper develop normal areas without the aquaporin defect. This leads to incredible development in this area of the neo cortex and changes the phenotype of the person. This mechanism is also operative in seizure disorders, as well , in my humble opinion. (Neil BB alert)

CYSTIC FIBROSIS QUANTUM MECHANISM

The energy flows in water channel defects in cell membranes leads to different problems of quantum self assembly of their proteins in the cell membranes. This is where the OAP's come in. **When a cell membrane can not self assemble properly it loses its ability to have the proper charge. When it loses its ability to carry the proper charge a new emergent property appears in these people as a result.** In the peripheral cell membranes, water aquaporin defects cause alterations of tensegrity in collagen. This is in stark contrast to the situation in the brain. The result is the phenotypic problem which results in Cystic Fibrosis.

The lack of proper water flows, directly alters ions flows, which then alter the charges on the proteins being put into the cell membranes. It is the cell membranes that are designed to interface with the native environment on Earth. They allow cells to maintain proper cell size and volumes at all tmes to allow for a zero ordered state. This reduces entropy and minimizes energy needs from the mitochondria to

stabilize cell volumes. In this way, energy balance is maintained between the cell membrane and mitochondria. The key defect in CF is the improper ion flows across basement membranes can not be normally maintained. This alters the cells ability to construct a cell membrane to hold a charge to accurately maintain its size to obtain the proper signals from the environment.

When Jeremy can not maintain his battery charge on his cell membrane, he has to tap his mitochondrial energy source to generate more charge on the inner mitochondrial membrane to offset the loss at his cell membranes to maintain his normal cell volumes and size. Because he climbs, uses acro yoga, and is constantly in the sun, all these actions act to improve the optics of his tensegrity system, and he seeks to be around big metal sculptures that he creates which act to draw the non native higher energy EMF away from him toward the metal. He is unconsciously unloading the work his mitochondria need to do to offset the cell membrane charge. This is a great example of an ultimate quantum computation that I can give you, to show you how his brain has learned to harness the information and energy in all those environmental electrons and protons to overcome his genetic defect. In this way, he maintains his cell volumes. In the central aquaporin mechanisms found in the brain, Temple Grandin's autism is the phenotypic result. Just as death comes when things swell and expand in a cell, the same thing happens in our universe. It too is expanding as we speak. The rules of physics scale to all levels.

In Jeremy's case, he taught me something new. He did not do well on the Epi-paleo template. He and I both realized he needed a higher carbohydrate content. Then I figured out why. Jeremy needs lots of fast recycling ATP pathways to maintain the tension in his cells cytoarchitecture because he can not maintain his charge on his basement membranes well without the CFTR gene. This really stresses his methylation

pathways, but Jeremy has no other medical issues besides his CF. This tells me that his intracellular redox potential is quite good. **CF patients normally have horrendous intracellular redox potentials because they do not do what Jeremy did from a young age.** Most of them treated by evidence based medicine which says you won't live long and you won't thrive while you're dying faster. Many CF patients often develop metabolic or respiratory acidosis issues as they get ill.

KEY POINT FOR ME: I thought how dumb I was to not consider this possibility sooner. Then it dawned on me why Jeremy walked into my life out of no where. I had lessons to learn. This was the universe whispering in my ear. I might have missed the lesson if I did not have a quiet mind around Jeremy. Around him I want to hear his perspective because intuitively I knew he was a different kind of mammal.

Water chemistry is drastically altered in CF due to the CFTR dysfunction. Most people in medicine will usually believe it is the resultant extracellular dehydration from the poor anchoring of the aquaporins that contributes to the thick mucous lining these membranes of course. Many doctors will assume the worse in these kids because of what they have been taught how things usually happen. Based upon what they were taught, they would assume that the kids all had a poor redox switch in them and this would lead to an "inability" to form a large exclusion zone of water adjacent to collagen to generate that voltage need to stabilize the cell membrane and limit the cell volumes to maintain good redox potential. Normally, when protons are pumped out of mitochondria, they will tend to accumulate their positive charge within the cell. This would lower the pH and destroy the EZ of water and drop the interior redox potential because water is not available to neutralize and store protons as hydronium ions. Clinicians assume most CF kids intracellular water ratios are way off and they are dehydrated. This is what the text books

says on CF. It follows they they would typically expect this set of circumstance to lead to metabolic/respiratory acidosis and a lot of inflammation. Remember Jeremy's mother was told this exact story when he was a boy and my profession said he would be dead by now. Instead, he looks like a sculpture in the Louvre.

So what defines Jeremy and excludes him from the other kids with CF? His collagen and water network is optimized. And here is the most important relationship related to Jeremy's thermodynamic problem, and his lifelong success to date. Ironically, it is intimately related to the mass equivalence equation of Einstein.

A CF patient defect causes their cells to swell and get larger for two reasons. They lose their charges on their membranes because of the ion flow discrepancy they all have. But the second, and most important issue, is them developing their intracellular collagen tensegrity scaffold. This can only be developed when collagen is electrified with a small voltage. This requires a great intracellular redox potential to accomplish.

How would Jeremy combat this? Well, through his life long physical training, he has built an extraordinary network of collagen to apparently maximize his ability to semiconduct, despite his constant battle with dehydration and low redox potential. He then systematically collects the maximal possible number of electrons from the earth/rocks he climbs, and energizes them constantly with photons from the sun. He keeps this "massless" energy in the form of the photoelectric effect, flowing into him for little internal costs. This further organizes his collagen matrix by electrifying it.

Stop for a moment and think of a tree:

Water in rain, is energized by the sun's photons and

electrons. This energy is transferred to the earth by rain and rainwater allows all plants and animals to survive on this planet. This is how trees, flowers, and grass live and grow. They do not need to eat food to make energy, so they have no need for fat stores as mentioned earlier. Animals, however do not live this way. Animals evolved fat cells for this reason alone.

Being in contact with rocks all the time is foreseeably more akin to what a plant would do, and would decrease one's need for holding on to body fat.

Jeremy tapped this, because he has very little fat.

He prefers to live in mild hypoxia chronically, controlled partially by yoga and breathing at sea level, while partially by seeking out lower O2-concentration of air on the mountaintops he climbs. He does this to limit his mitochondria from producing too many protons, resulting in large amounts of ROS that would destroy his redox potential inside his cell. He has to balance this out thermodynamically and he does by his chosen actions.

He prefers carbs because fatty acid oxidation requires a lot of oxygen in breaking fats down, and his thermodynamic problem is not long on O2. If he did this, it would also produce more protons than he could handle—again he would end up with metabolic acidosis otherwise, like other CF patients do. Hypoxic high-altitude air also allows him to ventilate more without necessarily increasing oxygenation which also helps to dissipate excess protons as needed. He gets rid of the excess acid by exhaling CO2.

So his life requires an extraordinary metabolic precision to walk the balance beam , of just enough oxygen and ATP production in mitochondria to unfold his proteins that work with his collagen in dehydration to support his semiconductors

to optimize his own N=1. Ironically Jeremy has a tightrope in his studio.

He has somehow learned to synesthetically “modulate his doses” of all these parameters by sensing his internal environment in some extraordinary way. The extraordinary way is his exquisite sensitivity of his leptin receptor. That receptor is our photoelectric account in our brain.

It counts electrons and protons for Jeremy, and the more he has gotten from his behaviors the better his intuition to do things differently has become. He is so leptin sensitive that he is literally able to somehow “count his electrons”, although he feels it in a way he can’t really fully explain. He is unconsciously aware of what he must do and his frontal lobes drive him to do those things. This is the definition of a system in coherence. This is a quantum mechanism, and not a metaphysical one.

What he “feels” out in nature, on the rocks apparently includes an accurate subconscious representation of his internal “energy status” which he is apparently able to, not only accurately sense, but also he has learned to modulate it by instantaneously altering his breathing pace and his touch pressure on the rocks to always maintain maximal energy efficiency. That’s what he means when he says he “breathes through touch.”

When you have a genetic defect causing an alteration of a protein in a cell membrane the Optimal Rx needs to be adjusted to solve this new thermodynamic problem. It is not just a mitochondrial problem like most other diseases. Jeremy’s defect is not in his mitochondria. It is in his basement cell membrane. This is what makes him different than most of the people in our community. It turns out avoiding carbs out of season has some exceptions. Jeremy is one of those exceptions.

WHY?

Carbohydrates provide sulfur amino acids that are loaded with electrons in thiol groups are used to create voltage in membranes. When the sulphur moieties are bound to the cholesterol proteins in cell membranes this allows for excessive electron flow in his cell membranes to upgrade the charge on them. This helps stabilize the local collagen network to the aquaporin channels weakened by the CFTR defect. Jeremy's mitochondria are super efficient but he uses them far less than we do by design. If you can not breath well, what good is mitochondria? Remember mitochondria targets are moving electrons from food to reduce oxygen. Jeremy had to innovate another way to accomplish the same task. In this way, his disease is a thermodynamic energy problem, and not a biologic puzzle. That's probably why his trial of restricting carbs shocked his system and is unnecessary for him. It's also why he hates hiking. Hiking requires good mitochondria. His system is optimized for anaerobic metabolism, which is carbohydrate based for the most part, when your intracellular redox potentials can be maintained.

It appears clinicians have to pay close attention to these quantum details on cell membranes even when it is defective. Chronic fatigue and fibromyalgia patients have both defects, to some degree making them very difficult to manage. Their tight rope is actually more narrow than Jeremy's. They just do not carry the risk of high stem cell depletion rates as he does. This is why CF is fatal, and why fibromyalgia just feels like it. The carbohydrates one has to utilize must be loaded with proteins that have sulfur containing amino acids in them. This should make some sense now when you consider what I wrote in Energy and Epigenetics 12. Cysteine is a big deal. It also helps upgrade his glutathione levels, to further strengthen his interior redox potential.

In physics, energy is power. I think a power to do something is of significant value in biology now. Whether the result is a good thing or a bad thing depends on how the power is used, but the power, itself, is a value. In biology power is the redox potential. It directs what powers you can manifest within your proteins, and as such what kind of life you'll live.

Today, genetic and molecular biologists are removing the most critical piece of the quantum puzzle because the prevailing belief is based upon genetic determinism. It is no wonder we remain in the dark ages of cell biology. This is why most of new emergent diseases have no cures today.

You begin to see why life organizes around a cell that is loaded with liquid crystalline semiconductors at its core. Semiconductors can hold and carefully move electrons and protons under the direction of the electromagnetic force. They are partially constructed of water which is the **best way to break symmetry in a cell.** This is thermodynamic heaven for a cell trying to dance around the statistical nature of the Second Law of thermodynamics.

Matter, like the proteins you and I are made of, all have a carbon back bone. Carbon does not have a natural high affinity for water. So what did life do to fix that problem? She put carbon in a protein molecular array, and gave it the ability to have charges that would modulate so it would sometime love or hate water. What determined the love or divorce is the redox state around the protein in question. So this physical alteration of atomic carbon could be thought to be 'evolved' to react with water; therefore it could be used by Mother Nature's to her advantage. Moreover, when you

consider what power this gives a biologic system you can see why she did it. Confining water, a symmetry breaking molecule in a complex thermodynamic problem directly impacts Einstein's mass equivalence relationship because it is directly tied to energy distribution on Earth. Remember E=mc2?

Let me explain why: ***When water is confined to tight spaces, like you would see inside a cell, it restricts the distribution of energies inherent in the water molecules molecular structure. This is important, because by allowing for this naturally, the water molecules end up with a lower average energy than if they were in regular bulk water from your swimming pool. This implies, just restricting water to a "tight room", it becomes energetically favorable for the water to enter small collagen fibrils.***

Think of this analogy to hammer home this point home; in a crowded subway, people's movements are restricted compared to what they are on the streets above, and hence the range of their energy distribution is narrowed towards the lower end of the energy scale. Restricting movement of charge particles in a cell gives you infinite control over the protons and the electrons. Both of these are charge particles. The electromagnetic force only deals with charged particles.

It turns out the collagen molecules in us become self organized into a triple helix when it is surrounded by water that carries direct current in it. This water is all around collagen in cells everywhere in our bodies. However, it then does something unusual, but natural according to the physics of water. Water molecules separate from one another into their charged state in a very ordered way. Water becomes a layer of hydroxyl ions and protons when it is next to a hydrophilic

substance. Collagen is hydrophilic. The electrons adjacent to water electrify collagen and the result is a self assembled triple helix. Nothing else is required. No exogenous energy is needed. It is built by quantum molecular design. This action limits the cell swelling and increases in cell volumes one would naturally expect in a CF kid. **The act of limiting his cells ability to expand is saving Jeremy's life. His very tense collagen network is what is helping him breathe. This is why him looking like a sculpture himself, is germane to his success.**

All life's is organized according to the statistical nature of the Second Law and as such it deals directly with the mass equivalence relationships of energy. These relationships are organized by life around the photoelectric effect, water chemistry, and native magnetic field and not GENES.

Jeremy has been taught to believe his genes will doom him. Quantum mechanics has other ideas. Therfore, so do I. Quantum mechanic particles have been entering Jeremy's body for 31 years providing him, with both energy and information from the environment so that he could find the solution for his genetic disease.

Jeremy's entire life's behaviors are all organized around building this collagen array to increase the order in his cells so he could breath through his skin. Remember, you and I breathe to lower our redox potential inside our cells. Jeremy can not do this. So he found another way around it. This is the essence of his unique thermodynamic problem. To build a strong collagen muscle skeletal array, called a tensegrity system, requires massive amounts of sulphur containing proteins. Sulphur comes in the foods loaded with cysteine and methionine. **Fundamentally, Jeremy taught me something deep here. Some people need these type of carbohydrates with those amino acids to an excess to maintain cell volumes.** Those that have water based diseases certainly do. Most do not. It is now my job to figure out who is in

each group, and then bio-hack what we should consider doing for them. When you do this, you are directly controlling the energy mass equivalence in a cell. This fundamentally is a second law of thermodynamics problem that Jeremy helped me stumble into. This is why our relationship is strong. **I believe it is based upon a quantum attraction of his unconscious actions and my conscious connections I have made in my own brain.** We seem to feed and connect to each other in a rather unusual fashion as I laid out in my March 2014 webinar. I figured all this out in a few hours after our meeting to film the March 2014 webinar. It took me time to put it into words.

I realized after he left, that his actions and behaviors he enjoys, all act to limit the amount of swelling that can happen in his cells and tissues so his mitochondria do not have to over work to make massive amounts of ROS that will destroy his mitochondrial DNA to cause an oxidative shift in cytochrome one. **In other words, the seemingly impossible thought of breathing through his skin might be possible by changing the thermodynamic variables in his life. This is how we solve diseases thermodynamically. A physicist and engineer solve problems this way and physicians and biologist do not think way.** We look at all the variables and then we see the goal is to increase energy and order. All it takes is reversing Einstein's equation and reading it right to left like an engineer would. More irony? Jeremy is a sculpting engineer!

Jeremy mentioned to me that he felt that through touch he could somehow breath through his skin. I think his intuition is spot on, and I just gave you the mechanism based upon the laws of quantum physics. I am proud to say I am Jeremy's friend and I am prouder to say I think I know how to keep him alive a lot longer than he even thinks. On my birthday this year, I told him that and I could see my confidence made him both uneasy and excited. He made for me, a beautiful glass

blown lamp with a copper wire around it. It was blue yellow and green palates. e blew the glass with his own breath so it would symbolize his lungs and the copper his ribs. We actually lit it up, and I opened a nice bottle of wine to celebrate. He drank but I could not because I was on call. It was the most beautiful gift I have ever gotten.

Today's blog is my thank you note to him. We have a gravity toward one another and I know why now……..I have got to help him to continue to help himself, so he can keep doing the right things he does, so he can change the world of everyone afflicted with cystic fibrosis.

My job is that of a health educator. Developing others is where we compound successes, and this multiplies the good effects that then can be expanded to other people. You must first equip yourself with knowledge and data to get wisdom, both in life and in this quantum mechanism, to let others visualize how to to tap their potential. I now fully understand why I had to get well ten years ago. I had to show Jeremy why he has remained relatively well, so he can change the fate of thousands of other kids with cystic fibrosis. I could never do what Jeremy is capable of, for this disease. I am a conduit, connector, and a maven to find out how he did what he did, and explain it. He is the creator of a solution for a shitty disease. His goal is now to change many lives.

When this quantum mechanism breaks badly in CF kids, due to a poor redox potential, all kids with CF die faster due to the mechanisms built into Einstein's mass equivalence. It also means, if we understand the mass equivalence equation, and its tie to telomere lengths these kids can live way longer than they all think. Jeremy needs to teach the kids precisely what to do now. He needs to reproduce his life's decisions in them and tell them exactly why. If you every meet him you will know why I am drawn to him. He is a great teacher, and if you are a great listener, you will gain some deep wisdom. Our first visit in a coffee shop, I listened carefully to

him. I told him to give me some time, and I would put it all together, based upon my Quilt document. Today you are reading that synthesis of thought.

When a cell's mass is higher it is less energy efficient. When a cell gets larger it activates autophagy and apoptosis programs and cell death comes faster and it depletes stems cells. When the stems cells are depleted death comes quicker than it could. This gives time its direction in physics. The best news……physics rules on time are reversible.

Jeremy's fate is far more ominous for medicine's current belief's because the tissues affected in him, do not have a lot of mitochondria to maintain his cell volumes or his redox state. To solve the thermodynamic pressures of CF, requires that one build your collagen network, while constantly working on maintaining your internal redox potential. He uses climbing on sandstone, acro yoga, touch, and creating large metal sculptures to maintain his cellular stability, to offset his aquaporin defect so he can actually breath through his skin.

When you know better…….you do better. Period.

CITES:

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