TIME #4: HOW CAN MAN HELP OUR EYE CLOCK IN A TECH WORLD?

BLOG TAKE HOME 1: WHEN WE COVER OUR PUPIL WILL ALTER THE LIGHT IT SENSES????

WILL THIS SPEED UP TIME SO THAT WE CAN GET SICK AND DIE EARLIER?

BLOG TAKE HOME 2: Hopes are like Purple light. Fears are like blue light. Now stop and ponder that and then ruminate on this: Hopes are always accompanied by fears, and, in scientific research, the fears are liable to become dominant in a world who thinks poorly and is unfocused.

Where have we heard this about UV light and poorly designed research? Mitosis requires a low-level ELF-UV release from cells at the correct time in the cell cycle. So what happens when UV light is absent? Your eye gets ill and you get refraction errors that cause you to age faster. Energy loss = Less work is done = means an altered photoelectric effect at the retinal surfaces with light and electrons. It is my entire ubiquitination series in a nutshell.

In 1964, John Ott along with Dr. Irving Leopold studied the effects of light on rabbit retinal pigment epithelial cells. They documented that that retinal pigment epithelial would not divide unless they were exposed to low levels of ultraviolet light. Roeland van Wijk research has shown that every cell on Earth has to release ELF-UV light from its surface to stimulate mitosis. What this implies is that UV light is necessary for our health because the RPE in the human retina controls our eye clock! The eye clock is what controls our circadian rhythms in our cells and they all link coherently using light water and magnetism to control growth and metabolism. The effect is massive in our lifespan. The time

you get that information out too now to those you love.

The hard scientific evidence is not in the world ever, it only exists in the world's mind as a core belief of fact, when in reality it's just an opinion of a set of facts. Scientific opinions may have changed slowly with time, but the facts they still believe to be correct in biochemistry, subtracted from biophysics, still persists. Sadly our assumptions are our windows to the world; put Windex on them every once in a while, or the light of nature won't come in and illuminate your mind. The essence of the construction of a "free-range mind" lies not in what it thinks, but in how it thinks. It avoids convention and group think to destroy its own conformational biases. Explore your world to expand your arguments!

WHY IS COVERING THE PUPIL AREA A REAL PROBLEM FOR HEALTH?

The biggest part of optical science most optic shops are missing is that the pupil of the eye alone is the ideal black box radiator. In fact, it is the only ideal black box radiator that humans have. This means covering it with anything makes the pupil become an imperfect black box radiator. That is problem number one because light cannot flow in both directions ACCURATELY. If light cannot flow properly it cannot be absorbed by cells to allow for proper control of growth and metabolism via the central retinal pathways.

Going through a hole, like a pupil creates a "kind of friction" for light. That is a metaphor for constriction of the rays of light and for damage related to that reduction of stimulus to the retina. That friction is necessary for life's functions. Friction is necessary to create a stress stimulus for forwarding movement in health. Friction is created by pseudohypoxia too, with respect to light. *Friction also can stimulate the cranial nerves (CN III, IV, V, VI, VII, X) in our orbit where the eye sits to have an effect.* ***Friction alters surface tension specifically.***

Sunlight pointing to the pupil is consumed by its darkness normally. Thoughts created by that light only has relevance when there are opposing frequencies to create the ideas in our minds. Consuming certain frequencies, keys the opening more doors and more possibilities to create a better life. We deconstruct light in this specific way to create something quite new and unique we call life. When you place a contact upon a hole you change the friction, the tension, and your black box radiator is now IMPERFECT FOR LIFE and creation and **you get an alternate reality because the proper light stimulus in the eye is the stimulus that changes brain chemistry. Some of you might be shocked to learn when you change light stimulus to the eye you change the level of ROS signaling in mitochondria and the amount of ELF-UV light release from a cell.** If you do not believe this you can review the results of these studies on page 94 of "Light Shaping Life" by Dr. Roeland van Wijk. That reality is usually a life with more neolithic disease and a shorter lifespan. This is why the incidence of myopia, glaucoma, cataracts, and age-related macular thinning (AMD) and degeneration is something to pay attention too.

AMD or retinal thinning is an epigenetic phenomenon that incidence and prevalence are exploding. Its incidence and prevalence parallel cancer statistics in the 20^{th} and 21^{st} centuries. It was once controversial viewpoint. Now it is showing up in journals constantly. AMD is a disease where energy is being lost chronically over time from a cell, back to the environment. AMD is a disease state where a low redox state is a rule, not the exception. It is a state where the delta psi in retinal mitochondria are off because there is a lack of electrons (Little DHA/O_2), too little UV light for proper signaling, and low oxygen tensions around mitochondria. A low redox potential = a low delta psi = poor UV assimilation by our surfaces. It is a state where water chemistry is very altered. Water is lacking inside and around cells, and cells

are dehydrated. The water does not form a large exclusion zone around proteins in our eye clock mechanism. Proteins are being replaced far too quickly because they cannot store the UV light as fluorophores (melanin and carotenoids). The water that is left behind has very little oxygen tension in it. It has altered levels of protons and/or electrons in the cell water too. Too few electrons (DHA) or too many of the wrong protons means that light cannot interact with them photoelectrically. ***This metabolic situation eventually leads to karyotype contraction***.

This means the number, size, and shape of chromosomes becomes altered. Tissues can shrink in this situation and become fibrotic and atrophic. If the situation is chronic, then it can become epi-oncogenic. *Today ocular melanoma is also explosive in its incidence and prevalence.* No one seems to know why. In these cases, the exclusion zone of water is smaller than it should be around our genes in our nucleus and the mitochondria are further from the nucleus than they should be. This scenario leads to an increase in epigenetic activation in the retina; and this state has an altered ability to allow protons to flow through ATP synthetase Fo in mitochondria. This creates energy inefficiency. This does not allow water to bind to proteins and cell membranes properly and it alters their ability to sense the electric and magnetic fields in their local environment. Sunlight and the native local magnetic field is capable of ionizing water in the entire universe, including inside your cells. This very basic fact, yet it is not yet a biologic law. However, it is a natural physical law found everywhere we look. Eye biologists have not changed their gaze from mutated genes just yet. I have a sense they will when they fully appreciate how the “eye clock gears” work.

CONTACTS OR GLASSES?

There are two primary issues, oxygen transmission and UV transmission that we need to concern ourselves with. The

contact industry has always worked towards increasing O_2 transmission by mainly by adding silicone to the lens. The O_2 transmission has a massive effect photoelectrically because of the electronegativity of oxygen. This can create some comfort issues. Some people cannot wear silicone lenses. Wearing glasses, of course, fix this issue. You could consider orthokeratology where you wear a lens at night and your eye breaths normally all waking hours. This is done with a rigid gas permeable lens with a very high DK (O2 transmission/permeability).

*Most soft contact lenses **do not** have a UV blocker in them.* On the UV issue remember that glasses for most people block more UV than their contacts. Glasses, however, are easier to remove in direct sunlight so they provide ample flexibility to get UV, see, and acquire oxygen and lower ROS signaling in the matrix while decreasing the amount of ELF-UV our cells release pathologically to cause disease. Also, we need direct sunlight generally to get UV on our surfaces as mentioned above. It's interesting that the number one correlate to myopia progression is how little time a child gets outside in full spectrum sunlight. This problem is massive in Asia today.

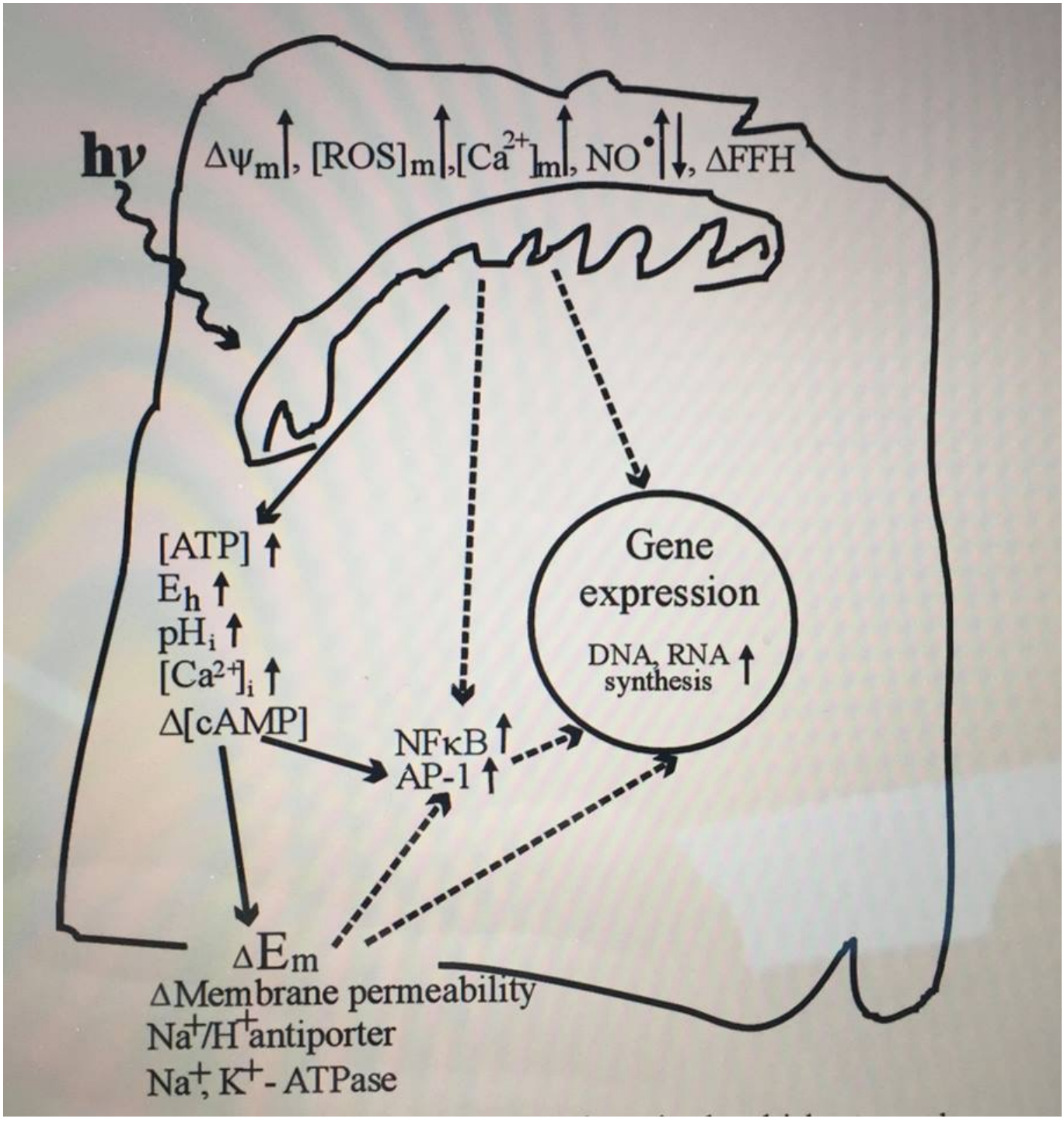
Contacts also block oxygen absorption by the cornea.

This is one of their major down pitfalls. Why is this a bad thing? Oxygen is the 3rd most abundant element and has special features that make it "*life and light friendly*". Since life is carbon-based, and among the elements, only 9 are more electronegative than carbon. This means we have few atomic choices that can serve as electron acceptors from carbon-based life forms. Of the 9, selenium, sulfur, iodine, krypton, bromine, nitrogen, chlorine, oxygen, and fluorine, oxygen ranks second in electronegativity to fluorine. This means the reduction of oxygen (adding of electrons) provides close the largest possible transfer of energy for each

electron. In addition, O_2 is paramagnetic and drawn to things like mitochondria that create magnetic fields. This is an added boost to energy production that none of the other nine elements can provide. This one feature increase electron tunneling speeds from NAD^+ to oxygen in mitochondria to allow life to occur. You might be finally understanding why pseudohypoxia and low NAD^+ status is so problematic for a mitochondrial function now. It lowers the quantum yield of all organisms in how it can work with sunlight.

The contact conundrum develops. DK/t is a measure of how much oxygen the lenses let through. That parameter is the transmissibility level (abbreviated DK/t), the Dk per thickness of the lens, and is generally more used. In soft contact lenses, it is dependent on the thickness of the lens and the material of the lens being used, especially concerning the water content. Oxygen permeability (OP) is a parameter of a contact lens. OP expresses the ability of the lens to let oxygen reach the eye by diffusion. *The cornea is one of the very few tissues in the body without a blood supply so it absorbs its oxygen directly from the air it touches.* Pseudohypoxia is a protective sign in mitochondria when we put something in front of our eyes. When a tissue develops pseudohypoxia has changed the type and amount of free radical signals (ROS) a mitochondrion makes. This changes the amount of ELF-UV a cell releases Contact lenses cause that stimulus anytime they are worn. **ROS leads to photoelectric energy loss in cells. It really causes a loss of information from tissues.** This "photo" inefficiency causes a decrease in the work that can be done by the eye in the retinal pigmentum epithelium (RPE). As the work function drops tissue lose their ability to stay far from equilibrium. The RPE has dense core granules do not spin as fast as they should even with the UV light stimulus. This is because the quantum yield to sunlight is reduced by low oxygen tensions and low levels of NAD^+ in the mitochondria of the RPE. This is what Dr. John

Ott found in his research mentioned above. This surface stress directly alters the retinal layers by changing how their mitochondria can function. How? By increasing the size in Angstroms of the respiratory proteins to slow electron tunneling.



Anything that sits on the pupillary surface ruins its physical interaction with light. When this occurs, it changes what can

physically happen at deeper levels where the RPE water interface. Why is this a big deal? It changes the dielectric constant of water in the RPE of the eye. Nothing is more important than the water in the RPE. Why? **Water in this area keeps the RPE cool.** UV light and cool water on the face can stimulate the vagus nerve in the back of the orbit to increases its tone to help keep the eye clock working. ***UV light can raise the temperature of the RPE to 40 degrees C in bright summer conditions.*** Water is the ideal chromophore for heat. What did Tensegrity 10 say about that state affairs in the mitochondria?

Any change to the dielectric constant of water in the RPE will change the atoms in tissue around it. What is around it? The Macula. Then the macula thins, age-related macular degeneration shows up out of the blue. As AMD shows up, and your retina thins, your age even faster. We should also expect to see a shrinking brain occur if this persists. I want you all to know today modern medicine has zero solutions to AMD. Why? *They don't understand optical physics.* ***Today, after this blog you will.***

The dielectric constant describes the ability of a material to store energy in water, whereas, the loss-factor defines energy dissipation of a material. The energy in the eye should be natural sunlight. When abnormal spectrum from an alien source hits the retinal blood flow does not come to the retina surfaces as it should under the direction of NO release. The same process happens on the skin and gut when light or food hit them respectively. The same thing happens with other forms of EMF but in different ways, but the results are the same because the stress response is always identical. When microwaves or blue light are used on a living tissue it becomes dehydrated and ROS raises and singlet state free radical predominate. Water has the highest dielectric constant in life at 78. When you microwave your eyes with a phone or Bluetooth device, nuke food daily, or look at an alien sun

24/7, you are removing potential energy from your life equation because kinetic energy drops off a cliff. Why? Einstein's photoelectric effect circa, 1905 which states:

E = *hf*. E is energy and = WORK + $(\text{kinetic energy})_{max}$

The energy ***hf*** of the incoming photon is equal to the sum of the minimum energy needed to liberate the electron to liberate the electrons from DHA/O_2 (that is the work function, **W**) and the kinetic energy, $\mathbf{KE}_{max}$ of the most energetic electron.

^^^^BIG DEAL.

THE POWER OF THE SUN DICTATE HOW LIGHT IS USED IN EYES AND LEAVES

Where do electrons for photosynthesis and mitochondria come from? water. Light splits water making use of energy trapped by sunlight, which yields electrons associated protons and oxygen. Water is the ideal chromophore for a red light. This creates the EZ. UV light extends the EZ tremendously because it absorbs at 270 nm in addition to the IR spectrum. The electrons from water are designed to interact with the pi electron clouds in DHA/O_2 in the RPE of the human eye, melanin and carotenoids in the skin, gut, and lung surface.

So we are clear: the energy capture by photosynthesis alone is IMMENSE: approximately 100 trillion watts (1 trillion watts = terra watt TW). That is ten times the current power consumption of man. 80% of this wattage comes from the UV part of the spectrum alone because the UV part has the smallest frequency, therefore, the most DC electric power. Its range is 260-400 nm in the solar spectrum.

Note: That UVA or UVB light is not present 24/7 on the globe anywhere. This includes the equator because of how UV light traverses and interacts with the atmosphere. When light rays are oblique UV light is filtered by ozone. This is why UV

light only appears later in the morning. It shows up first and quickest in equatorial regions and then as the morning progress and the sun is more overhead, making the rays less oblique the amount of UV that falls to the surface increases.
  This is why plants grow optimally in the tropics but not directly at the equator. The UVB/UVA power is immense.

For this reason alone, plants are adapted ideally to blue-green frequencies for two reasons. They are always present 24/7 and they are next highest in frequencies, wattage, and DC electric current. Since plants cannot move position on Earth much they are slaves to frequencies that do not vary. Eukaryotes, however, can take full advantage of the UV frequency because of one adaptation. Their ability to use DHA on cell membranes. This is why the RPE of the retina has more DHA than another place in the human body. It also means that they can harvest the most powerful wattage that sunlight provides to use the photoelectric power the most. This design makes sense when you consider that eukaryotes are not connected to the sun or the magnetic field as plants are. The frequency usage of plants and animals is really tied to their ability to move or not.

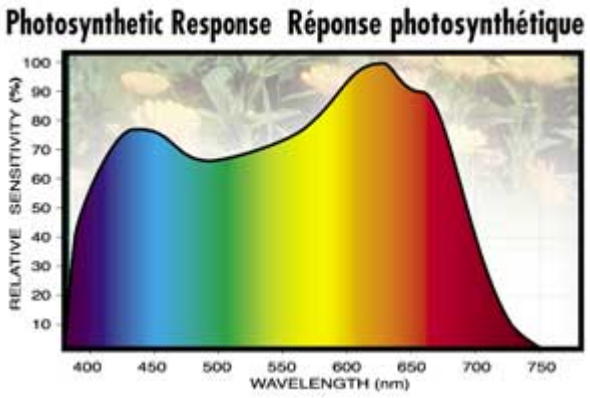
All photosynthetic organisms convert about 100 -115 petagram (1Pg = 10^{15th}) of carbon into biomass per year!!!!!!

Just as humans need a balanced diet of electrons/protons, plants need balanced, full-spectrum light electrons for good health and optimum growth. The quality of light is as important as quantity in plants and animals. **Plants are sensitive to a similar portion of the spectrum as is the human eye.** This portion of the light spectrum is referred to as photosynthetically active radiation or PAR, namely about 400 to 700 nanometers in wavelength. Nevertheless, plant response within this region is very different from that of humans. The reasons are mentioned above.

The human eye has a peak sensitivity in the yellow-green

region, around 550 nanometers. This is designed for the eye camera part of the eye where the colored cones work with red blue and green. This is the “optic yellow” color used for highly visible signs and objects. Plants, on the other hand, respond more effectively to the red light and to blue light, the peak being in the red region at around 630 nanometers. Plants do this because water is the ideal chromophore for infrared (IR) light. IR light is also present day and night. This is another feature plants would value to run their light and dark reaction centers 24/7. They make use of water’s ability quite well to run their biology 24/7 whether the sun is present or not.

Note, however, that blue light from the sun contains the higher amount of DC electric current for plants than the infra blue frequencies in sunlight. Frequencies below 400 nm could not be counted on for plants so their chromophores are not ideal fluorophores per say. That means their proteins are adapted and attuned to the light that is chronically present, not occasionally present. Plants do have chlorophyll types that have evolved the ability to absorb UV below 400 nm. This is especially important in the tropics. This is why the most common version of chlorophyll has evolved to absorb ideally in the blue-green range. Blue light is always present and contain enough power to run a life force that does not disconnect from the sun or the Earth much at all. This is how plants absorb the more dense energy source of light to regenerate their DC electric current. The graphs below show the human eye response curve and the plant response curve. Note the vast difference in the contours.



In the same way fat provides the most efficient amount of electrons/protons for humans, red light provides the most efficient food for plants. Red light moves things with mass. It is effective because of how water absorbs and stores red light. It is also effective because IR light is present day and night 24/7. However, a plant illuminated only with red or orange light will fail to develop sufficient bulk because the DC electric current cannot provide the power to do work photoelectrically. Leafy growth (vegetative growth) and bulk also require blue light because it is in this frequency of light where the DC electric current is buried for plants. Many other complex processes are triggered by light required from different regions of the spectrum in plants and in humans. The correct portion of the spectrum varies from species to species. However, the quantity of light needed for plant growth and health can be measured, assuming that all portions of the spectrum are adequately covered. Light for plants cannot, however, be measured with the same standards used to measure light for humans. Some basic definitions and distinctions follow that are useful in determining appropriate ways to measure the quantity of light for hydroponic plant growth. Can we grow plants without soil and just use lights power?

The December 2015 webinar just released would say no doubt it does, but how?

In recent years, it has become increasingly cost-effective to use artificial lights for assisting plant growth. Lighting costs and lamps have become less expensive, and very efficient light sources are now available in high wattages. These developments along with the ability to preserve and transport plants and produce as well as special new products in demand today have resulted in a lucrative market for hydroponic products, that is, products are grown without soil.

Artificial light can be used for plant growth in three different ways:

1. To provide all the light a plant needs to grow.

2. To supplement sunlight, especially in winter months when daylight hours are short.

3. To increase the length of the "day" in order to trigger specific growth and flowering.

Recall from the Ubiquitination series I made the link that our gut microbiome was analogous to the soil in plants. The pupil is analogous to a leaf on a plant. So if you are a human have a bad gut or an eye disease might we help a human grow and thrive without their version of a soil or a set of bad eyes? I believe the answer is yes. This is where the idea of the Quantlet came from in my mind. I thought we had to have a way to augment this mechanism in a world that is interfering with them to help humans. I put this all down on paper and Ruben Salinas and our team built it.

To grow plants hydroponically we need artificial lights. In plant lighting, watts is an objective measure of energy being used or emitted by a lamp each second. Energy itself is measured in joules, and 1 joule per second is called a watt. A 100-watt incandescent bulb uses up 100 joules of electrical energy every second. How much light energy is it generating? About 6 joules per second or 6 watts, but the efficiency of the lamp is only 6%, a rather dismal number. The rest of the

energy is dissipated mainly as heat.

What are plants ideally adapted too? Sunlight.

Reminder: the energy capture by photosynthesis alone is IMMENSE: approximately 100 trillion watts of power per day!

Modern discharge lamps like high-pressure sodium (HPS) and metal halide convert (typically) 30% to 40% of the electrical energy into light. They are significantly more efficient than incandescent bulbs because they subtract out UV light.

The main ingredient in plants that is responsible for photosynthesis is chlorophyll. Chlorophylls are not all created equal as I laid out in the Ubiquitination series. Some researchers extracted chlorophyll from plants and studied its response to different wavelengths of light, believing that this response would be identical to the photosynthetic response of plants. However, it is now known that other compounds (*carotenoids and phycobilins*) also result in photosynthesis. **Many people do not know that carotenoids in plants and human skin and retina are also boosters for solar power generation. Eyewear reduces that ability.**

The plant response curve, therefore, is a complex summation of the responses of several pigments and is somewhat different for different plants. An average is generally used which represents most plants, although individual plants may vary by as much as 25% from this curve. While HPS and incandescent lamps are fixed in their spectral output, metal halide lamps are available in a broad range of color temperatures and spectral outputs. With this in mind, the discriminating grower can choose a lamp that provides the best spectral output for his specific needs.

In addition to photosynthesis which creates material growth, several other plant actions (such as germination, flowering, etc.) are triggered by the presence or absence of light. These functions, broadly classified as photomorphogenesis, do not

depend much on intensity but on the presence of certain types of light beyond threshold levels. Photomorphogenesis is controlled by receptors known as phytochrome, cryptochrome, etc., and different plant functions are triggered in response to infrared, blue or UV light. Humans also use similar cytochrome proteins to work with light.

This is OK for plants, but what is optimal for humans?

BACK TO THE HUMAN EYE

Putting a contact lens on your cornea reduces the work that can be done by light photoelectrically. What else do contacts on your cornea due to the retina below it? They change the surface tension of the cornea.

Why is surface tension important for energy generation from light?

Rayleigh–Bénard convection is a type of natural convection, occurring in a plane horizontal layer of fluid heated from below, in which the fluid develops a regular pattern of convection cells known as Bénard cells. The cornea and eye are horizontal in relation to the RPE that is generating massive heat below the cornea. The formation of convective Bénard cells are not unique to the eye and will usually appear in many cells when the surface tension allows for it. Let me say that again. When you wear contacts you lose surface tension. To make a Rayleigh–Bénard convection cell work optimally with incoming light via the pupil and the surface tension must be low on the cornea. Surface tension helps drive convection with light and the force of gravity! This explains why astronauts vision is destroyed in space. Space is a microgravity environment.

Convective Bénard cells tend to approximate regular right hexagonal prisms, particularly in the absence of turbulence. This explains two more problems for contact wearers. The deeper RPE also has hexagonal cells that match the shaped

convection cells by design. **Contact lenses increase surface turbulence by creating friction.** This destroys the formation of self-organizing Rayleigh–Bénard convection cell in water by light and gravity.

The rotation of the cells is stable and will alternate from clockwise to counter-clockwise horizontally; this is an example of spontaneous symmetry breaking behavior in these cells. Because of this ability, Bénard cells are metastable in how they react to light frequencies. This means that a small perturbation of surface tension of light frequency will not be able to change the rotation of the cells, but a larger perturbation like the onset of nighttime or the wearing of a contact lens could affect the rotation in the cell; The collisions of light with these cells creates a memory of the collision in how they rotate. In this way, they exhibit a form of hysteresis.

Hysteresis is the ***time-based dependence*** of a system's output on the present and past inputs. Here you can see how a contact can alter timing in the surface of the cornea. The dependence on time arises because the history affects the value of an energy flows in internal state at deeper layers in the eye. To predict its future outputs to the SCN, either its internal state of the RPE or its history with light collisions must be known and imprinted. They are imprinted by the speed of turning of the dense core granules in the RPE.

Now here is a good time to review the implications of all this physics to the observations made in 1964 again. ***In 1964, John Ott along with Dr. Irving Leopold studied the effects of light on rabbit retinal pigment epithelial cells. They documented that that retinal pigment epithelial would not divide unless they were exposed to low levels of ultraviolet light. Roeland van Wijk research has shown that every cell on Earth has to release ELF-UV light from its surface to stimulate mitosis.What this implies is that UV light is necessary for our health because the RPE in the human retina controls our***

eye clock!

So surface tension reduction on the cornea by a contact = surface free energy losses further mimicking the photoelectric loss of work => lots of papers how light and lasers affect wettability on surfaces as measured by work of cohesion/adhesion, contact angle, and the subsequent drop in interfacial tension. Modern manufacturing is now using this now for roll-to-roll processes and microfabrication. Check out the "Corona treatment" to learn more about surface tensions and light; its been around since early 1950's. Plasma treatment has been used on gas permeable contacts to increase wetting too. ***So this means that the contact manufacturer's know this is a big issue with respect to light.*** They try to downplay it with marketing because they are hoping you suck at understanding optical physics and photoelectric chemistry. Most do. My advice: With respect to contacts its time to stop looking for ways to screw the quantized processes Mother Nature built in our eyes and live within her boundaries. The advice is consider getting rid of the contacts if you use them.

THE EYE IS A SURFACE OPTIMIZED TO THE PHOTOELECTRIC EFFECT

In terms of near work for a nearsighted person, it is less work to focus with glasses than contacts. Here again, you see where the photoelectric effect plays a massive role few observe or talk about in wellness. This implies there is less of a stress response to the diffraction system in the eye. This means contacts are not as energy or information efficient. Energy and or information efficiency is lost as one comes close to the pupil because it is a perfect black box radiator. *The energy loss is mediated by the photoelectric effect work function mentioned above. Information is lost by angular momentum.*

Glasses sit on the bridge of your nose and have space between them and the pupil. Oxygen levels are not affected much by

glasses. This slight change has to do with the optics of a lens distant from the eye vs. right on the eye. In terms of basic optics often glasses are the most natural option for a microwaved alien sunlit world. It may not be your “vanities choice” but glasses are a better choice than contacts because of these two issues. Most contacts, however, do not block UV light. This is a distinct advantage; so you need to ask your provider about your contacts lens specifics to see what they block.

Food cannot explain the effects of light in your eye. Time to wise up or dumb down your long-term results.

Remember that doing anything other than being outside and

looking 6 feet away is a neolithic stressor for the eye. When you're in a poor environment with a low quantum yield for light, glasses can become your best protection because they can be constructed to change the light your eye does see when it is alien to our biology. Changing contacts is not as easy. When you get rid of your computer and live outside this all becomes a different discussion. Today 95% of humans live an indoor life because of their jobs and shifts, and this is compounded by our culture and society who favors covering their eyes with sunglasses, glasses, or contacts and wearing clothes on most of their skin. This is like putting a tarp on a tree, the tree would not grow well with a disruption of light on its leaves, so it should make sense why your pupil and skin needs a constant stimulus for light. ***In order for an adaptation to occur in a cell designed to capture electromagnetic waves, the stimulus must be chronically present and resonate properly in the sensory receptor and in the sensory area of the brain to register the proper optical signal.*** This is altered with contacts, glasses, and clothing. The best surface to keep exposed to humans is their eyes and skin.

Contacts are popular because of vanity. Some people eyesight is so bad that glasses can often double as birth control! But when you understand the optics of the eye clock, you will never get to optimal wearing things over your eyes. This seems like a small thing, but it entirely overlooked by most people. The cost is zero!!! In my opinion, vanity is one of the poorest reasons never to get to optimal in my opinion. With glasses, you can remove them easily when in sunlight. One should not wear sunglasses unless you are under constant light albedo stress. This occurs on the water or on snow.

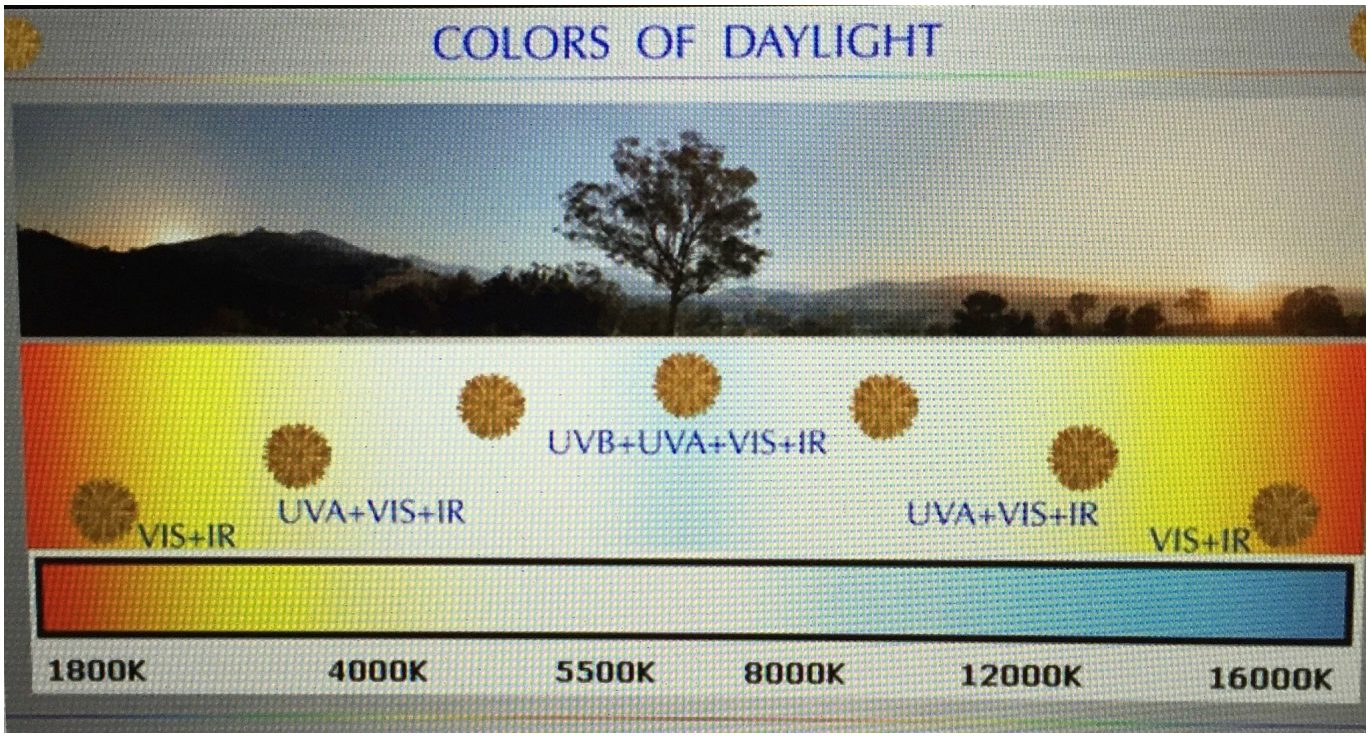
This is why I got rid of all contacts long ago went strictly to glasses. You can still become charming behind the lenses of glasses with UV and O_2 if you remove them from your nose to build dopamine in your eye. You also decrease vagal tone in

the back of your eye where the nerves receptors are on our blood vessels that feed the RPE. People are magnetically drawn to the changes made in your eye and brain, and not your facade. People focus too much on facade's these days and not upon substance because they have no dopamine in their orbits and frontal eye fields. This leads to poor decision making because dopamine levels fall.

THE EYE CLOCK Rx: Please share this with all humans who need it.

Enter the keys from the Ubiquitination series and the importance of light on our surfaces:

The ubiquitination series brought you the concept of pseudohypoxia and low NAD^+. Recall that pseudohypoxia is linked to how many light cells release and what type of ROS/RNS they deal in. (Triplet or singlet state). The lower oxygen goes into a cell the less ELF-UV light it releases. This is protective. Tumorous cells increase oxygen delivery by releasing angiogenesis factors to cause massive increases in ELF-UV light liberation. Where does this light come from? Could it be DNA, the matrix, or our cell membranes? As light is lost, less UV light is stored in our protein fluorophores and this affects melatonin levels. Blue light exposure in our eyes and skin really causes us to leak UV light like mad.



Everyone should install iris or f.lux software on all phones, iPads, and computers. Consider buying a pair of blue blockers first to wear at night. I use **www.Raoptics.io** glasses. You can use code "Optimal" to save a few bucks. If they work well consider buying glasses with blue tech lenses to wear indoors when you are around high color temperature lights (blue). You should also chronically turn off all the fake lights around you while indoors day or night or at home or at work. If you live equatorial or subtropical just get your eyes into the sun. If you live outside the tropics when spring and summer arrive where you live decided to be in the sun as much as possible. Here is the counterintuitive point for the eye clock Rx (coming below).

When you are adding sunlight to the RPE in the strong light signal of UV, at the same time begin to eat more seasonal carbs than usual. The results might astound you. The RPE and gut signal must be yoked. This is easy to accomplish after completing the Leptin Rx because carb cravings are gone in fall and winter. What will you notice when you do this? Your eyesight improves, mood improves, and you'll lose weight more easily while on a seasonal carbohydrate load. The key is

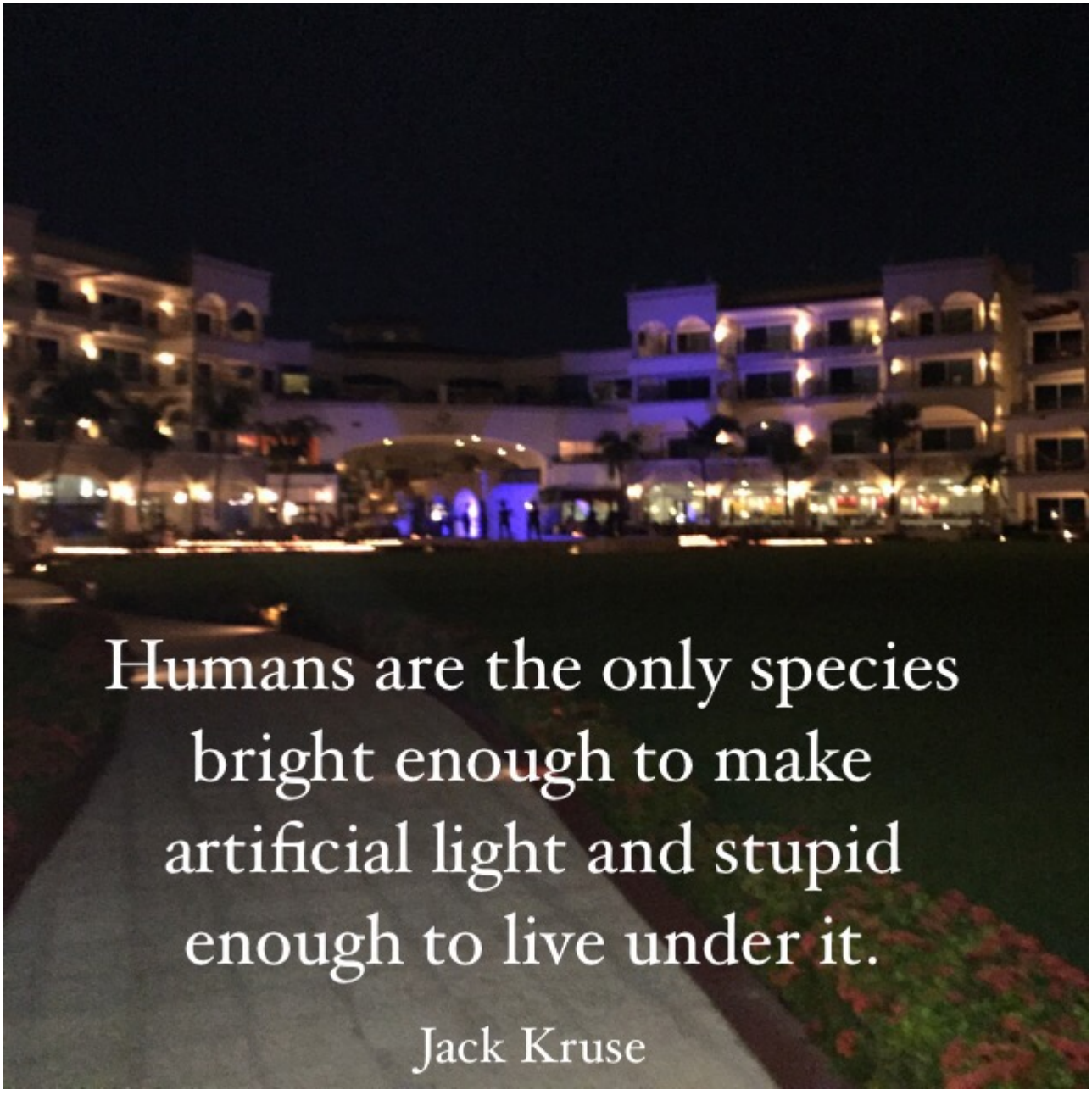
having the UV signal in the RPE when you give the gut the UV signal from the carbohydrates. In this way, you are riding the electromagnetic waves properly to control circadian signaling. It is akin to a surfer riding a wave to shore versus trying to paddle against the waves to catch a wave. Eating out of season destroys circadian signaling. In this way, you begin to see the counterintuitive nature of the quantum world manifest in your health bank account. As you improve you can imagine the flood of newborn mitochondria in your eye, skin, and gut. This is how we ideally replace redox shift mitochondria without any drugs, diets, or supplements. Ketosis is a seasonal program for poor light environments only. Nutritional ketosis and LCHF did for years only increases the chance of mitochondrial senescence. This was the lesson in ***Ubiquitination 4-6 blogs.*** Review them.

SUMMARY REVIEW:

I've written this elsewhere but I think it will help people understand what lenses do besides alter the pupil; it throws off the specific frequency dance that the retina and brain need to specifically use to drive the molecular clock in the eye and in peripheral clocks: READ IT CAREFULLY because many are likely missing massive pieces of this sequence that are blocking your understanding:

What does full spectrum sunlight destroy naturally in humans? UV light lowers adrenalin and norepinephrine the stress hormone of the sympathetic nervous system in the eye. This links UV light to the vagus nerve behind the eye in the orbit, and that UV stimulus improves vagal tone with the deft touch of purple light. What else does it do at the same time inside the myriad of retina cells and layers to improve the EZ of water? The initial building of EZ is by IR light (red) but is enlarged by purple light. This is why the EZ absorbs ideally at 270 nm = UV light. Why does water seem to favor strong UV light? All cells in the retina are normally stressed by AM blue sunlight (blue =ROS) to release small

amounts of ELF-UV light from the surface to signal. These UV photons re-zip collagen in the anterior and posterior chamber (vitrosin). What unzipped collagens? Cortisol does. Cortisol rises at 4 AM and increases water flows to stretch the space between glial cells and neurons to wake us up. AM sunlight alters cortisol from the solar skin stimulus assuming your skins opsins sees the sun. Neuropsin and melanopsin are those opsins. Cortisol is initially released at 4 AM by the pituitary to begin the process of waking us up assuming the melatonin cycle is not broken.



Don't work on bio-hacking sleep. MITOhack your light

environment……When you miss sunrise and your choices cause you to missing darkness at night with too much blue light and allowing way too much blue during the day then you have a red light to balance it. Perspective change is in order. I want you to focus in on eliminating your “alien sun’s” at night 100% of the time. Once completed, your sleep returns and your regeneration begins. UV with IR are the frequencies of rebuilding and regenerating your eye clock.

If you fail in getting natural sunlight could you augment yourself artificially like a hydroponic plant does? Could you consider using a quantum wearable device like the Quantlet? Yes, you could if you cannot get sunlight. Might advice is to change your life and make sure you get sunlight.

Why does that occur? Because blue light stimulates water flows through AQA-4 gates between glial cells and neurons to wake us up. That process using the blue light needs to be curbed to make it an acute damaging, effect, not a chronic stimulus. How do we limit blue to an acute ROS maker? Red light balances it out in sunlight. Red light lowers ROS in the matrix. The Rx is built into AM sunlight by an equal amount of red light. This balances the effect of blue ROS generation and limits it. When it is not curbed, because we chose to live under an alien sun, poor sleep, depression, anxiety, and chronic headaches are likely. Depression can lead to formal mental illness if the chronic blue stimulus persists. It can manifest in this alien sun environment by itself to reduce vagal tone in the orbit. Cold water on the face and eyes, as well as UV light, can stimulate vagal tone behind the eye. This is why vagal stimulation works to curb headaches, seizures and treat depression!

Light between 465nm and 500 nm begins the process of waking us by unwinding collagen in our skin and retina to allow water to stretch the extracellular space between neurons and glial cells to create waves in our cells to wake our body and mind up at dawn from sleep. These blue light frequencies in the

EARLY AM help turn on the pituitary on an acute basis. AM sunrise has equal parts of the blue, green and red light spectrum for cells. This Rx of blue light makes triplet state ROS and swells the cytochrome proteins in a controlled fashion but this stimulus is always balanced by the red spectrum of sunlight to keep autophagy operational in cells. Recall that red light shrinks the cytochromes proteins to improve electron tunneling (Cox = cytochrome 4 has 4 red light chromophores). *Abnormalities in optical signaling in Cytochrome c oxidase alters apoptosis.*

What regenerates the entire eye clock system occurs later when UV light shows up. It inactivates the stress hormones created by the presence of light and stores the massive amount of DC electric current from the later appearing UV AM light in proteins like melanin. The RPE in the retina is a massive warehouse of melanin and dopamine. Melanin releases its payload to tissues at night in the absence of short wavelength blue (melanopsin 400-465nm) to replete the DC electric current in RPE and retinal cells at night. Why does this specific dance occur? At night there is no sun. There is an absence of lower frequency blues: these bad blue light frequencies should always be absent in 400-465 nm range. Today they are the most common form of light we have at night. All tech uses it and our cities are lit up by it. AM blue sunlight contains a lot of 470-500nm blue light which is stimulating because of how it wakes us up and turns on hormone release acutely in the pituitary gland. Sunlight is the key to resetting your eye clock and getting to optimal. Protect your eye clock……it is the key to maintaining wellness.

CITES

Personal communications with Ruben Salinas and Tom Doud, O.D

Light: Medicine of the Future, Jacob Liberman, OD Bear and Company 1999
Dr. Liberman’s interview on Healthy vision

Light Radiation, and You, John N. Ott Devin-Adair 1982
Mother Jones Magazine June 1978
Am J Ophthalmol. 1982 Mar;93(3):299-306. Action spectrum for retinal injury from near-ultraviolet radiation in the aphakic monkey.
Lancet, Volume 320, Issue 8293, Pages 290 – 293, 7 August 1982. Malignant Melanoma and Exposure to Flourescent Lighting at Work.

http://www.healingtheeye.com/Articles/UV_light.html

TheQuantlet.com