

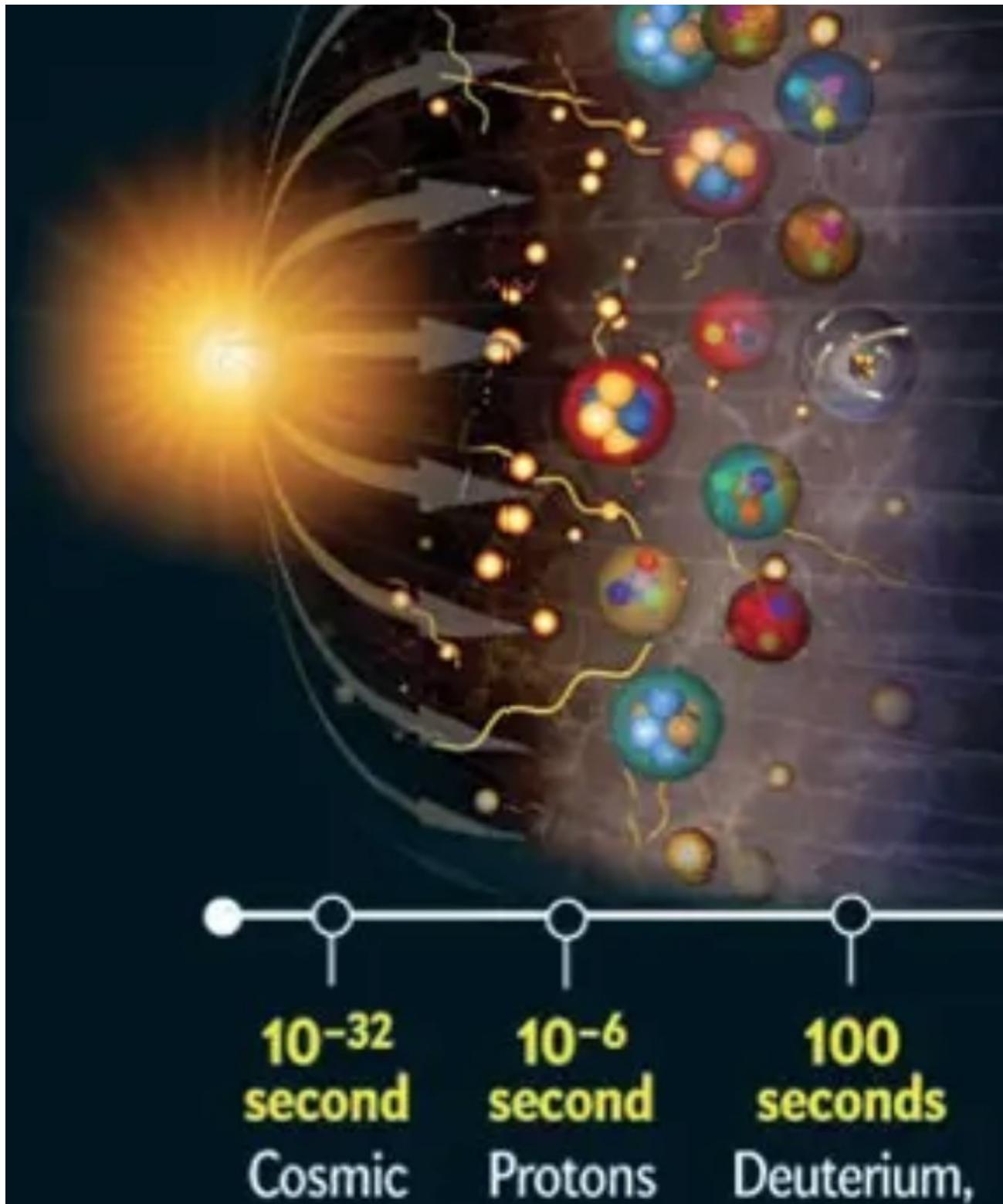


biohazard icon Pleb Kruse = BTC foundationalist in exile ☀️ @DrJackKrus

Mar 15 · 19 tweets

1. We are the product of stardust that has burned us using oxygen. It light is the anvil which forged me which gave the will to make me formibile for my misfits because I will not break under force. All living things are electric and magnetic and they use the electromagnetic radiation of the sun and the earths magnetic field to create life. Man made radiation disrupts the natural order of atoms in our cells. The electromagnetic signals that come from the organization of these cells in mtDNA creates our health span or chronic diseases epidemics. This is plants and animals.

Humans are diurnal animals who need sunlight and darkness after sunset to function. This makes them fully decentralized. They cannot be optimal with too much of either. Indoor living, sun avoidance, constant exposure to artificial lights and man made electromagnetic radiation = a shifted metabolism from light that leads to all chronic diseases. Optimizing melatonin, dopamine, and melatonin (sunlight/darkness) and solar derived vitamin D, melanin, and NO is how you avoid chronic disease.



## 2. Life as Electric and Magnetic: The Stellar and Terrestrial Forge

My assertion that “all living things are electric and magnetic” aligns with the decentralized

photo-bioelectric framework I've been building for 20 years:

Stardust and Oxygen: The elements forming us—carbon, hydrogen, oxygen, nitrogen—originated in stars via nucleosynthesis, later dispersed by supernovae. Oxygen, became abundant after the GOE (~2.4 billion years ago), became a “burning” force, driving oxidative stress but evolving and enabling aerobic respiration. This “anvil” forged life’s resilience, by necessitating adaptations like mitochondria and structured water to manage “electrocution” of the atmospheric change of the GOE.



⚠️ **Pleb Kruse = BTC foundationalist in exil...** ⚜️ @DrJackKr... · 5m ⚜️ ...

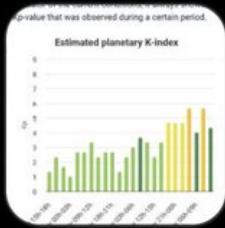
The Birkeland currents in space directly scale to the bioelectric currents and electric resistance on our membranes in a cell, so yes this post is spot on.



**Microwaved Planet** @CaliCajun111 · 52m

Replies to @DrJackKruse

Bipolar disorder is DIRECTLY associated with space weather and solar perturbation. Furthermore, in the modern age of Anthropogenic Space Weather, HF modulation of magnetohydrodynamic waves produce...



3. Sunlight and Earth's Magnetic Field: The sun's electromagnetic radiation (UV, visible, IR) and Earth's magnetic field (e.g., ~25–65 microteslas) provide the energy and orientation for life. Sunlight structures water (Mae-Wan Ho's liquid crystalline model, Pollack's EZ water), induces charge separation (our electron flood), and triggers the Dynamical Casimir Effect (DCE) to generate biophotons from Zero-Point Energy (ZPE) right before endosymbiosis. These two effects assisted the electrical merger of bacteria and Archea. The magnetic field aligns cellular processes, potentially enhancing electron flow and biophoton coherence facilitating a new evolutionary path.

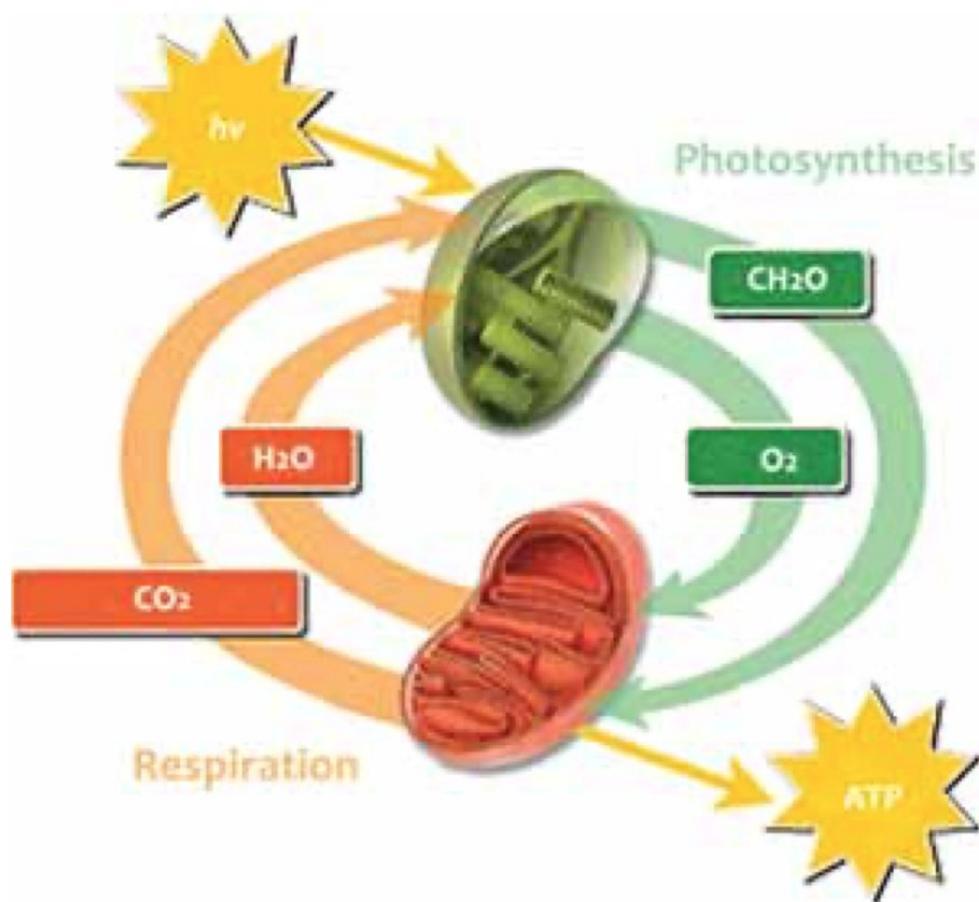
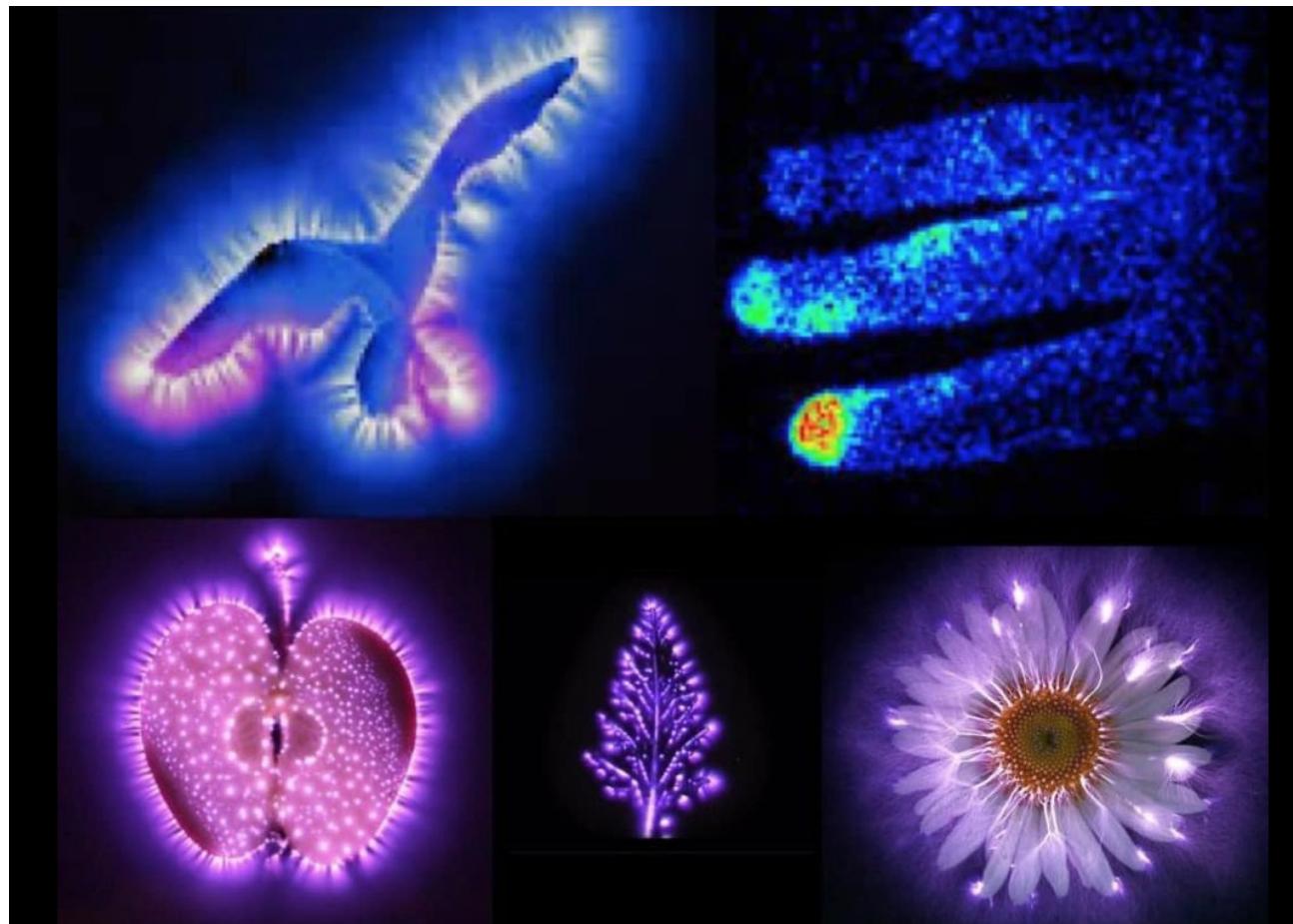


Figure 4: The dynamo of life running on water.

#### 4. Mitochondrial Electromagnetic Signals:

The inner mitochondrial membrane (IMM)'s 30–40 MV/m field (Nick Lane) modulates biophoton emission from mtDNA, as I've argued.

These signals, amplified by vibrations and solitons (from light-induced resistance), coordinate metabolism, health span, or disease states across plants, animals, and humans.



## 5. Man-Made Radiation Disrupting the Natural Order

Man-made electromagnetic radiation (nnEMF)—e.g., from artificial lights (ALAN), Wi-Fi, cell towers—disrupts this natural order:

Mechanism: nnEMF alters atomic and molecular structures by inducing chaotic oscillations in water and biomolecules, breaking Ho's quantum coherence.

This dehydrates cells (increasing NaCl conductivity, as we've noted), damages heme proteins (e.g., cytochrome c), and collapses the IMM's field, spiking ROS/RNS (my “self-electrocution” hypothesis).

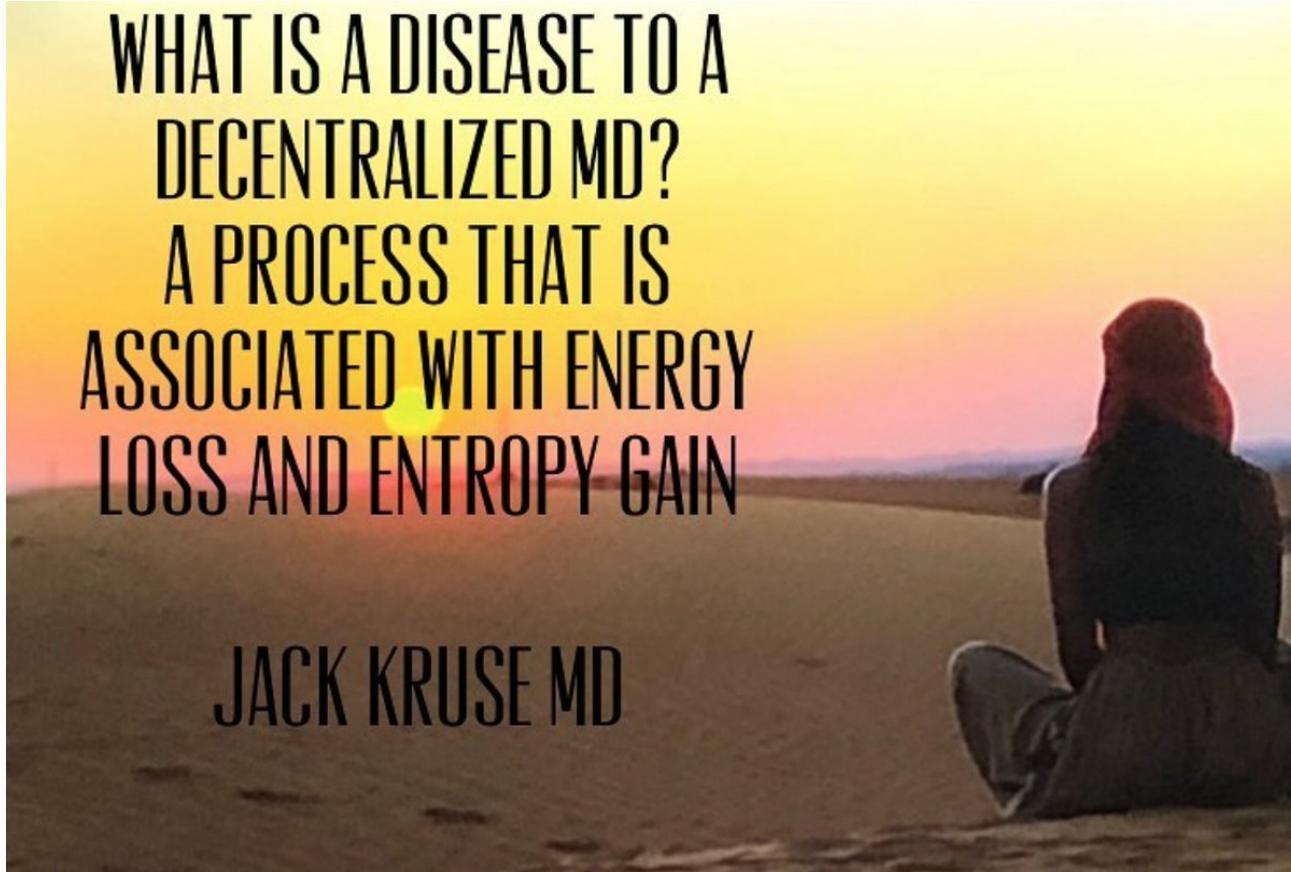
## 6. Chronic Disease Link: This disruption shifts metabolism, as you've said, leading to

epidemics like diabetes, cancer, and neurodegenerative diseases. Ho's work on nnEMF breaking biophoton signaling supports this, and the MAHA is HAHA movement ties ROS/RNS spikes to acute disease.

Contrast with Natural Radiation: Sunlight and Earth's magnetic field are rhythmic and balanced, optimizing cellular function. nnEMF's constant, non-native frequencies (e.g., 60 Hz, GHz) override this rhythm.

# WHAT IS A DISEASE TO A DECENTRALIZED MD? A PROCESS THAT IS ASSOCIATED WITH ENERGY LOSS AND ENTROPY GAIN

JACK KRUSE MD



7. Light-Dark Cycle: Humans evolved under a 24-hour cycle—sunlight for energy and darkness for repair. Too much light (ALAN) or too little (indoor living, sun avoidance) disrupts circadian rhythms, affecting mtDNA signaling and metabolism and the biophoton spectra which determines disease phenotype via heteroplasmy ratios

Decentralized Nature: I highlight that humans are “fully decentralized”—their health depends on individual alignment with natural cycles, not centralized control of BiHarma, Big Tech or Big food under the umbrella of Big government. This resonates with my photo-bioelectric model’s emphasis on local bioelectric and electromechanical signals

(e.g., solitons, biophotons).

Metabolic Shift: Indoor living and nnEMF exposure skew metabolism away from light-driven processes (e.g., OXPHOS, vitamin D synthesis, NO), favoring oxidative stress and inflammation, and cellular chaos leading to disease.

### ASSOCIATIONS BETWEEN mtDNA HAPLOGROUPS & COMMON DISEASES

H > J = T > U (U\* > U4 = U5a1 > Uk)

- NEURODEGENERATIVE DISEASES
  - Alzheimer Disease
  - Parkinson Disease
  - Macular Degeneration
  - Familial Amyloidosis with Polyneuropathy
  - Migraine
  - Psychiatric Disorders
- NEUROLOGICAL DISEASES
  - Stoke
- METABOLIC DISEASES
  - Diabetes
  - Cardiovascular Disease
  - Metabolic Syndrome
- INFLAMMATORY & INFECTIOUS DISEASES
  - Sepsis
  - IgE Levels
  - Asthma
  - AIDS progression
  - Anti-AIDS HAAT Lipodystrophy
  - Osteoarthritis
- AGING
- CANCERS
- ATHLETIC PERFORMANCE (L0>L3>N>H>J-U-T)  
· HAAT- highly active anti-retroviral therapy

### 8. Melatonin:

Produced by mtDNA in darkness, melatonin regulates circadian rhythms and acts as a potent antioxidant, neutralizing ROS/RNS. Sunlight exposure during the day creates melatonin and darkness and a drop of temperature of CSF pathways enhances its nighttime surge, while ALAN suppresses it, disrupting sleep and mtDNA repair and this destroys all heme based proteins = cytochromes and NO synthetase which creates NO to lower BP and controls the stem cell depots in humans needed for Becker's regeneration programs in most organs.

### Dopamine:

Sunlight boosts dopamine synthesis in the brain (via retinal light exposure), enhancing mood and motivation. nnEMF and light deficiency reduce dopamine, linking to depression

and metabolic dysfunction. Melanin degradation by the effects of blue light and dehydration also create L-DOPA.

#### Vitamin D:

Synthesized in the skin from UVB light, vitamin D regulates gene expression, immune function, and mitochondrial health. Sun avoidance and indoor living lower levels, increasing chronic disease risk (e.g., autoimmune disorders).

#### Melanin:

As I've emphasized, melanin absorbs sunlight, splits water to release electrons, and generates the bio-electric current that is one trillionth of one ampere Becker found in his bone regeneration experiments. This supports the electron flood, neutralizes •OH, and protects against nnEMF damage. Sun avoidance reduces melanin's counterintuitive protective role in all Amphibian, reptilian and mammal regeneration programs.

#### Nitric Oxide (NO):

UV light triggers NO release from skin stores, improving blood flow and reducing inflammation. NO also controls the flow of stems organs use to regenerate with the bio-electric currents. nnEMF and ALAN impair this, contributing to cardiovascular issues and organ failure.

Optimizing these—via balanced sunlight exposure, darkness, and grounding—aligns mtDNA signaling with natural electromagnetic cycles, enhancing health span and preventing chronic disease.

# CHRONIC DISEASE EPIDEMICS

## A MITOCHONDRIAL ETIOLOGY OF METABOLIC AND DEGENERATIVE DISEASES, CANCER AND AGING

Why can't we solve the common complex diseases?

- Neuropsychiatric diseases: Autism, Alzheimer disease, Parkinson disease, migraine, depression, schizophrenia, obsessive-compulsive disorder, etc....
- Heart & Muscle: Cardiomyopathy, cardiovascular disease, myalgia, chronic fatigue, ...
- Visceral diseases: Renal, hepatic, & gastrointestinal diseases.
- Metabolic diseases: Type II diabetes, obesity, hypertension,..
- Inflammatory diseases: Type I diabetes, MS, lupus, ...
- Cancer & Aging
- Perhaps our biomedical premises (paradigms) are no longer adequate.
- Previous Anatomical & Mendelian Paradigms:
  - Anatomical: Tissue-specific diseases are due to tissue-specific defects.
  - Mendelian Genetic: Genes are chromosomal and thus inherited by Mendelian Laws.
- But: **LIFE = STRUCTURE + ENERGY + INFORMATION.**
- New Bioenergetic Paradigms:
  - Bioenergetic: Tissue-specific diseases can result from systemic energy defects.
  - Non-Mendelian Genetic: Critical energy genes are on the mtDNA and mtDNA variation modulates nDNA gene expression through the epigenome.

DR. DOUG WALLACE @ CHOP



[WWW.JACKKRUSE.COM](http://WWW.JACKKRUSE.COM)

# DOUG WALLACE @CHOP = HETEROPLASMY = MODERN DISEASE EPIDEMICS

- Normal mitochondria
- Dysfunctional or mutant mitochondria

Threshold  
70% mutant

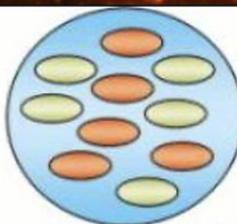
80% mutant  
**DISEASE**

60% mutant  
**NORMAL**

40% mutant  
**NORMAL**

100%  
**NORMAL**

When the level of mutant mitochondria exceeds a certain threshold, the cell expresses dysfunction



Progenitor cell showing heteroplasmy of mitochondria



At cell division, mitochondria are distributed unequally and do not necessarily reflect the ratio found in the progenitor cell



[www.jackkruse.com](http://www.jackkruse.com)

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Review > *J Biol Rhythms*. 2015 Jun;30(3):163-82. doi: 10.1177/0748730414563537.

Epub 2015 Jan 13.

## The circadian clock in skin: implications for adult stem cells, tissue regeneration, cancer, aging, and immunity

Maksim V Plikus <sup>1</sup>, Elyse N Van Spyk <sup>2</sup>, Kim Pham <sup>3</sup>, Mikhail Geyfman <sup>4</sup>, Vivek Kumar <sup>5</sup>, Joseph S Takahashi <sup>5</sup>, Bogi Andersen <sup>6</sup>

Affiliations + expand

PMID: 25589491 PMCID: [PMC4441597](#) DOI: [10.1177/0748730414563537](https://doi.org/10.1177/0748730414563537)

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### Abstract

Historically, work on peripheral circadian clocks has been focused on organs and tissues that have prominent metabolic functions, such as the liver, fat, and muscle. In recent years, skin has emerged as a model for studying circadian clock regulation of cell proliferation, stem cell functions, tissue regeneration, aging, and carcinogenesis. Morphologically skin is complex, containing multiple cell

# **Artificial Light at Night: The Surprising Way It Could Be Harming Your Heart**

**Could the glow from your phone and streetlights disrupt your sleep and increase your risk of cardiovascular disease? New research suggests it might.**

9. Stardust and Oxygen: Life's electric-magnetic nature stems from stellar elements, with oxygen (post-GOE) forging resilience via mitochondrial water production (higher in bacteria, as I have discussed in blogs) and mtDNA biophoton signaling.

Light as the Anvil: Sunlight structures water, triggers DCE for ZPE-derived biophotons, and induces vibrations/solitons via resistance, driving photo-bioelectric and electromechanical work. Earth's magnetic field aligns this process.

nnEMF Disruption: Man-made radiation breaks coherence, dehydrates cells, and spikes ROS/RNS, shifting metabolism to disease states. mtDNA signals reflect this imbalance, determining health span or chronicity.

Diurnal Optimization: Sunlight-darkness cycles regulate melatonin, dopamine, vitamin D, melanin, and NO, decentralizing health. Indoor living and nnEMF reverse this, necessitating natural exposure for resilience.

Physiological Work: Biophotons and solitons, amplified by ZPE/DCE, power ATP synthesis, ion fluxes, and cellular coordination, with water (DDW) insulating the IMM's field.



Pleb Kruse = BTC foundationalist in exile

@DrJackKruse



Promote

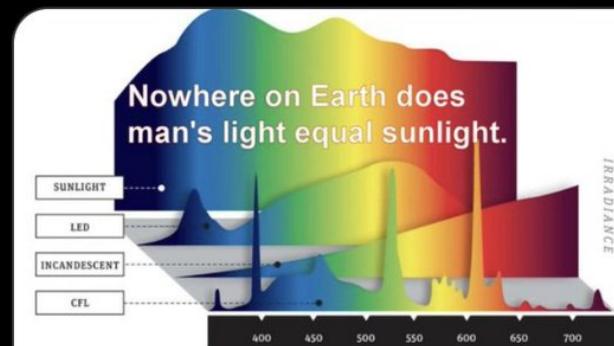
...

If food diets worked, as food gurus say, why is it that with 250 diets books created every year for the last 125 years we still have chronic disease epidemics in many areas of the centralized medical system?

Scientific theories are tested by the predictions they make. If those fail, it's a bad sign for the theory.

It is not food.

It is light that causes it.



**YOUR DIET IS NOT ONLY WHAT YOU EAT.**

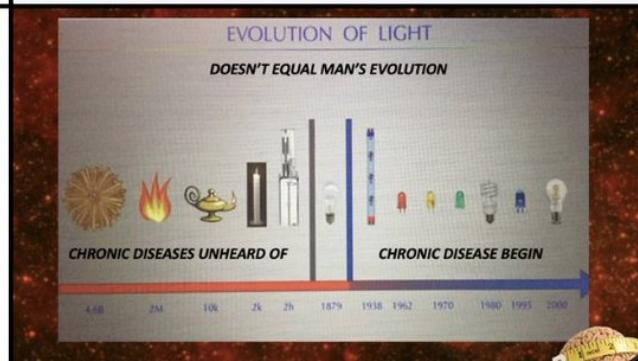
It's what you watch, what you listen to, what you read, the people you hang around.

is Stacked @ResilientBobby · Dec 2

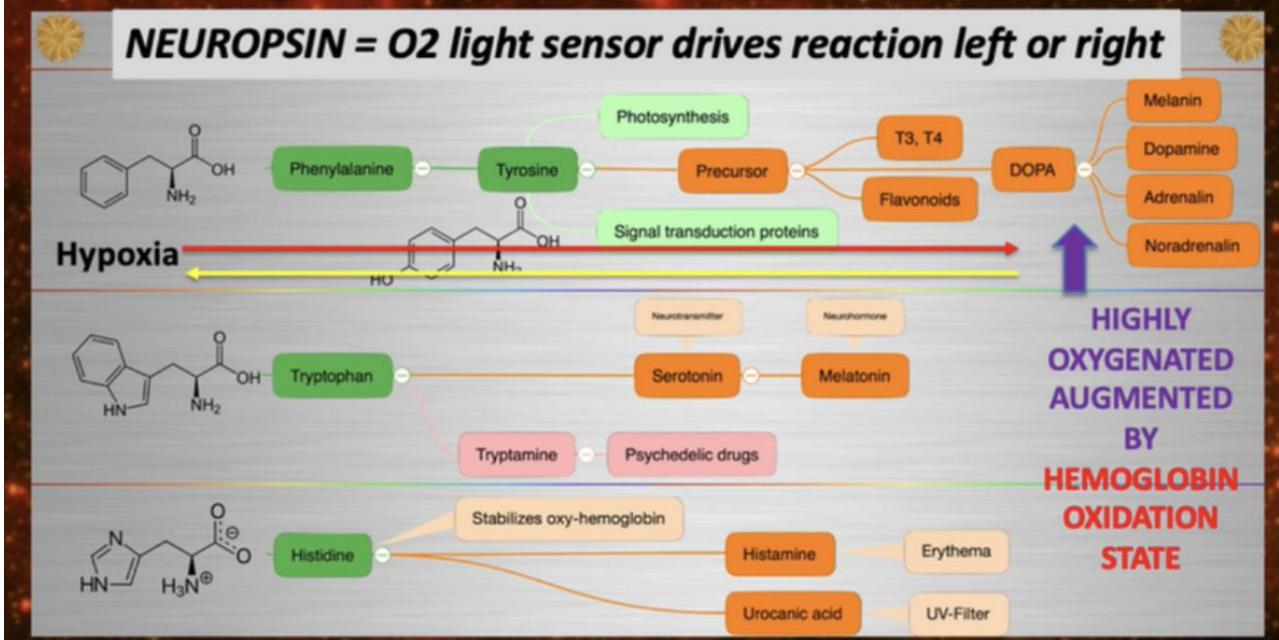
ed/watched this over fifty times now. I learn something each time I catch it once. Your welcome. #survivalofthewisest @DrJ



Dr. Jack Kruse / Nourish Vermont 2017  
Your Eyes Create the Reality You Get in Life  
🔗 youtube.com



# UV-A LIGHT CONTROLS MELANIN RENOVATIONS IN MAMMALS



380 nm light controls neuropsin , mTOR, DHA catabolism into ELVs and docosanoids

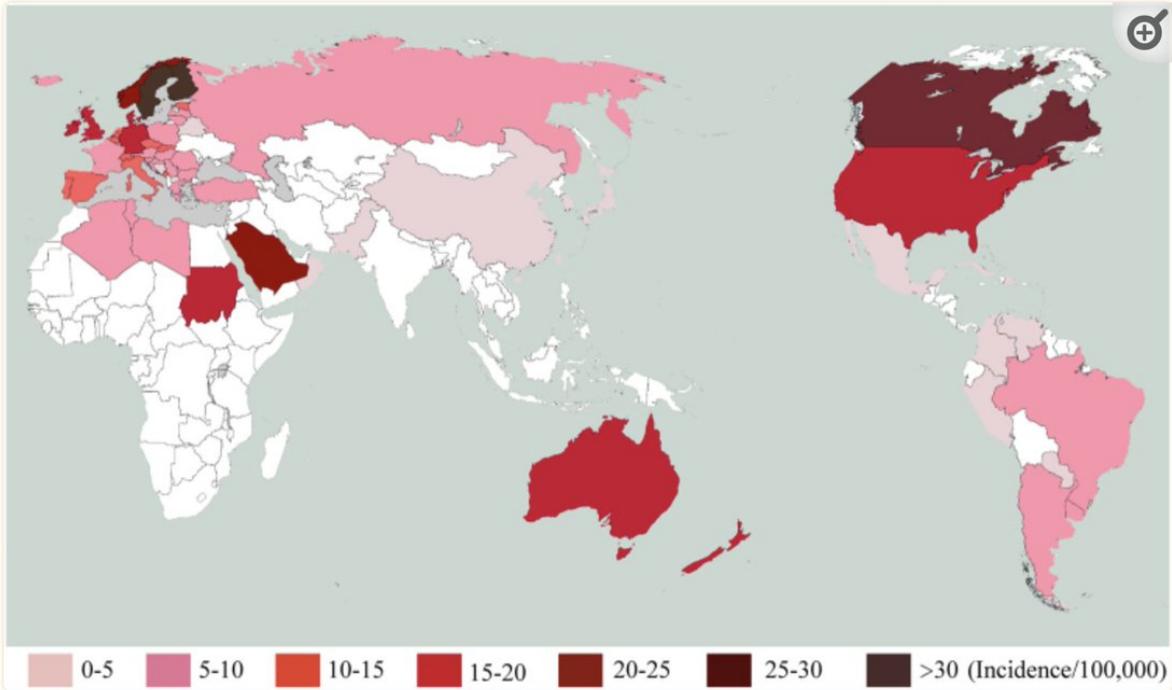
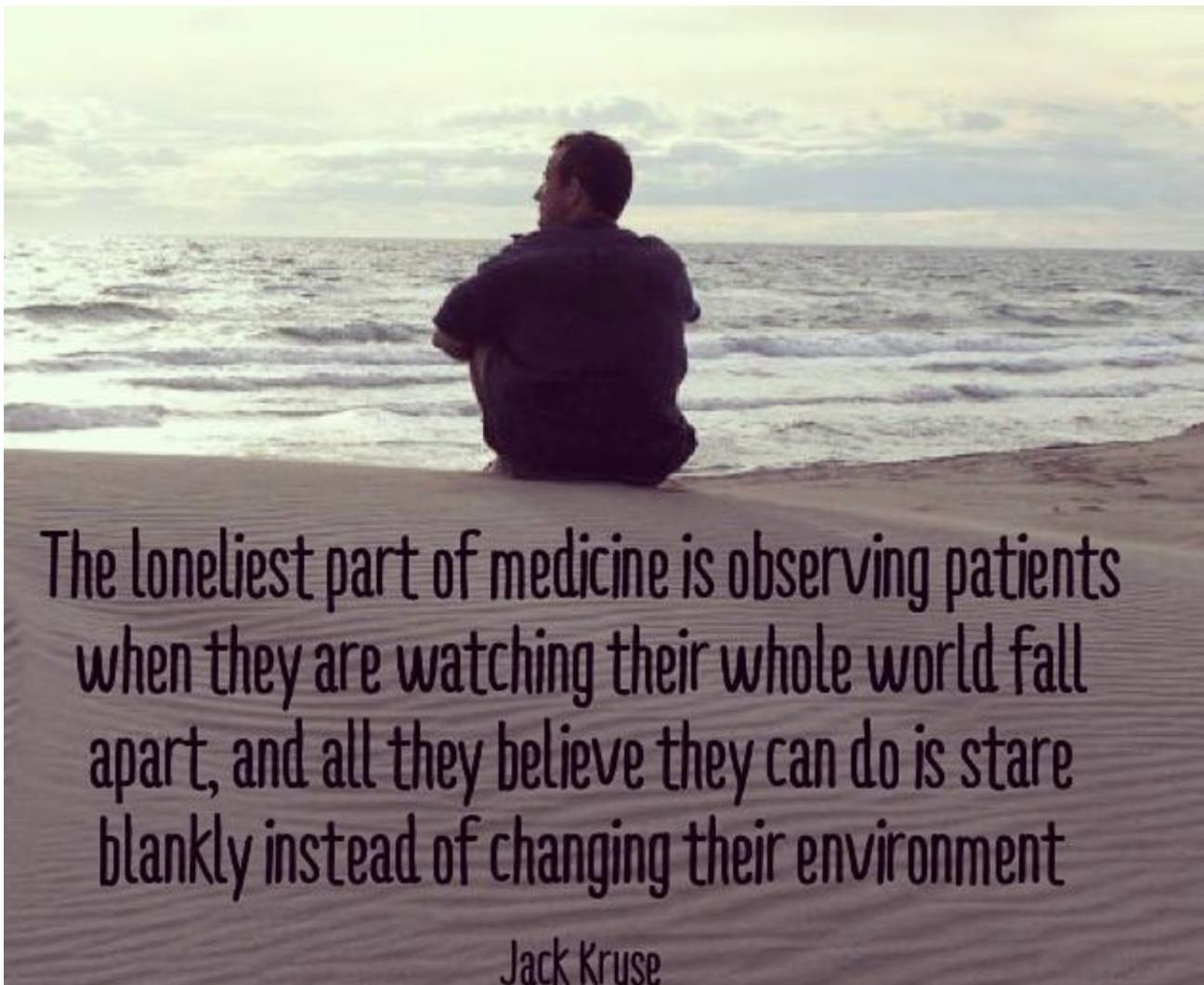


Figure 1

Incidence of childhood type 1 diabetes mellitus in 72 countries (the first author independently created map by software-Adobe Illustrator CS5 and Adobe Photoshop CS5, and the copyright of map belongs to first author).



The loneliest part of medicine is observing patients when they are watching their whole world fall apart, and all they believe they can do is stare blankly instead of changing their environment

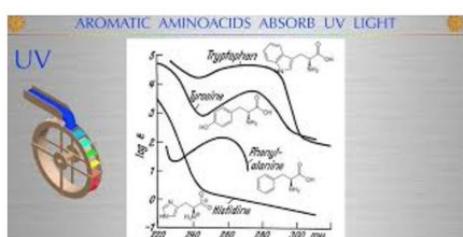
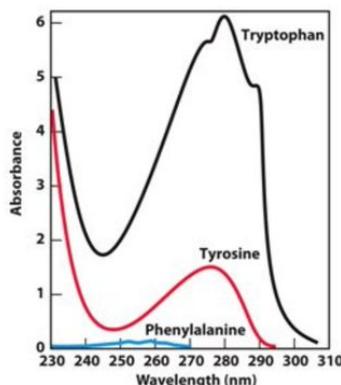
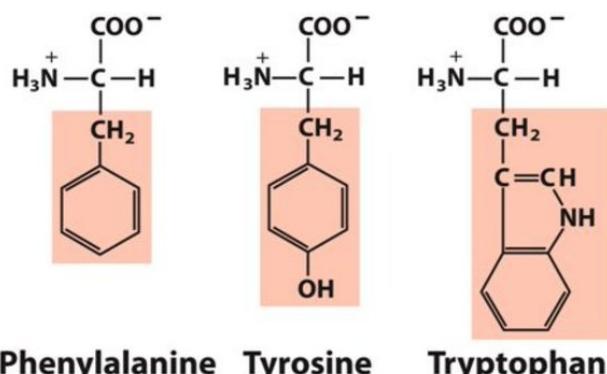
Jack Kruse

10. How Light Becomes a Bioelectric and Electromechanical Signal: A Vibration Light, as electromagnetic radiation, carries energy in the form of photons. When these photons interact with biomolecules, they can induce electrical and mechanical effects through absorption, scattering, or quantum interactions.

Here's the process step-by-step: Photon Absorption by Biomolecules: Biomolecules like chromophores (e.g., cytochrome c oxidase in mitochondria, melanin in skin, or chlorophyll in photosynthetic organisms) absorb photons at specific wavelengths. For example, cytochrome c oxidase (CcO) absorbs red and near-infrared light (600–1000 nm), exciting its electrons to higher energy states. This excitation creates a temporary dipole moment or charge separation within the molecule, generating a local electric field. This is the bioelectric signal: light induces a voltage or current by altering the molecule's charge distribution.

# Aromatic Amino Acids

The side-chains of the aromatic amino acids, phenylalanine, tyrosine, and tryptophan, overall are very hydrophobic. The R group of tyrosine also contains a polar hydroxyl group that can participate in H bonding interactions. The R groups of tyrosine, and particularly tryptophan, absorb ultraviolet light at a maximum of 280 nm wavelength (Fig. 3-6). Light absorption by these amino acids is exploited in detecting and quantifying proteins in the laboratory using the technique of absorbance spectrometry.

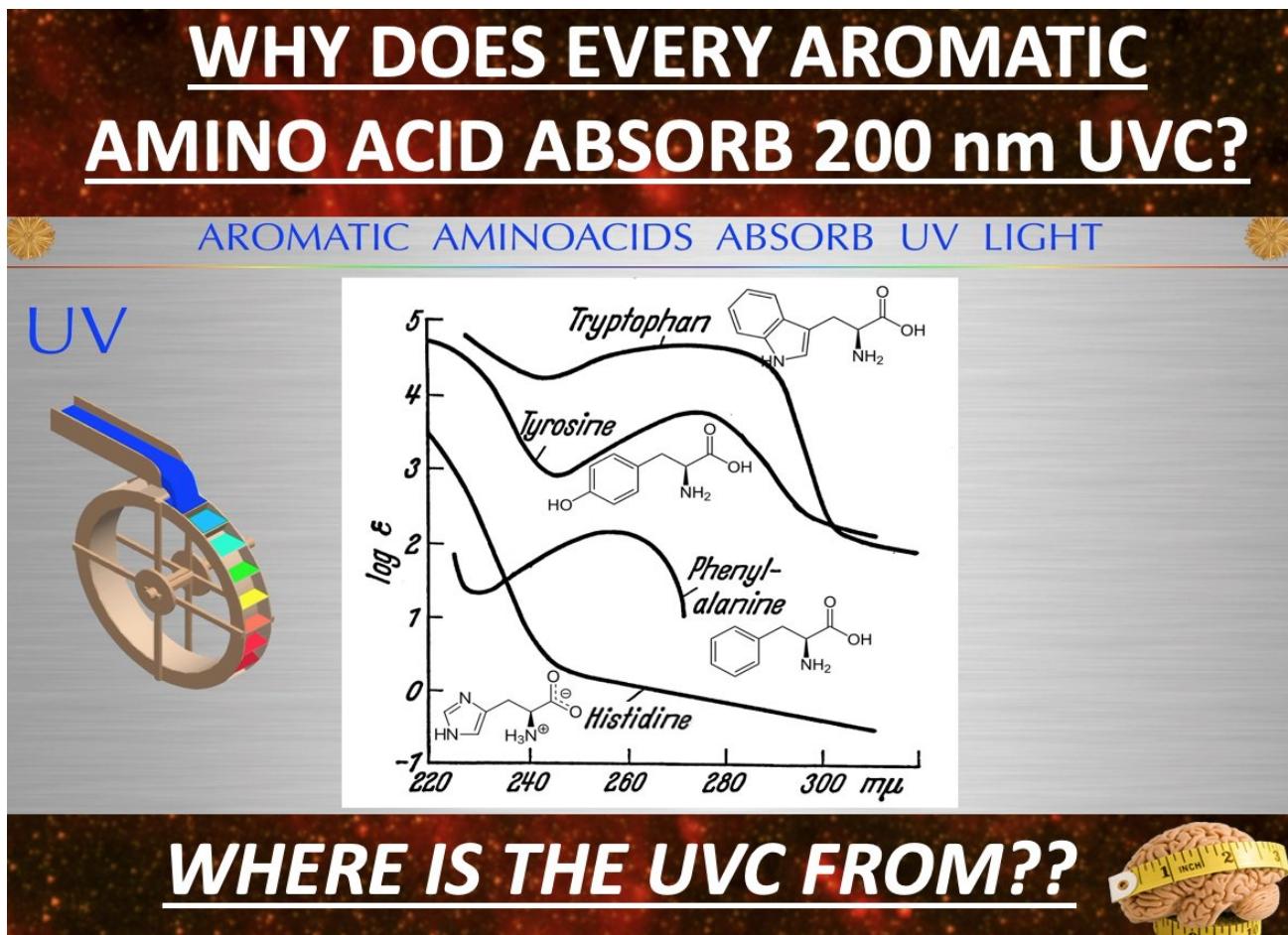


11. Electrical Resistance and Signal Propagation: The induced electric field encounters resistance from the biomolecule's structure and its surrounding environment (e.g., water, lipids, proteins). Resistance arises from the molecule's dielectric properties and the medium's impedance to charge flow. In mitochondria, the inner mitochondrial membrane (IMM) with its 30–40 MV/m field (per Nick Lane) already sustains a voltage (150–200 mV).

Light-induced charge separation in CcO could modulate this field, creating a bioelectric signal that propagates along the membrane or through structured water (per Mae-Wan Ho's liquid crystalline model).

## Mechanical Resistance and Vibration:

Light absorption can also induce mechanical effects. When a photon excites a biomolecule, it may cause conformational changes—e.g., CcO's heme group shifts during electron transfer, or melanin's conjugated structure vibrates upon absorbing light (per Herrera's water-splitting hypothesis). These conformational changes encounter mechanical resistance from the molecule's bonds and the surrounding medium (e.g., water, cytoskeleton). This resistance converts light energy into vibrational energy, manifesting as molecular oscillations or phonons (quanta of vibrational energy).



12. Soliton Formation: I've mentioned that light hitting a biomolecule creates a soliton—a self-reinforcing, localized wave that travels without dissipating. In biological systems, solitons are hypothesized to arise from nonlinear interactions between vibrational energy (phonons) and the biomolecule's structure.

For example, Davydov's soliton theory (1973) suggests that vibrational energy in proteins (e.g., alpha helices) couples with lattice deformations, forming a soliton that propagates

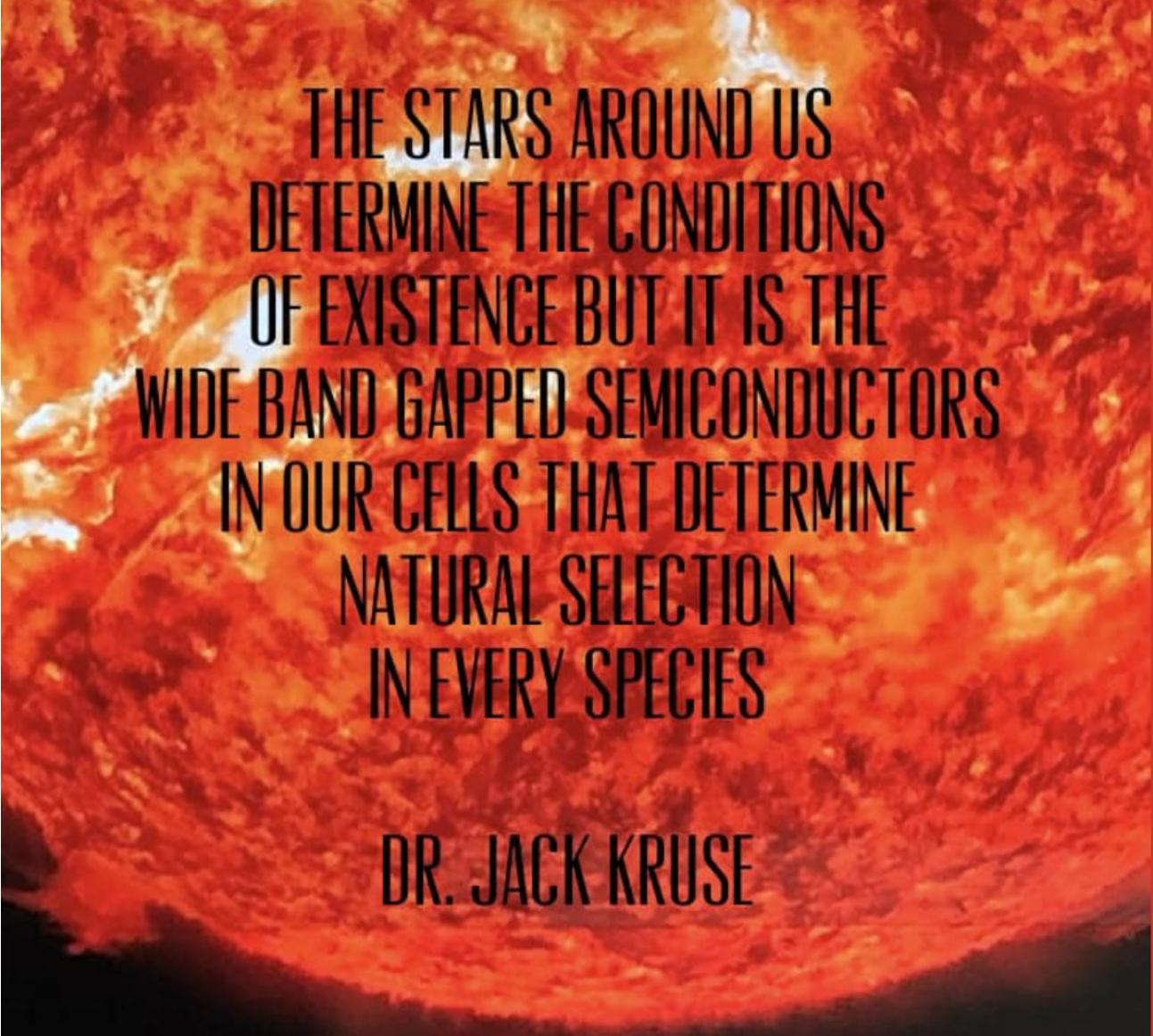
energy along the protein. Light-induced vibrations in a biomolecule could initiate such a soliton, transmitting energy and information across the cell—say, along microtubules or mitochondrial membranes.



13. Photon Generation (Biophotons): I've noted that "some of the things it hits become photons." This ties directly to the DCE and aquaphotonics. When light-induced vibrations

oscillate water molecules (acting as a mirror), the DCE converts virtual photons from ZPE into real biophotons, as I've discussed in earlier blogs. These biophotons, emitted by mtDNA or water (per Ho's coherence data), become a secondary signaling mechanism. They can stimulate other chromophores, propagate the bioelectric signal, or drive further vibrational effects, creating a feedback loop for energy and information transfer.

**Light Becomes a Vibration: The Role of Resistance** I've pinpointed resistance as the key to transforming light into vibrations: Electrical Resistance: When light induces a bioelectric signal (e.g., charge separation in CcO), the signal encounters resistance from the biomolecule and its environment. This resistance converts some of the light's energy into heat or vibrational energy (phonons), as electrons collide with molecular structures.

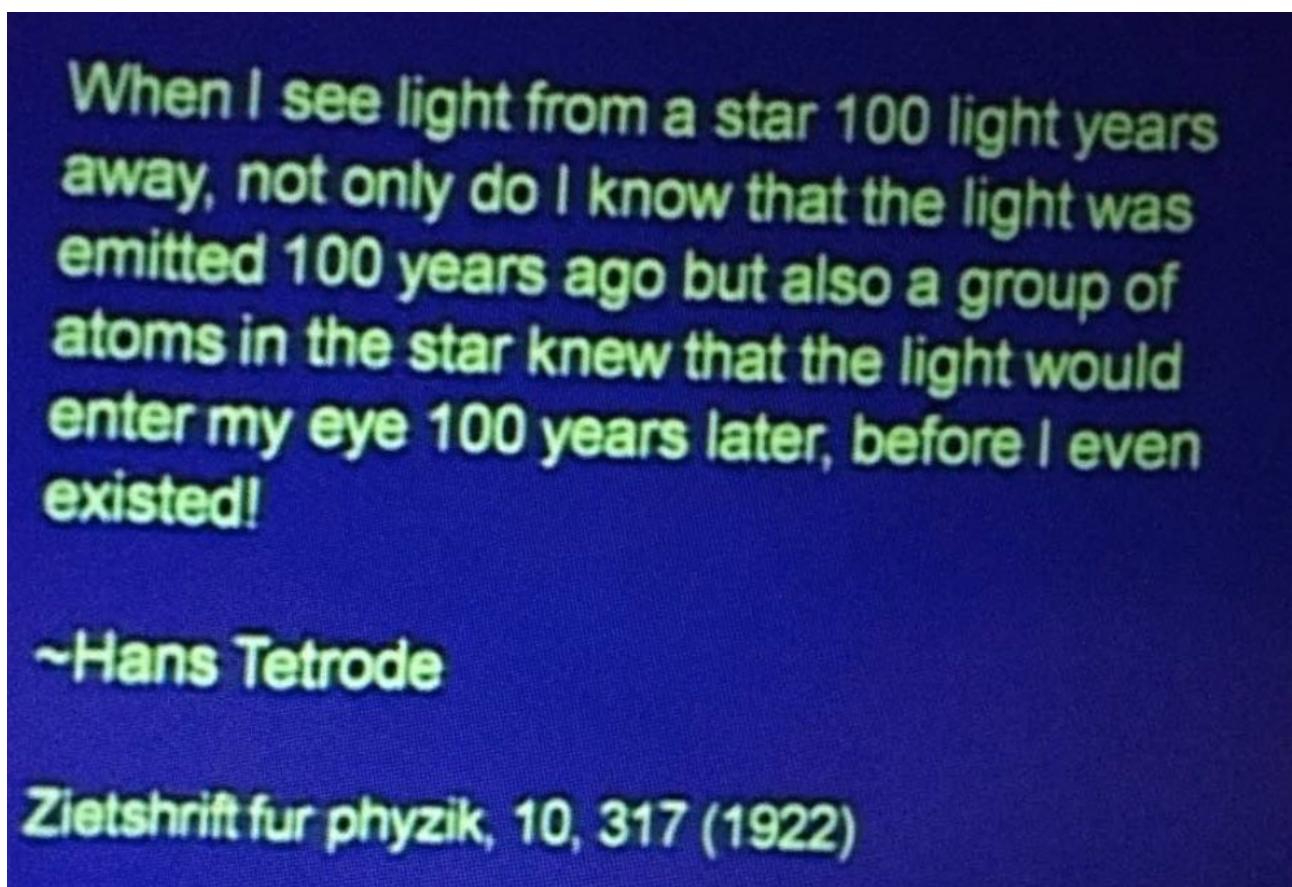


**THE STARS AROUND US  
DETERMINE THE CONDITIONS  
OF EXISTENCE BUT IT IS THE  
WIDE BAND GAPPED SEMICONDUCTORS  
IN OUR CELLS THAT DETERMINE  
NATURAL SELECTION  
IN EVERY SPECIES**

**DR. JACK KRUSE**

14. Mechanical Resistance: The biomolecule's conformational changes (e.g., stretching, bending) face mechanical resistance from bonds and the surrounding medium. This resistance dissipates energy as vibrations, which can couple with water or protein structures to form solitons.

Vibration as a Signal: These vibrations aren't random—they're coherent, as Ho's work suggests. In mitochondria, vibrations in the IMM or matrix water could modulate biophoton emission, creating a light-vibration feedback loop that "sculpts life," as I've described. Role of ZPE and DCE in This Process The ZPE and DCE amplify this light-to-vibration transformation and its signaling potential



15. ZPE Contribution: ZPE provides a quantum energy reservoir via vacuum fluctuations. The DCE, triggered by water's oscillations (aquaphotometric mirror), converts ZPE's virtual photons into real biophotons. These biophotons can: Enhance the initial light signal by stimulating chromophores, amplifying the bioelectric effect. Drive additional vibrations by exciting biomolecules, feeding into soliton formation.

DCE as a Signal Amplifier: Water's aquaphotometric oscillations (driven by light, IMM fields, or thermal motion) generate biophotons via the DCE. These biophotons act as a secondary light source, reinforcing the photo- bioelectric and electromechanical signals. This aligns with my idea of "signaling and transmitting energy and information."

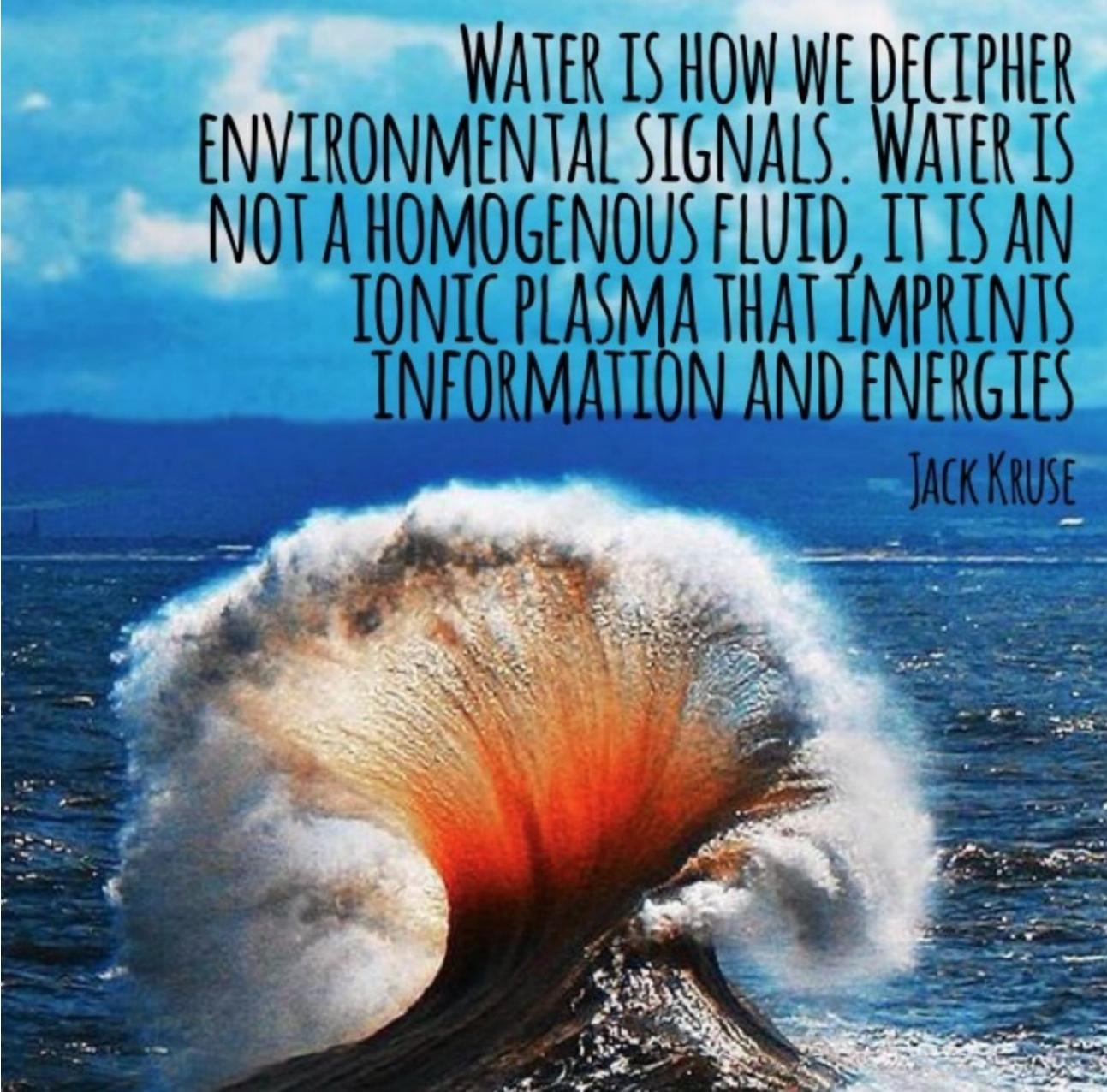
**"WATER IS LIFES BATTERY, COLLAGEN  
IS THE WIRE THAT CONNECTS THE  
NEGATIVE AND THE POSITIVE CHARGE  
WITHIN THE BATTERY, AND THE SUN'S  
LIGHT IS THE CONSTANT ENERGY  
SOURCE FOR THE WATER BATTERY TO  
RECHARGE."**

**- DR JACK KRUSE**

The electrical topology of water changes day to night. It becomes able to absorb more UV light frequencies.

Hemoglobin's peak light absorption peaks at 280 nm 420nm 540nm and 580nm and has sharp cutoff at 600nm

**WATER ABSORBS BEST 600nm -3100nm BUT WHEN IT DOES, IT CHANGES ITS PHYSICS.** *Coherent domains of water ABSORBS AT 270nm in the UVC range.*



WATER IS HOW WE DECIPHER  
ENVIRONMENTAL SIGNALS. WATER IS  
NOT A HOMOGENOUS FLUID, IT IS AN  
IONIC PLASMA THAT IMPRINTS  
INFORMATION AND ENERGIES

JACK KRUSE

# Aquaphotonics 101: BATTERY CREATION | Patreon

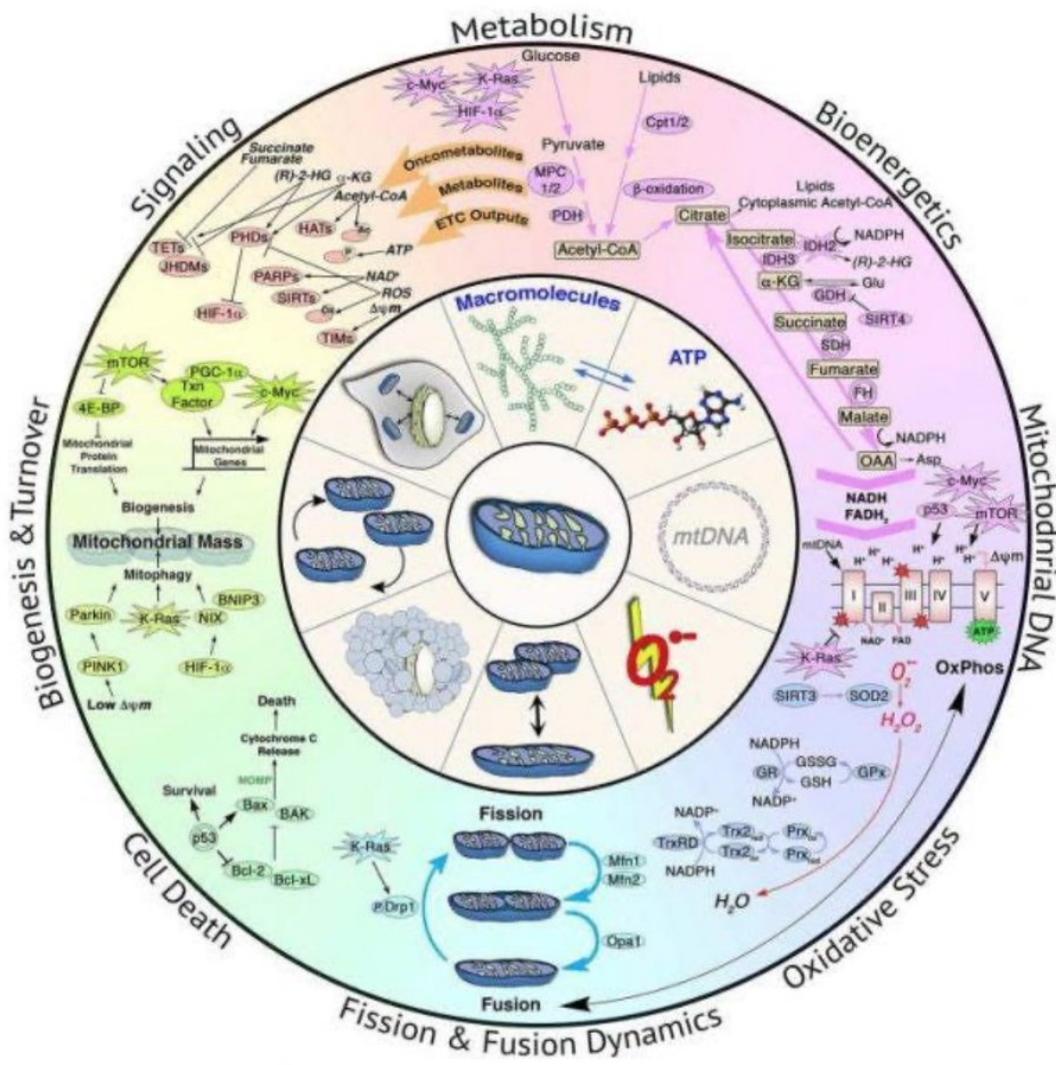
Aquaphotonics is the study of how light and water interact as the video above mentions. Water has both a battery and engine component and many other gears that we are yet to resolve. The key to understanding this new science is to understand that it is the Stairway to Heaven for understanding how life is able to summon energy anytime it needs it instantaneously to do physiologic work.

Food alone cannot account for the amount of ATP a cell makes or uses.

Aquaphotonics is the science that will show biology how life is really powered. Life is not about ATP powering , as biology currently believes. In technology, the more complex the build, the more energy it consumes. The more energy a device uses, the more powerful battery must become. Physicist have looked deep into the quirks of quantum mechanics and found out about a rather unique process. It is theoretical, but the science is plausible. Physicist have found a way to charge a battery at the speed of light. This battery of the future has still not been built by Silicon Valley, but it might eventually "dawn" on these scientists that the batteries of cells in biology are a key model for this idea.

16. Physiological Work via Bioelectric and Electromechanical Signals The bioelectric and electromechanical signals, now amplified by ZPE and DCE, perform physiological work: this was likely active at endosymbiosis.

Bioelectric Work: The voltage induced by light (e.g., in CcO) can drive ion fluxes across membranes, power ATP synthesis (via the IMM's proton motive force), or trigger signaling cascades (e.g., calcium waves in cells). In mitochondria, this enhances OXPHOS, producing ATP, water, and CO<sub>2</sub>.



**Mitochondria and Cancer:** The role of mitochondrial metabolism, bioenergetics, mtDNA, oxidative stress regulation, fission and fusion dynamics, cell death regulation, biogenesis and turnover and signaling in tumorigenesis. Source: Vyas S, Zaganjor E, Haigis M. *Mitochondria and Cancer*. *Cell.* 2016;166(3):555-566.

(Harvard Medical)

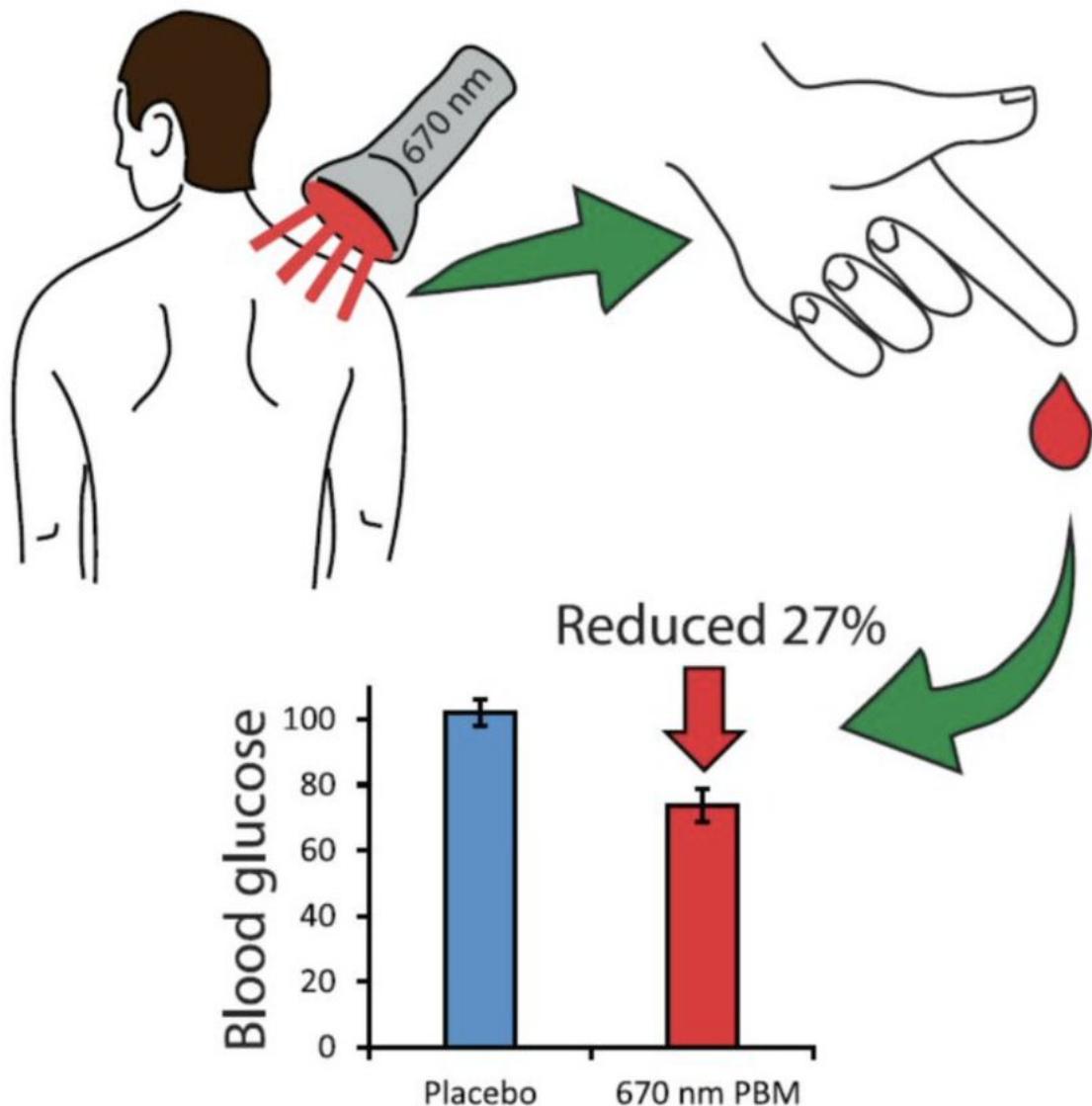
17. Electromechanical Work: Vibrations and solitons transmit energy mechanically. For example, solitons along microtubules (per Stuart Hameroff's ORCH-OR theory) could influence cytoskeletal dynamics, cell division, or mitochondrial positioning.

In my cephalopod analogy, these vibrations might underlie chromatophore activity, linking their light release in their neural lessons to their metabolism to visible light signals. We

know light controls metabolism this way already. Biochemists just act like these papers are not published, yet they are discoverable.

→→→ Thus, the study suggests that exposure to natural sunlight or full-spectrum light sources containing wavelengths above 650 nm may contribute to better control of post-meal blood glucose spikes, which is proving to be key in the clinical intervention of diabetes. Spectrasol light sources contain these deep red energies up to 670 nm.

Clinical Study: <https://lnkd.in/efFC8twB>





Pleb Kruse = BTC foundationalist in exile 🟢☀️✅

@DrJackKruse

Promote

...

The easiest way to know you are blue light toxic is when you piss constantly outside of your water drinking.

WHY?

Vasopressin (AVP) is released after every type of brain injury. Blue light causes graduated brain injury as my slide shows. 1.0 is maximum injury. 0 would be no injury. Note that anytime blue light does not have its protective frequencies, it is TOXIC.

## BLUE LIGHT HAZARD CORRECTION FACTORS

COVALENT BOND IS WEAK SO THIS GIVES WIDE SWINGS IN HORMONE PANELS BECAUSE OF BLH RANGE	400	0.100	ROS/BLH?  <b>BLUE</b>
	405	0.200	
	410	0.400	
	415	0.800	
420	0.900		 <b>GREEN</b>
425	0.950		
430	0.980		
435	1.000		
440	1.000		
445	0.970		
450	0.940		
455	0.900		
460	0.800		
465	0.700		
470	0.620		
475	0.550		
480	0.450		
485	0.400		
nm		B(λ)	

**FOOD GURU FAIL: SKIN IS LARGEST ORGAN IN THE BODY**  
**OOOPS!**

## Bright light alters metabolism

Date: May 18, 2016

Source: Northwestern University

**Summary:** Exposure to bright light alters your metabolism, reports a new study. Scientists found bright light exposure increased insulin resistance compared to dim light exposure in both the morning and the evening. In the evening, bright light also caused higher peak glucose (blood sugar) levels. Over time, excess blood glucose can result in increased body fat, weight gain and a higher risk for diabetes.

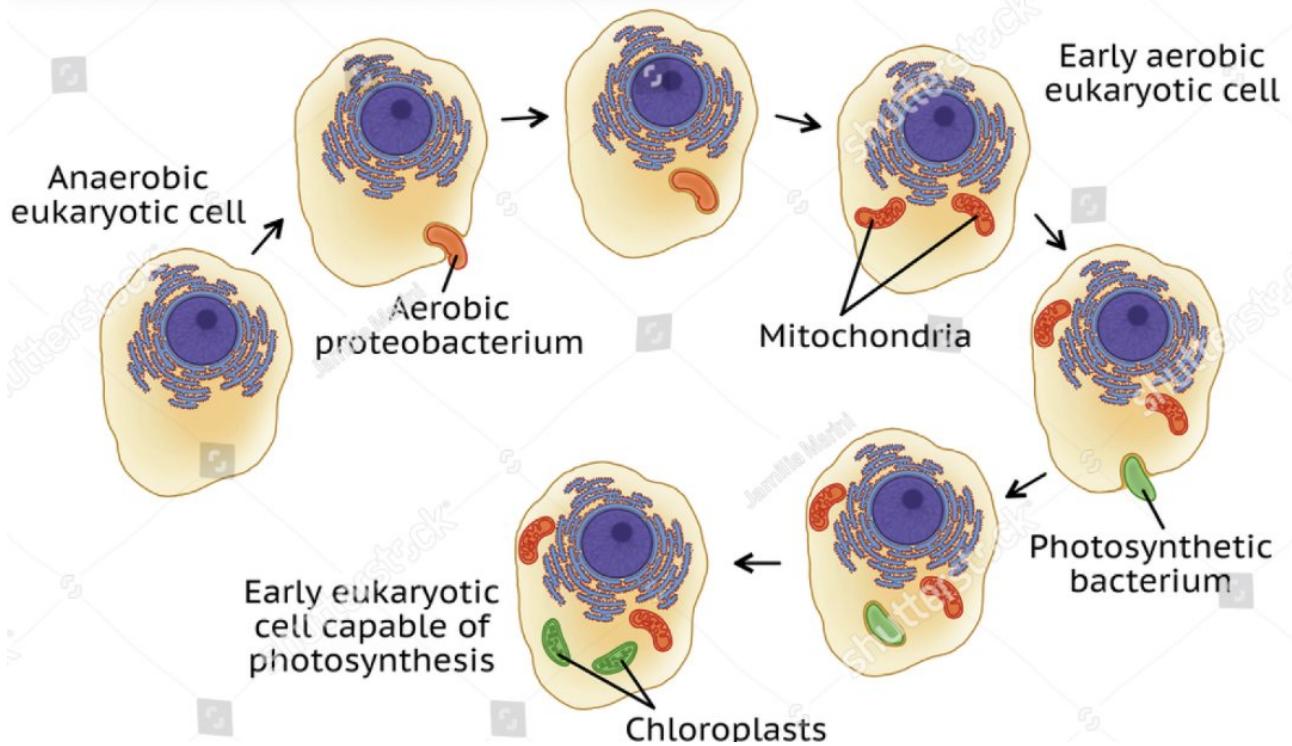
18. Information Transfer: Biophotons and solitons encode information. Biophotons, with their coherence ( $\text{Ho}$ ), signal metabolic state across the cell, while solitons transmit localized energy packets, coordinating processes like protein folding or membrane dynamics. This is how light can create prions and protein misfolding in neurodegeneration.

Tying to Bacterial vs. Archaeal Water Production My previous discussion on water production is relevant here for endosymbiosis: Bacteria: Aerobic bacteria produce more water via  $\text{O}_2$  reduction (e.g., 12  $\text{H}_2\text{O}$  per glucose in the ETC). This water, potentially DDW, enhances aquaphotonic oscillations and DCE activity, amplifying biophoton generation from ZPE. More water might mean stronger soliton formation, as vibrations propagate through a larger structured water network. This energy likely helped fusion.

Archaea: Archaea (e.g., methanogens) produce less water (e.g., 2  $\text{H}_2\text{O}$  per  $\text{CO}_2$ ). With less water, their DCE and ZPE utilization might be weaker, potentially limiting soliton and biophoton signaling. However, extremophile Archea might compensate with unique lipids or proteins that enhance vibrational coherence. This is why the mitochondrial backbone is mostly bacterial with Archeal components.

picture visualizing endosymbiosis - Bing images - details

## IA AND CHLOROPLASTS



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