



QUANTUM PHYSIOLOGY™

IMAGINATION

IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE. KNOWLEDGE IS LIMITED. IMAGINATION ENCLOSES.

Quantum Physiology™

We Are But Dust

A Different Model based on Quantum Physics

Kraskin Invitational Skeffington Symposium

January 18, 2026

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Yorktown, Virginia

guhl.vision

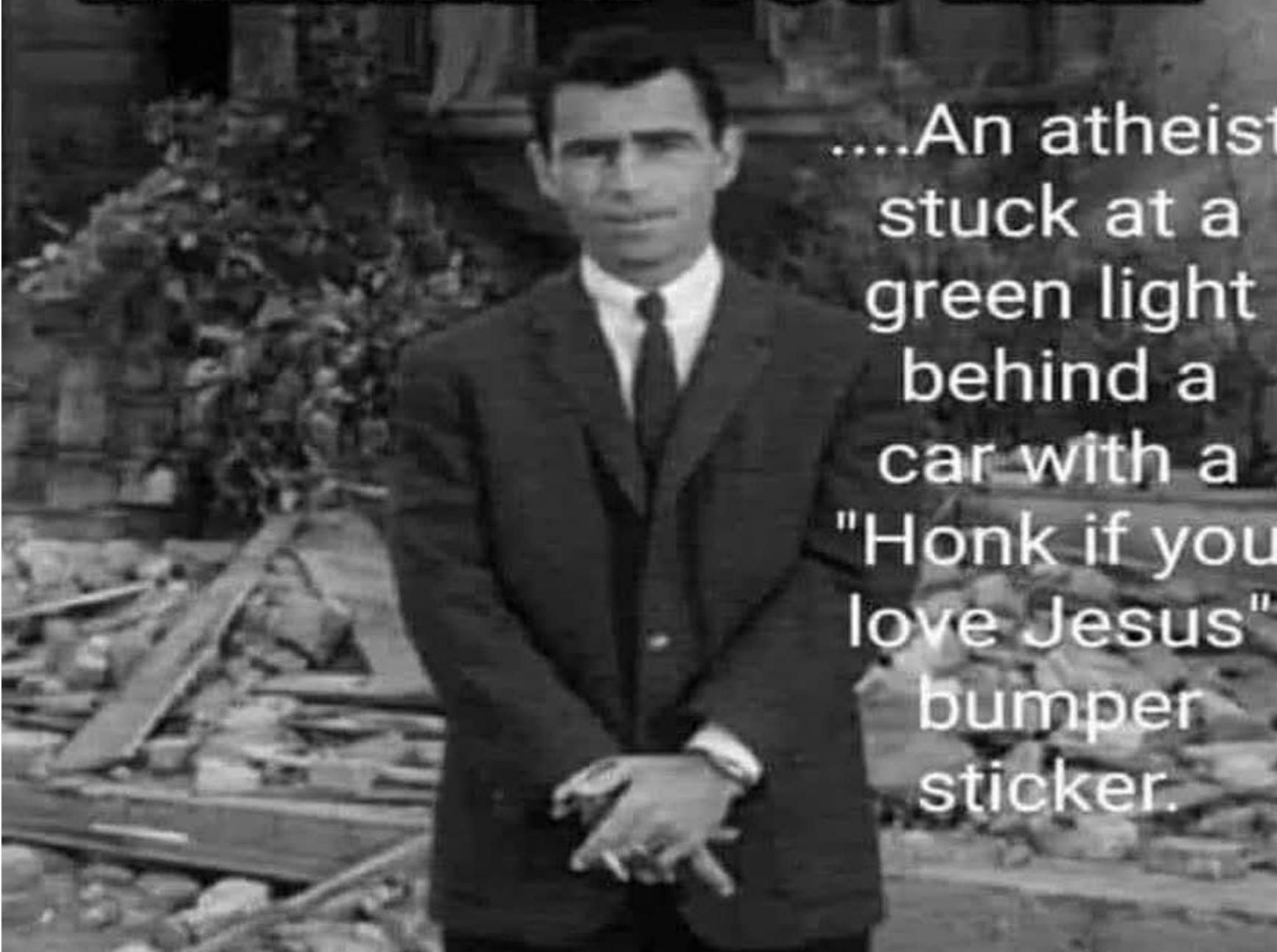
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No Disclosures



$$E=mc^2$$

IMAGINE IF YOU WILL



....An atheist
stuck at a
green light
behind a
car with a
"Honk if you
love Jesus"
bumper
sticker.

Objectives and Topics of the Quantum Model

Objectives/Provocations

- Quantum Underpinnings
- Who We Are – Classical vs Quantum Constructs of Anatomy and Physiology
- We See What We See – Is That All There Is?
- What is Reality and Existence. Expanding our Sensory Limited Viewpoint.

Topics

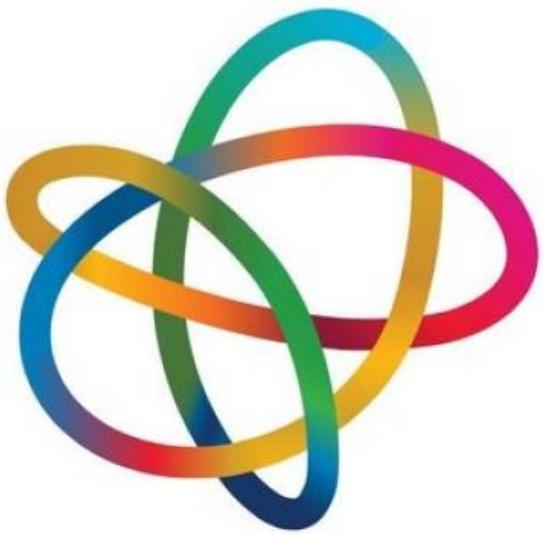
- Quantum Theory & Principles
- Frequencies – Visible & Historic
- Energy Medicine-Holistic Models
- Biophotons-We're Brighter than We Think
- Oculomics –The Eye as a Biomarker
- NeuroPhotonics-Retina/Body Connection
- A Fast Non-Neurological Pathway
- Visualizing Quantum Physiology
- Quantum Existentialism

Most Profound Discovery in History

- Discovery of Fire?
- $E=mc^2$
- Matter becomes Energy
- Reversible Equation
- Energy becomes Matter

Quantum- the Underpinnings of Physiology

2025 was the UN's International Year of Quantum



INTERNATIONAL YEAR OF
**Quantum Science
and Technology**

Einsteinian Viewpoint vs
Traditional Newtonian
perspective on how we
see and how the visual
system operates from a
Quantum Standpoint.

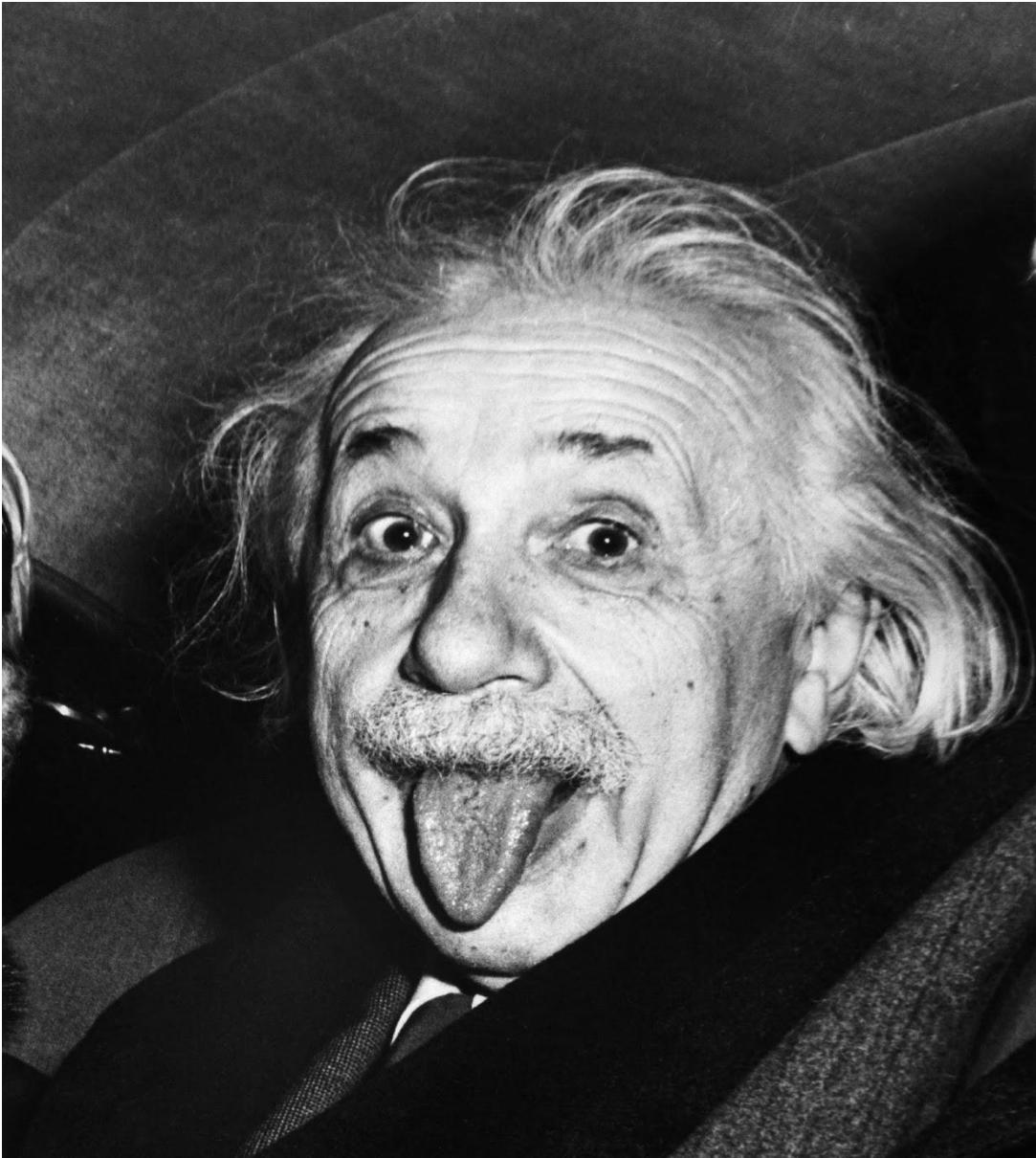
Newton Concepts vs Einstein Concepts

- Retinal Receptor Biochemistry
- Positive & Negative Charge
- Membrane & Molecule Action
- Neural Transmission
- Cellular Receptor Sites
- Drug/Biochemical Reactions
- Energetic Interplay on Atoms
- Subatomic Particles
- Quantum Mechanics
- Energy & Matter Conversion
- Probabilities
- Energy Flow and Unification

Limitations in Our Standard View of Sensory Input

- Traditionally we operate from the viewpoint of Classical Physics
- Plus/Minus Charge, Cell Membrane Potentials, Biochemical Processes
- Einsteinian Quantum Physics, 100 years ago-Subatomic, Energy Flow
- Just as valid but not widely applied.
- Hard to Relate, Not experiential
- Foundational underpinnings of vision and other functions
- Limited by receptors, Including retinal, We can't experience 5G for example
- We operate from 5 major senses, 3D physical view as we see it

Disclaimer, I am Not a Quantum Physicist.



Quantum Theory

- Speed of Light is fixed (=186,000 miles/sec or about 300 million meters/sec).
- Yet is it relative, a paradox?
- Moving train with headlights?
- If it had parallel mirrors?
- Resolved with time being the relative entity.
- GPS uses Satellite in space moving at high speed, which slows its time
 - 36 nanoseconds/day. 1 nanosecond = 30 cm. in position or one foot.
- At Speed of light, time stops, space compresses yet expands laterally to infinity.

Family of Subatomic Entities

- Components Composed of Leptons, Quarks or Hadrons > Fermions & Bosons
 - Various flavors: Top, Bottom, Up, Down, Strange, Charm, Anti-Quarks.
 - Defined by; Charge, Mass, Spin, and Color.
 - Quarks spontaneously appear and disappear, changing from energy to matter.
 - There is a conservation of mass and energy respecting $E=mc^2$, the bridge!
- Fermions–3 Quarks. Half Integer spin ($1/2+1/2+1/2=1.5$) - Constitutes Matter
 - Baryons: ie: Neutrons and Protons, etc.
 - Only 1% of the Proton is composed of Fermion Quarks, The difference is Force Energy.
- Bosons – 2 Quarks paired. Integer spin ($1/2+1/2=1$)- Carriers of Forces
 - Gluons -Strong force carriers binding subatomics together and contributing to mass.
 - Mesons – Unstable and decay into electrons, neutrinos or photons - releasing energy.
 - Photons- Massless Carrier of electromagnetic radiation
 - Higgs - Endows mass to subatomics. Permeates throughout space –Decays to Quarks

Standard Model of Elementary Particles

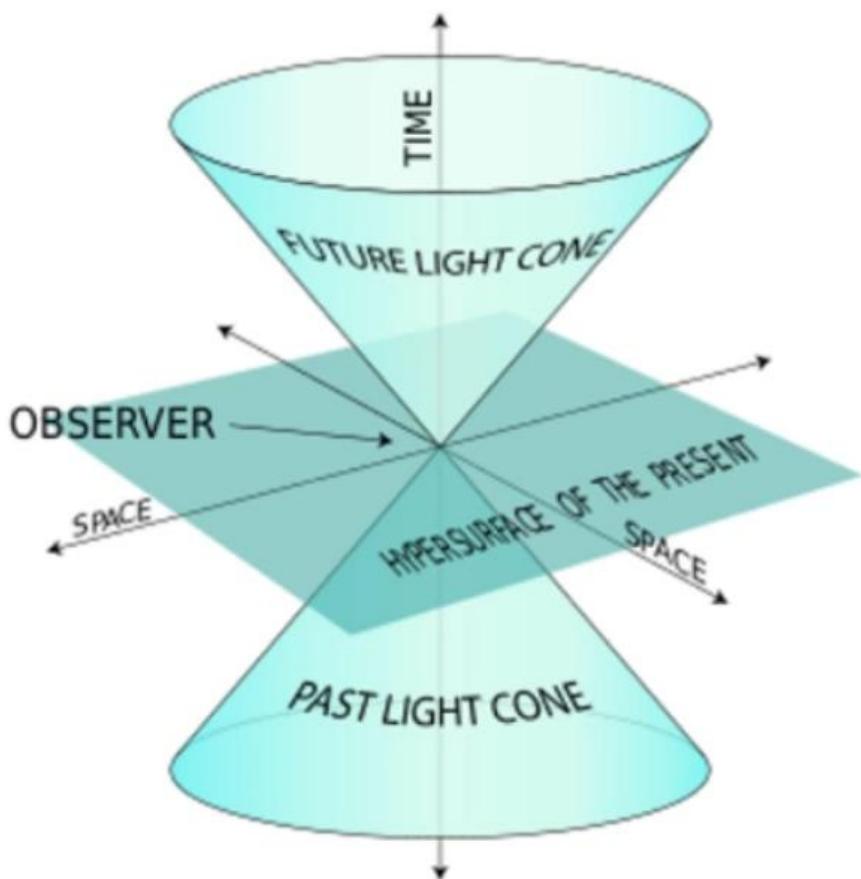
three generations of matter (fermions)				interactions / force carriers (bosons)	
I		II		III	
mass charge spin	$\approx 2.2 \text{ MeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$ u up	$\approx 1.28 \text{ GeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$ c charm	$\approx 173.1 \text{ GeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$ t top	0 0 1 g gluon	$\approx 124.97 \text{ GeV}/c^2$ 0 0 H higgs
QUARKS	$\approx 4.7 \text{ MeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$ d down	$\approx 96 \text{ MeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$ s strange	$\approx 4.18 \text{ GeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$ b bottom	0 0 1 γ photon	SCALAR BOSONS
LEPTONS	$\approx 0.531 \text{ MeV}/c^2$ -1 $\frac{1}{2}$ e electron	$\approx 105.66 \text{ MeV}/c^2$ -1 $\frac{1}{2}$ μ muon	$\approx 1.7768 \text{ GeV}/c^2$ -1 $\frac{1}{2}$ τ tau	$\approx 91.19 \text{ GeV}/c^2$ 0 1 Z Z boson	
GAUGE BOSONS	$< 1.0 \text{ eV}/c^2$ 0 $\frac{1}{2}$ νe electron neutrino	$< 0.17 \text{ MeV}/c^2$ 0 $\frac{1}{2}$ νμ muon neutrino	$< 18.2 \text{ MeV}/c^2$ 0 $\frac{1}{2}$ ντ tau neutrino	$\approx 80.39 \text{ GeV}/c^2$ ± 1 1 W W boson	
VECTOR BOSONS					

Quantum Principles

- Heisenberg Uncertainty Principle
 - The more exact you know the energy/velocity of a wave, the less certain you are of its position.
- Schrodinger Equation
 - Wavelike property of matter is based on probability.
 - Observation changes the outcome.
- Duality of Photons
 - They have both wave and particle properties
 - Double slit experiment. It can be a particle or a wave but not both.
- Bose-Einstein Condensate
 - A lower temperature reduces vibration, ie: its kinetic energy & a phase change occurs.
 - With cooling the vibrational energy of atoms there is unification of energy into a mass.
 - 5th Phase of matter.

Schrödinger's Supermarket!





Visualization/Quantum

Particulate/Language/Newtonian

Visual Memory/Quantum

Cosmic scale of expanding universe in all directions = $10^{25} m$

Size of human cell = $10^{-5} m$ which is the middle of both space and time of the universe

Planck scale = subatomic scale = $10^{-35} m$

The Visible Spectrum & Ambient Frequencies

- Electromagnetic Frequency Spectrum - 1 Hz- 10^{25} Hz
- Radio Waves 10^8 Hz, Microwave: 10^9 - 10^{11} Hz, Gamma Rays 10^{20} Hz
- Visible Spectrum is 400 (<UV) to 700 (>IR) nanometers or 10^{14} Hz
- Solfeggio Frequencies –174-963. Highest is 963 Hz (Crown Chakra)
- Schumann Frequency – 7.83 Hz+ Earth Resonance Frequencies
- Cosmic Microwave – Quantum Energy Field? Higgs Field
 - Constant background signal throughout the universe
 - 2.45 GHz. (10^9)
- Are We in a Black Hole? (NASA March 19, 2025).

Vibrational Characteristics

- Resonance Frequency: Tendency to oscillate or vibrate at a maximum amplitude at certain frequencies
- Occurs over distances: dual tuning forks.
- Quantum Entanglement: Things interact at a distance.



Historical Energetics

- In Eye Care we use VEP, ERG, EOGs to measure various Visual Functions
- Other Medical Uses- EKG, EEG, EMG, Etc.
- Pfizer Research into Chinese Medicines and herbs
- Names of energy flows defined in many cultures.
 - Prana , Qi, Chi, Bios, Holy Spirit
- Energetic/Auric field - Kirlian Photography
- Meridians of Energy – Acupuncture
- Vortices of Energy – Chakra
- Are the subtle energetics of the body related to Quarks-the gateway?

Quantum Conundrum

- This parallel science of a subatomic level that is real but underutilized.
- Interplays with traditional views on how the visual system functions.
- The Physics, Anatomy, and Physiology are in place and well documented.
- IT field has embraced it with Quantum Computers.
- The Quantum science ties into many other approaches,
just not widely used in healthcare



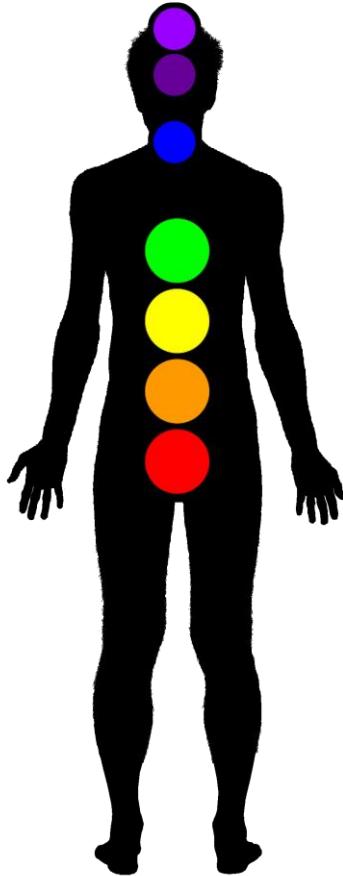
Energy Medicine

- Uses various energetic modalities to effect biological change
- Standard Medical Procedures – Ionizing and non-Ionizing energies
- Magnetic and Light Treatments- SAD, Transcranial, Ocular, Dermal
- Retinal Photo biomodulation – Optometric Syntonic Phototherapy
- Iridology
- Homeopathy
- Acupuncture
- Reiki, Healing Touch, Qigong, Eden Energy Medicine and Psychology
- Eastern Practices –Aryuvedic, Chinese/Oriental Medicine, Tai Chi

Kirlian Photograph – Conversion to Visible Light



Chakras as Energy Connectors

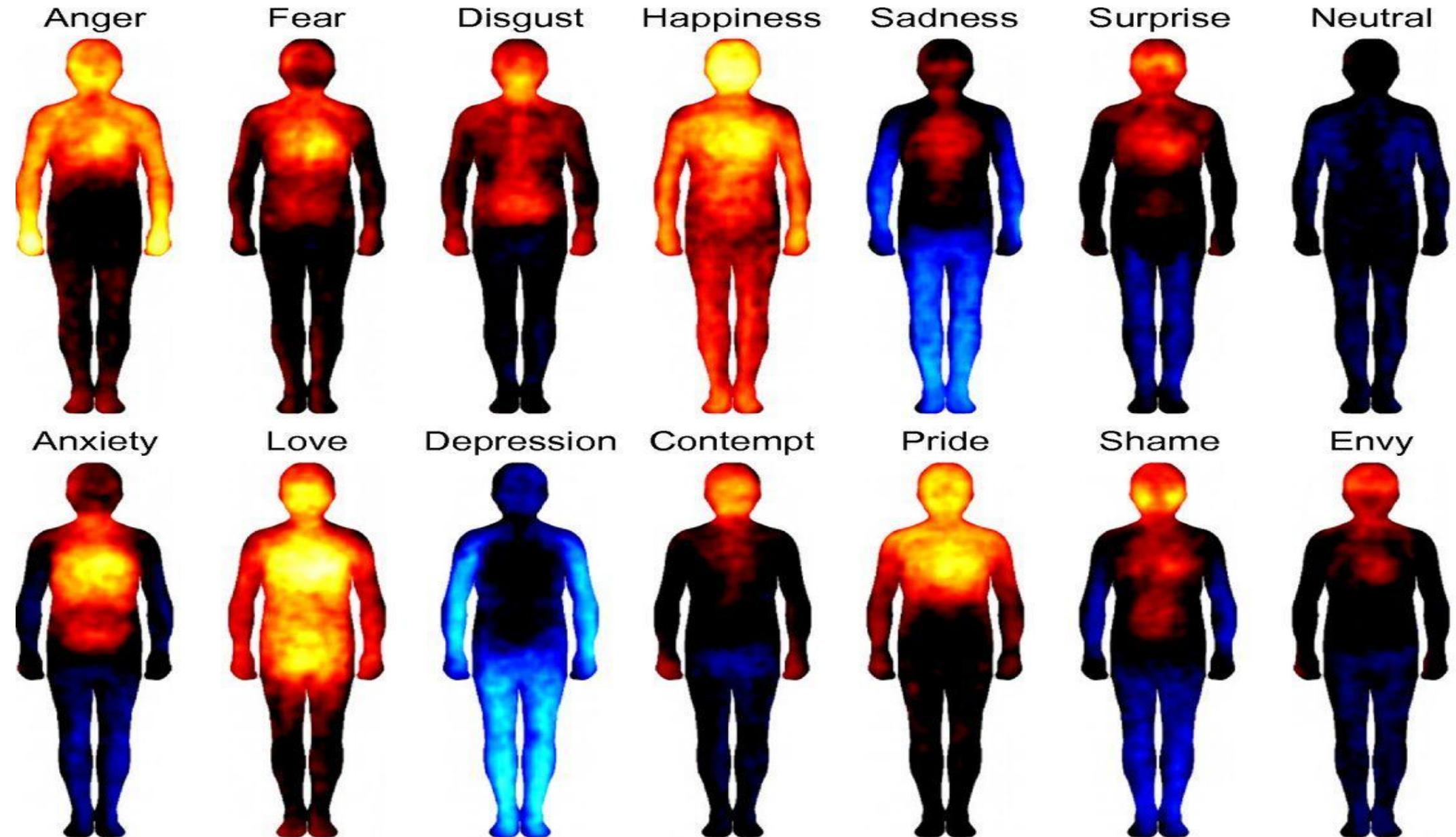


CHAKRA HEALING CHART
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Name Number & Symbol	Colour Sanskrit name & Location	Element	Rights & Basic Issues	Gemstones	Deficient	Treat with	Excessive	Treat with	Balanced
7 Crown 	White/Violet Sahasrara Top of Head	Thought	'To know' Cognition Self-knowledge	Clear Quartz Apophilite Selenite Amethyst	Indecisive, no creativeness, no joy of life, melancholy.	clear,white	Frustrated, manic depressive, migraines, unrealized power	red	Alchemist, no fear of death, miracle worker, open to the Divine.
6 Third Eye 	Indigo Ajna Above/between Eyebrows	Light	'To see' Intuition Self-reflection	Amethyst Fluorite Sugilite Charoite	Undisciplined, meek, afraid of success, oversensitive, meek, schizophrenic.	Purple	Egotistical, arrogant, manipulative,dogmatic, talks down to others.	orange	Non material, no fear, charismatic, total vision, master of one self, telepathy
5 Throat 	Blue Vishuddha Centre Base of Neck	Sound	'To speak' Communication Self-expression	Sodalite Lapis, Azurite Blue Lace Agate Kunzite	Inconsistent, unable to express thoughts, cowardice, unreliable, manipulative.	blue	Self righteous, talks excessively, arrogant, will force opinions on others.	red	Good speaker, artistic, centered, lives in the now, easily experience divine energy.
4 Heart 	Green/Pink Anahata Centre of Chest	Air	'To love' Love Self-acceptance	Watermelon Tourmaline, Rose Quartz Rhodonite	Paranoia, indecisive, feels unloved, sorry for oneself, afraid of letting go .	green,pink	Very critical, mood swings, possessiveness, demanding, manic depressive, tense.	green,pink	Unconditional love, emotionally balanced, empathetic, compassionate.
3 Solar Plexus 	Yellow Manipura Below sternum & above navel	Fire	'To act' Power Self-definition	Citrine, Golden calcite Golden Topaz	Lack of personal energy, low esteem, self-conscious, confusion, insecurity.	yellow	Workaholic, resents authority, superiority / inferiority complex, too intellectual.	violet	Joyful, good self esteem, strong personal power, relaxed, multi skilled.
2 Sacral 	Orange Svadhishthana Between navel & genitals	Water	'To feel' Sexuality Self-gratification	Carnelian, Rutilated Quartz, Amber, Citrine	Resentful, very shy, freezes with fear, sexual guilt, buries emotions, un-trusting.	orange	Aggressive, see others as sex objects, volatile emotions, self serving, manipulative .	purple	Creative, friendly, attuned to feelings, intuitive, concern for others .
1 Root 	Red Muladhara Base of Spine	Earth	'To be here' Survival Self-preservation	Hematite, Black Tourmaline, Red Jasper, Garnet, Ruby, Bloodstone	Lack self-esteem, head in the clouds. procrastination, low sex drive, feel insecure.	red	Egotistic, selfish, materialistic, sexual focus is solely genital, dominating.	blue	Grounded, master of one self, can manifest abundance, limitless energy.

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Bodily Maps of Emotions



15
10
5
0
-5
-10
-15



Visual Cortex Response on an fMRI to Both Retinal & to AP Point Stimulation

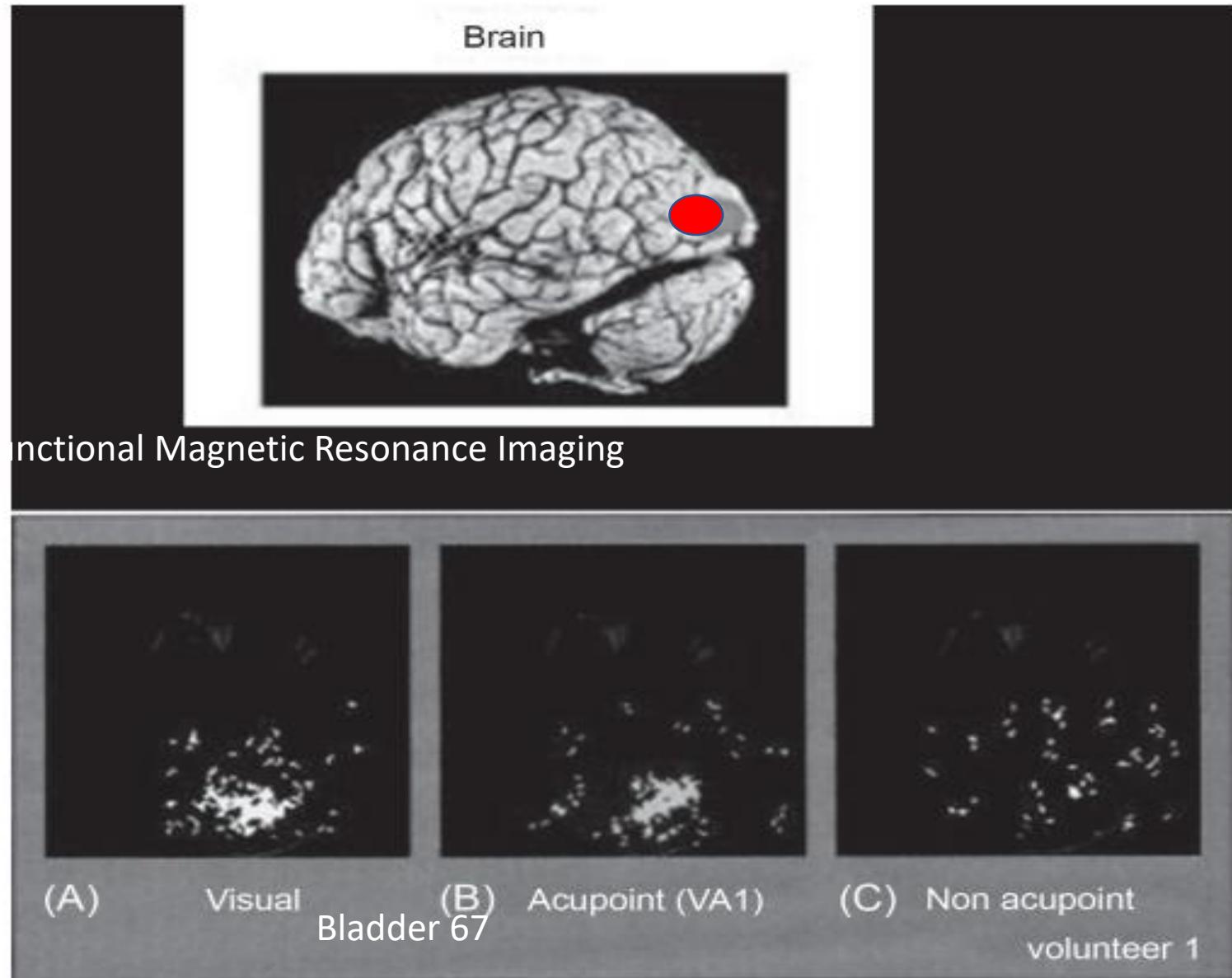
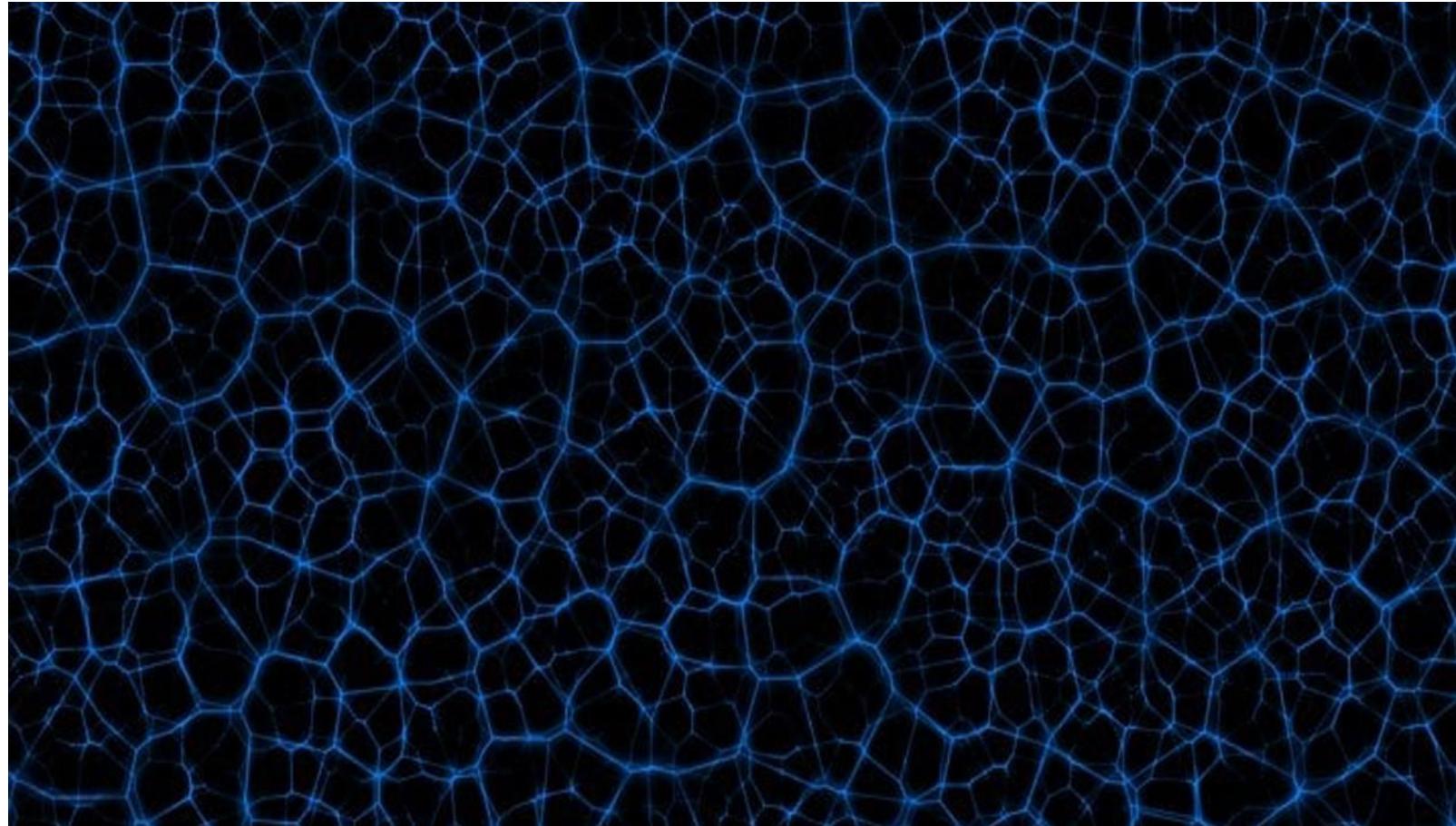


Figure 14.9 Nonacupoint stimulation (control) in comparison with visual and acupoint stimulation. The activation maps of the visual cortex (the area in red in upper figure) resulting from visual stimulation of the eye (A), acupuncture stimulation at VA1 (B), and nonacupoint stimulation (C), respectively (volunteer 1).

The Body Functions as Both a Receiver and Emitter of Light - Biophotons



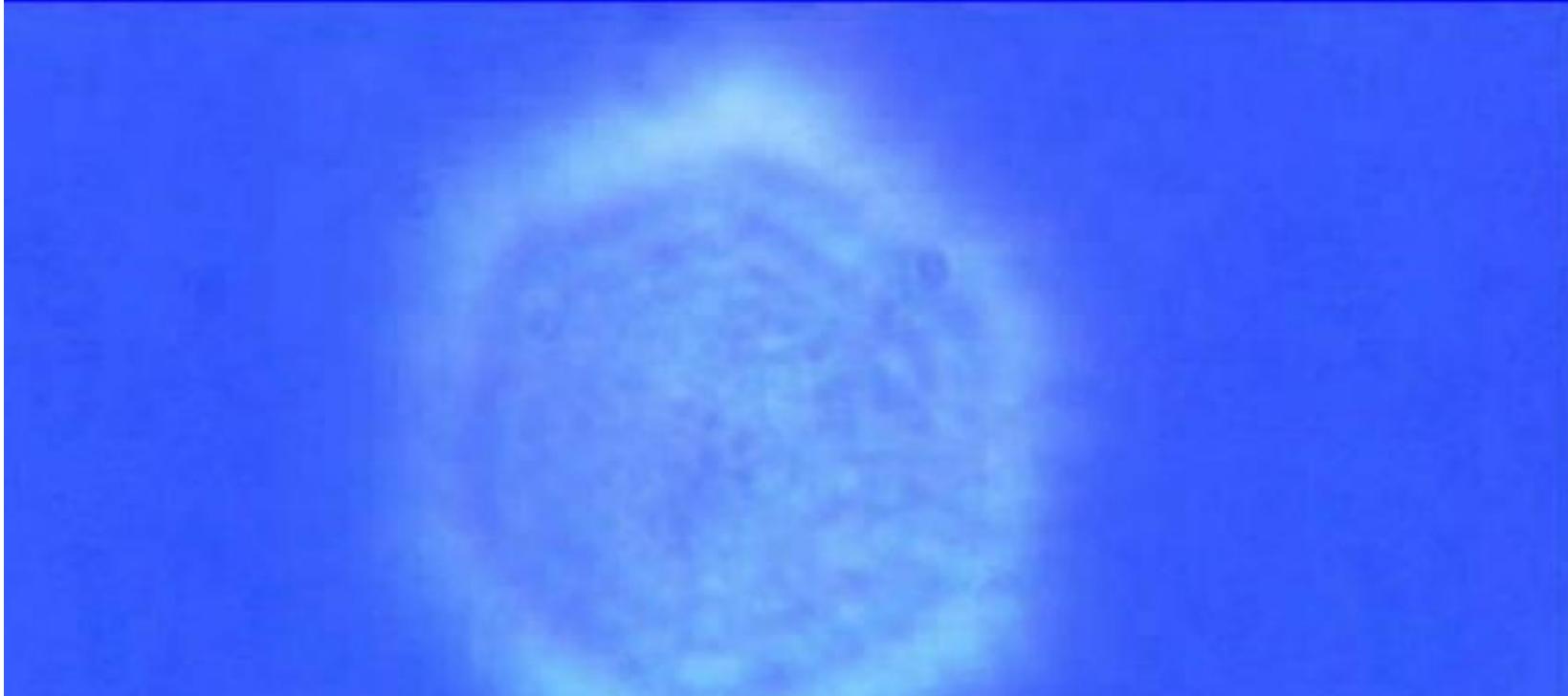


Photo - 8

**As we bring the Bio-Photon to its largest state ...
we can see the many layers of hexagonal shapes
within ... and a luminous aura between each layer**

Exclusion Zone Water(EZ) – Light Interaction

A fourth phase of water - a gel, between solid and liquid at room temperature.

EZ is structurally: H_3O_2 , Stacked hexagonal configuration

Regular water combined with hydrophilic materials, driven by light forms a separation layer.

Many Unique properties including structural strength.

Becomes negatively electrically charged like a battery.

Creates water flow, repelling and separating positive charged impurities

Potential for Power Generation?

Potential for Water Purification and Pumping?

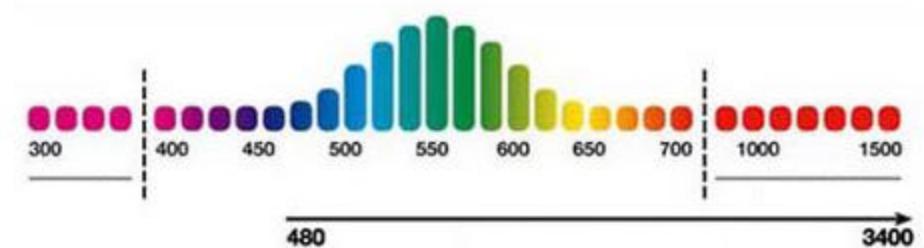
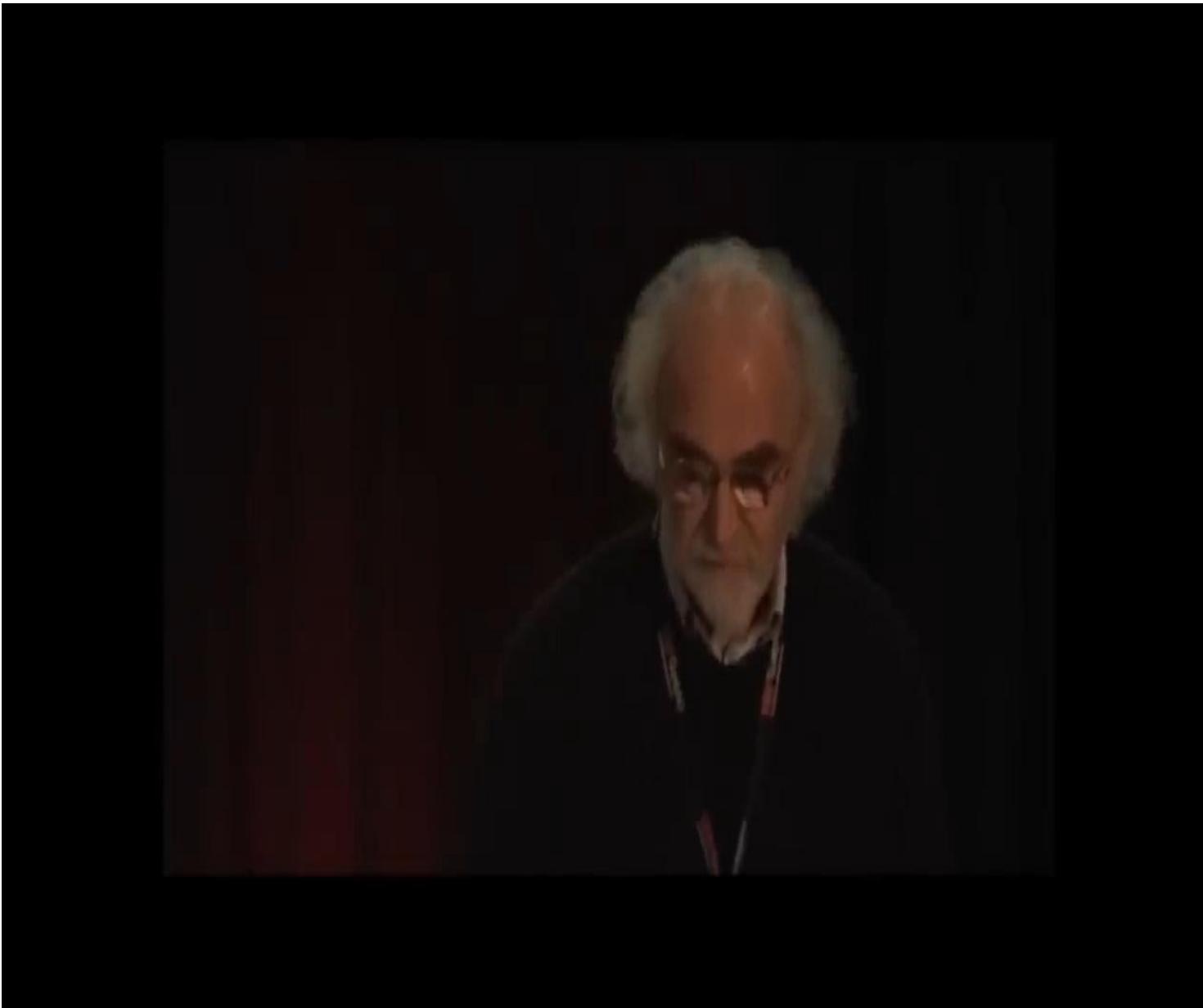
“Water moves by itself like there is a pump, and it is driven by light! Light of the IR spectrum creates flow through EZ.” (Dr. Gerald Pollack)

A mechanism for blood pumping? Does ambient light creates flow in capillaries?

Embryo has moving blood without heart beat,

Do coils of fascia act as an electromagnet pushing blood activated by light.

How Does Syntonics Affect the hydrophilic, vessels and tissues of our body?



``Water moves by itself like there is a pump, and it is driven by light!
The IR spectrum creates EZ.``

VIDEO: Ref. Dr. Gerald Pollack,
Professor of Bioengineering, University
of Washington

Water Responses To Thoughts

Water reacts to love



"Brace yourself for

and it is beautiful

Homeopathy

- Like cures like
- Energetic amplification caused by Potentization.
- Energetic equivalent to vaccines?

Oculomics, Use of the Eye as a Biomarker

- Associations of ophthalmic biomarkers and systemic health.
- Looks for correlations in:
 - Diabetes
 - Hypertension
 - Stroke
 - Coronary disease
 - Inflammatory, metabolic and renal disease
- Non-invasive, low risk and accessible at low cost
- Funded by NIH

Iris Function as a Photoreceptor and Biomarker

- Iris as a Genetic Blueprint and Sample of Connective Tissue
- Predispositions, Personalities, and Genetics-Iridology Mapping
- The Iris has Somatosensory Communication
 - CNS/ANS Neurology via 5th CN via TBSC and Spinal Column.
- Iridology as a Comprehensive Compendium of Us with Valid Research.
- Is there an Energetic Component as well?
- Iris is Photosensitive and Reactive to light.
 - Melanopsin mediated, similar to ipRGC.
 - The Components and the Research Evidence are there.
 - Embryology, Anatomy, Physiology and Neurology.

Neurophotonics – Retinal Connections

- The use of neurophotonics to influence neuromodulation via the retina.
- Use of lenses, tints, and occlusion to moderate retinal stimulation.
- Addresses the brainstem and other subcortical reactions as well as chemical circuitry.
- Topographical representation of the brain on the retina.
- Neurotransmitters are expressed and excited or inhibited by retinal stimulation:
 - GABA, Acetylcholine, Noradrenaline, Norepinephrine, Dopamine, Serotonin, Glutamate, Melatonin, Glycine, Histamine.
- Control of retinal stimulation by moderation of light input or therapeutic eyeglasses can be applied to a wide range of medical problems

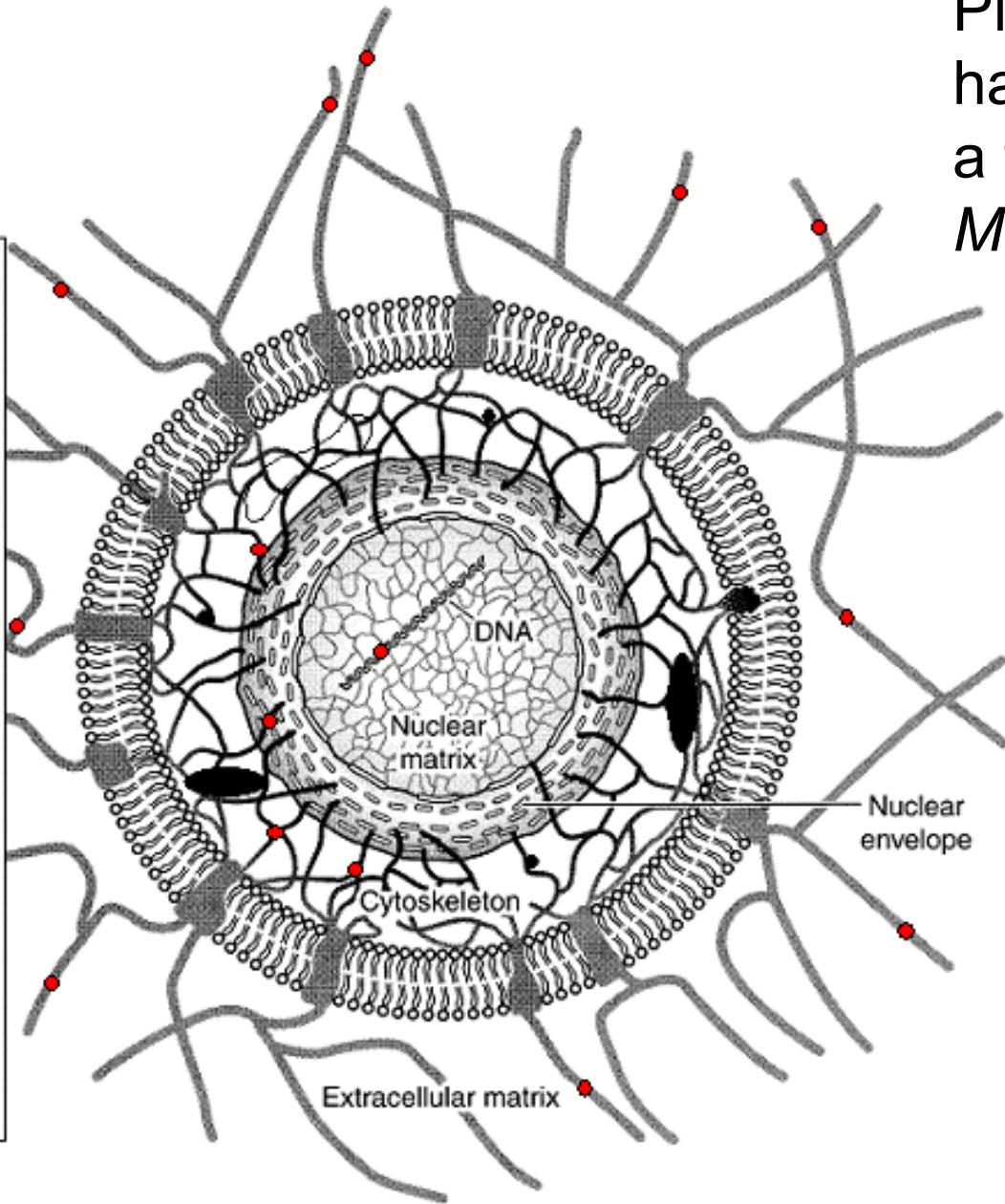
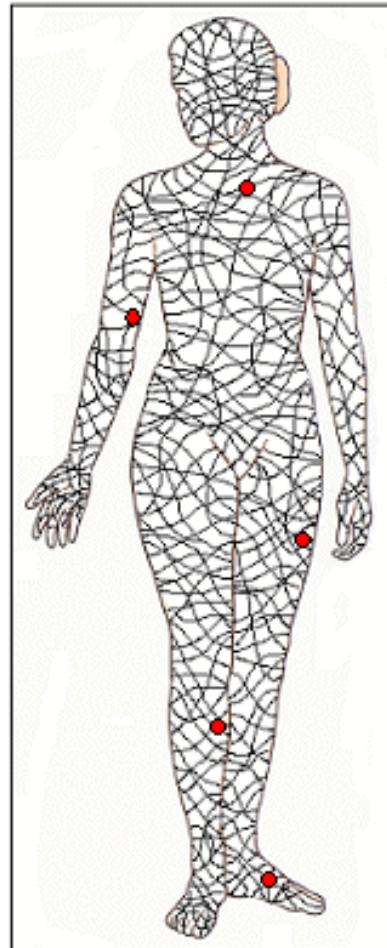


How Does Vision Function Thru an Inverted Retina

- Vision goes through a backwards retina, it defies functional logic
- Photons have to travel though the complex neural and supportive layers to hit a photoreceptor.
- Imagine a Flat Screen TV with the wires in front of the pixels.
- Muller cells –
 - As a connective tissue, it supports the integrity of the retina
 - Neuroglia-supports metabolism and nutrition to neural cells
- Muller Cells act as light pipes: fiber optics funneling photons 1:1 to cones and multiple rod receptors.

Retinal Cells & Collagen is a Semi-Conductor

- Muller cells are a connective tissue/fascia membrane
- Fascia is a primordial regulatory system moves energy and information rapidly. (Dr. Albert Szent Gyorgyi)
- Integrin molecules link intra and extracellular connective tissue.
- All cells communicate within the body rapidly, with biophotons, using fascia, at a much faster speed than is neurologically possible.
- This *Living Matrix* allows “Light in the eyes to reach every part of the body” (Dr. James Oschman).
- The Iris contains of a lot of connective tissue, is it a part of this matrix?



Pienta KJ, Coffey DS, 1991. Cellular harmonic information transfer through a tissue tensegrity-matrix system. *Medical Hypotheses* 34:88-95.

Cells and intracellular elements are capable of vibrating in a dynamic manner with complex harmonics, the frequency of which can now be measured and analyzed in a quantitative manner.

...a tissue-tensegrity matrix system...is poised to couple the biological oscillations of the cell from the peripheral membrane to the DNA...and vice versa

A Fast Non-Neurological Pathway

- Is There an alternative model to how our visual system functions?
- Visual Neurological speed:
 - ERG: Retinal Response-20-50 msec
 - VEP: 100 msec for positive response
 - Central Processing about 300msec
- Neural transmission - 100 m/sec.
- Motor Speed Output
 - Genetic fast twitch fibers
- Response speed mean 231 msec,
- Bob Munden response: 20 msec.



Landmark Paper by Phillip Kurian-Howard University

QBL - Quantum Biological Lab

Journal of Physical Chemistry April 2024, March 2025, Etc.

- **4 Groundbreaking Theories, Experiments, Papers**

- What's Happened – Number of Ops ever – 10^{123}
- How did Life Begin on Earth – Answered
- Quantum Computing @ Room Temperature: IT Field
- Cell to Cell Communication Mechanism in Biology
Non-Neurological
Attaseconds – Entanglement?

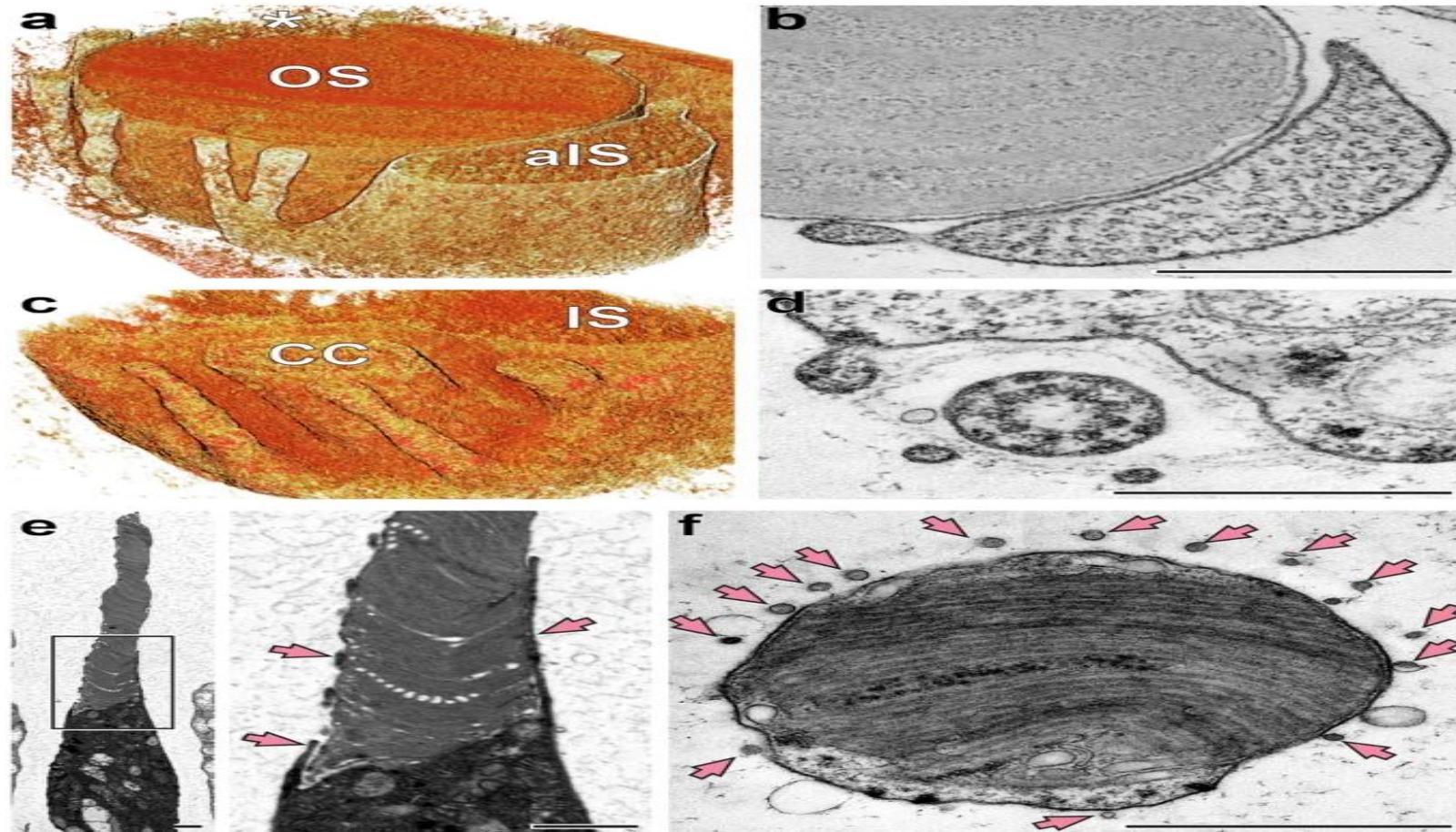
Alternate Light Mediated Non-Visual Pathway

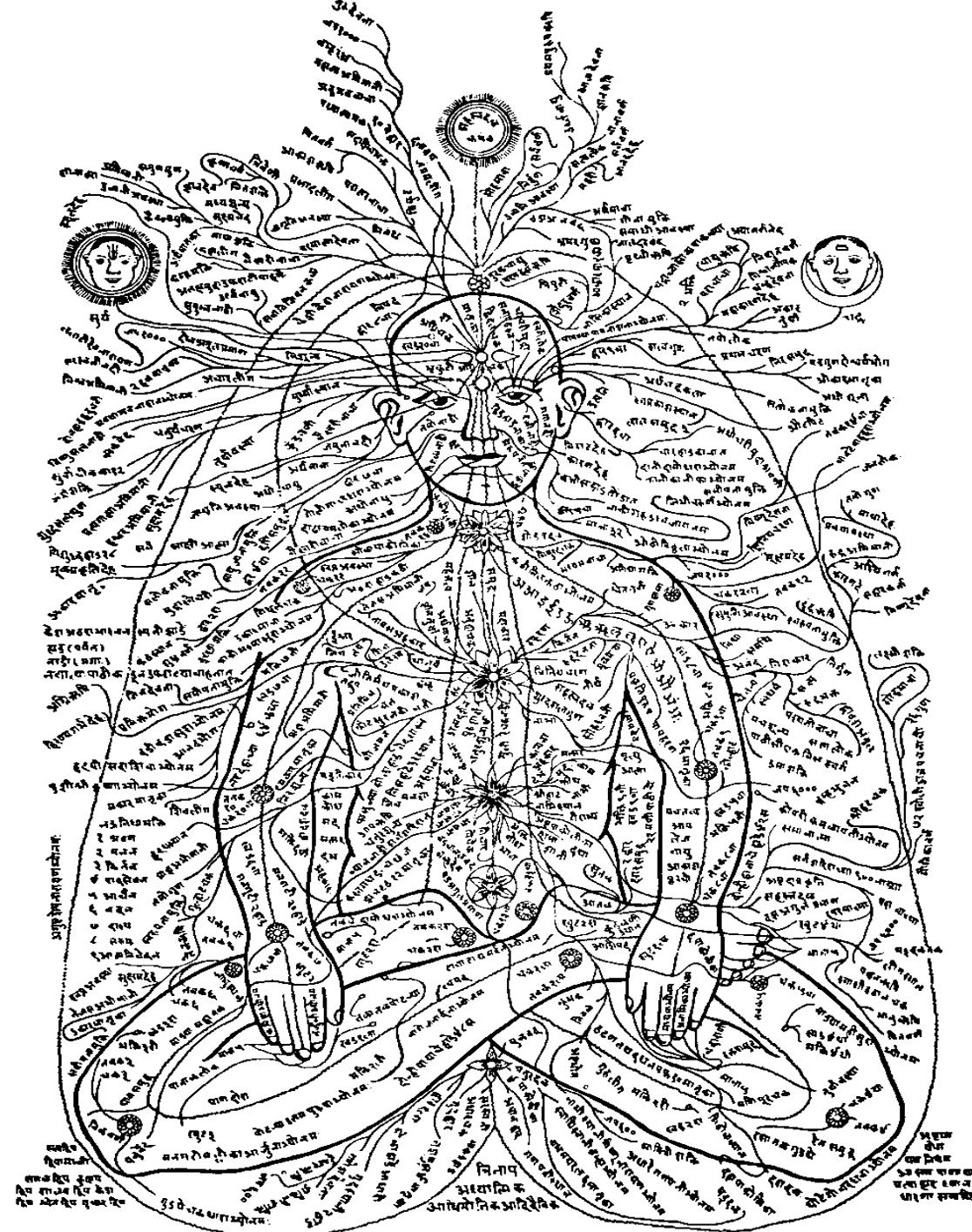
- Single-photon superradiance is a distinctively quantum effect
- Demonstration of single-photon superradiance in cytoskeletal protein fibers at thermal equilibrium (Room Temperature).
- In the brain and possibly the visual system.
- Quantum superradiance in cytoskeletal filaments has the profound consequence that all eukaryotic organisms can use these quantum signals to process information.
- More than a billion times faster than the computational capacity expected of a single neuron, Attaseconds
- *SCIENCE ADVANCES* 28 Mar 2025 Vol 11, Issue 13 PHILIP KURIAN HOWARD UNIV.

A Parallel Optical Network based on Tryptophan

- Kurian continues: Quantum superradiance in cytoskeletal filaments has the profound consequence that all eukaryotic organisms can use these quantum signals to process information.
- The key molecule enabling these remarkable properties is tryptophan, an amino acid found in many proteins that has fluorescent properties, absorbing ultraviolet light then re-emits it at a longer wavelength.
- This Amino Acid Tryptophan is ubiquitous and converts UV to a lower energy level.
- Some photoreceptors have large networks of tryptophan that also form in microtubules within cells, and also amyloid fibrils, transmembrane receptors, viral capsids, cilia, centrioles, neurons, and other cellular complexes.
- This also has implications for the development of quantum computers that can operate at room temperature.

Accessory Inner Segments/Microtubules





Energy Interaction Demonstration

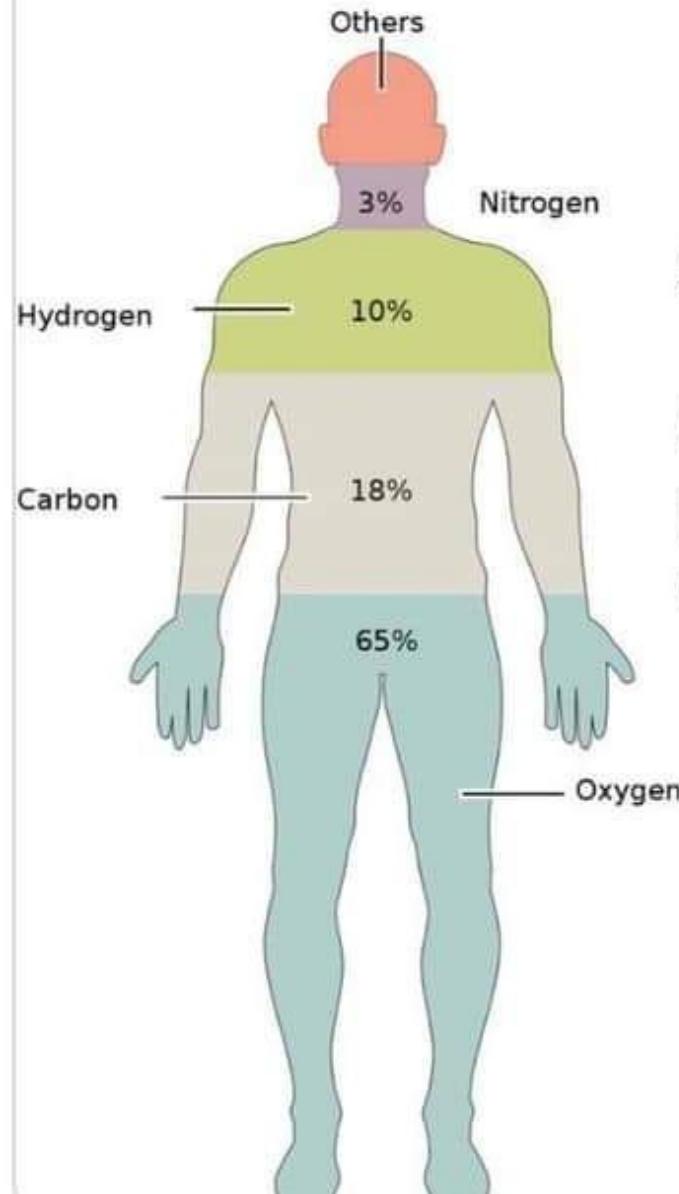
Quantum Physiology-an Energetic Perspective

- Thoughts and Consciousness are Determinants of Physical Reality.
- Quantum applies to Sight, not just Classic/Newtonian Physics.
- Quantum deals with Probabilities and Energy/Matter Exchange.
- Bodies are vast reservoirs of materialized kinetic energy.
- Cells have innate intelligence/patterning but not Meta-Cognition.
A single-celled paramecium swims gracefully, avoids predators, finds food, mates, and has sex, all without a single synapse. “Of nerve there is no trace. But the cell framework, the cytoskeleton might serve.” ~ Sir Charles Sherrington, 1951
- Cells emit photons, we are light emitting entities.
- Cells communicate energetically which brings us life and health.
- The unified quantum energy field with conversion to matter with an interaction among people affecting energetic fields & each other.

How Do These Ideas Affect Our Model?

- What are the implications of these ideas?
- What is the value of this approach?
- How do we validate these concepts and gain further understanding as visionaries?
- How do we incorporate this as a functional model into our thinking and care?
- How does a quantum framework tie into our work as vision scientists?
- What do we really see and experience, Is our world a construct we make, like icons on a monitor are not the “Thing”, but are an interface representing a “Thing”.

Astronomical Origin of the Human Body



10% Big Bang (hydrogen)

21% low-mass stars (carbon+nitrogen)

67% high-mass stars (oxygen+calcium+phosphorus+potassium+sulfur+sodium+chlorine+magnesium)

1% exploding white dwarfs
(calcium, sulfur, iron)

<1% merging neutron stars

“This conjecture may stimulate studies on the physical limits of artificial intelligences and the role of life in the evolution of the cosmos.” Kirian

Source of Earth’s Matter is Dust, those elements from the Residue of Decayed Stars –> Stardust

“From dust you came and to dust you will return” Genesis 3:19

Earth’s Energy Ultimately is from The Sun-> A Star

We are Frozen Light - We are the Children of the Stars-We are But Dust.



REMEMBER
U R
DUST

Quantum Physiology™
Invitational Skeffington Symposium
Annual Conference January 2026
Bethesda, MD

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