Increasing Urantia Book Plausibility
Assertions and Associations
Part 2
Scientific - Spiritual Associations
of *The Urantia Book*by
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#### **Abstract**

Part 2 of this paper highlights the increasing believability of *The Urantia Book*, as demonstrated by newly discovered mechanisms of possible **associations** between human physiology and cosmic coherences. Using recent scientific concepts like continuous decoherence/coherence, holographic persistence, the fundamental density and the viscous time theories, the author examines the interplay between electromagnetic energy, physiological functions, and wholistic/cosmic spiritual influences. This study aims to provide a scientific framework to support *The Urantia Book* hypothesis of an interconnectedness between the physical and spiritual realms, giving a skeptical scientist plausible mechanisms for spirit influences and suggests an afterlife mechanism. Hopefully, the plausibility for actual human-spiritual interaction, which results from reading this paper, might entice skeptical scientists discover the book's more meaningful values.

#### Introduction

After discovering the increasing plausibility of scientific assertions, the author applied similar scientific investigations to the relationship between physical realities and spiritual probabilities. Science and spirit have long been solely the subject of either philosophical or theological debate however recent advancements in physics, coherence mechanisms and physiology, offer new insights into how these seemingly disparate realms might interact.

Matter and spirit and the state intervening between them are three interrelated and interassociated levels of the true unity of the real universe. 133:5.9 (1477.4)

This paper, supported by the assertions in *The Urantia Book*, explores the hypothesis that the inter-associations of energy (ranging from low-frequency electromagnetic energy seen as matter, to high-frequency energy seen as light, to very high frequency cosmic energy) can create and sustain stable and enduring patterns when sympathetically, harmonically aligned.

When the energies of the universe are so slowed down that they acquire the requisite degree of motion, then, under favorable conditions, these same energies become mass. 133:5:10

From the top-down perspective, there is a continuum between the quantum realm and the realm of classical physics. At some point, more complex forms lose their quantum properties in a phenomenon called "decoherence." Quantum properties like entanglement disappear, "waveform collapses", and matter becomes measurable. At that point classical matter has emerged from the quantum realm via this constantly occurring decoherence. This implies that energy/matter has an emergent foundation and a coherent destiny.

In classic theories, energy, over time, automatically improves its patterns and stability through involuntary energy tension relieving, increasing entropy, second law of thermodynamics, gradually improving the organization of matter. This includes the information encoded in that matter, second law of information dynamics SLID, the so called thermo-contextual interpretation. There are new theories, the Viscous Time Theory (VTT) which combines these two theories and suggests that the prime driver in these processes is a coherence gradient rather than a thermal gradient. i.e. not "heat flow," but a coherence tension displacement across a spatial region. VTT states that what moves is not thermal energy, but a disturbance in the coherence field, which acts as the informational scaffolding of physical behavior. i.e. heat is a consequence of information divergence. There is also the Fundamental Density Theory (FDT), which simplifies the standard model in a seemingly simple variation to E=mc2 to  $E/m=c^2=(d/t)^2$  where d is the spatial and t is the temporal scale. This "Omnium" ("one") field introduces the concept of a universal field whose different configurations give rise to everything we observe and says that matter emerges as high-density regions and energy manifests as transitions between density states. Another new theory, the Persistence Theory, also posits instantaneous information sharing as the upholder of the scaffolding. All three theories explain the vagaries of QED, like entanglement, without invoking a singularity or an infinity.

In quantum electrodynamics, there are two relevant fields: the electromagnetic field and the field of electrons. Any point in a field influences every other point in that field to varying degrees based on proximity. The electromagnetic field is a vector field for every point in space and time. The excitation quanta of the electromagnetic field are photons. The field of electrons, or electronic field, is a spinor field where vectors of every point in space and time take 720 degrees of rotation to get back where they started from. Electrons are the excitation quanta of this field. Time bound electrons could be thought of as being rotationally, locationally, specific (think ubiety, immanence). Photons function outside of time (think ubiquity, transcendence) and as they are absorbed and reradiated by electrons, they might affect the electron's orientation and patterning (think spiritual influence). (**Ref 104:4.34**)

If, as The Urantia Book implies, there are three energies, spiritual, mindal and material, then the electron field might be thought of as the material, the mindal as the photonic and the spiritual as the cosmic (whole) field, then we are looking for ways in which they can interact, and that interaction is likely only at the quantum level. There may also be three informationally entangled energy continuums, the material, the morontial, and the "more complex" spiritual. To demonstrate particle entanglement in the material world, we must first separate the particles from all other entanglements. This implies an overall entanglement in the material realm. Persistence theory (Ref 151) states that this entanglement is the instantaneous sharing of information about the interconnectedness and mutual interdependence of wave functions as described by the Viscous Time Theory Fourier transform. Coherence between particles is not local. It is topological and mutually sustained by the preservation of shared information about everything else's location and condition. When measurement occurs, entropy is injected at a specific location, and the structure loses the ability to maintain its current state. It is not that a signal is exchanged but rather it is the collapse of the current configuration since it can no longer be maintained materially and temporally. Because of this sense of relatedness, the shared information gradient drives all related energies to the next quasi stable configuration. The same information gradient entanglement may be true in the morontia, where photons, which may be light slowed to behave like matter, interrelate more cosmically and eternally. This likely also persists at the spirit level where all information relatedness is becoming truly entangled, and eternal.

The attached paper supported by over 150 Urantia Book quotes and over 175 external research articles, explores 40 physiological mechanisms where the converse of decoherence (coherence) might be taking place in the human body. Coherences between the mechanical, optical and electromagnetic realms which demonstrate emotionally stabilizing, eternally enduring neurological processes are explored.

## Part 2 Hypothesis

While The Urantia Book is purported to be primarily a spiritual text, the author proposes that it also offers scientific mechanisms for spiritual (cosmic/eternal) to material (local/temporal) associations and interactions. Also, while *The Urantia* Book says that man can never ... "discern spiritual reality through the examination of physical causes and effects." (101:10.1) The author proposes that we may be able to discern some of the influence spiritual reality has on our physiologies. If the electromagnetic energies, range from the stationary isle of paradise (like a black hole), with "perfect pattern" (i.e. stationary matter - zero vibrational frequency) through the low frequency motions of matter (with non-volitional vibrating energy patterns) through optical frequencies (which can have volitionally organized vibrational patterns, up to the higher frequencies (which can harmonize and resonate with eternally enduring cosmic energy patterns) we might see some spirit shadows.

If this electromagnetic continuum assumption is valid, then the author further suggests that to the extent low frequency electromagnetic energy can be patterned to be sympathetically receptive to cosmically stable higher frequencies, material energy will harmonize and become coherent with cosmic energies becoming more stable and enduring. Several mechanisms are explored.

## Methodology

To test the hypothesis, the addendum to Part 2 of this study examines quantum coherences between certain electrochemical functions of the body and brain and looked for potential spiritual influence mechanisms. The author analyzed the mindal/emotional overcontrol of these physiologies, demonstrated coherence mechanisms and explored ways to improve receptivity and capacity for spiritual/cosmic influences. The approach correlates relevant literature research articles, and theoretical models with numerous Urantia Book references.

# **Areas of Exploration:**

The following areas of possible cosmic associations were investigated:

- 1. The Consciousness Process
- 2. Consciousness
- 3. Personal Consciousness and the Whole
- 4. Brain and Consciousness
- 5. Self-Reflective, Pattern-Recognizing Brain- Mind
- 6. Current Theories of Consciousness
- 7. Consciousness as a Unified Mechanism
- 8. Physiologies of Body Consciousness
- 9. Intercellular Communication
- 10. Epigenetics
- 11. Neurotransmitters
- 12. Homeostasis

- 13. Brain Waves
- 14. Mental Picturizations
- 15. Activity Regulated Cytoskeletons & Synaptic Adhesion Molecules
- 16. The Maturing Brain
- 17. Thought Adjuster Reception
- 18. Changer, Adjuster, Controller
- 19. Microtubules
- 20. Centrioles and Centrosomes
- 21. Microtubule Quantum Coherences
- 22. Electromagnetic Continuum
- 23. Morontia Material Hard Light

- 24. Physiological Continuum
- 25. Single and Multiple Quantum Coherences
- 26. Time
- 27. Time Consciousness
- 28. Multiple Physiological Clocks
- 29. Phase Locked Thought Feedback Loops
- 30. Near Death Experiences
- 31. Emotional Processes
- 32. Emotional Self-Mastery

- 33. Thought Processes
- 34. Sentience and God Consciousness
- 35. Top-Down and Bottom-Up Interpretation
- 36. Soul Physiology
- 37. Preservation of Intention
- 38. Ubiety and Ubiquity
- 39. Experiential Soul Fusion
- 40. Philosophy of Physiology of Spiritual Influences
- 41. God Conscious Persistence

Each of these areas was examined for complemental patterns and pattern-sharing processes. *The Urantia Book*, posits "pattern" as the fundamental blueprint of physical, mental, or spiritual reality stating that it is the master design from which copies are made. Pattern manifests as the organized arrangement of energy that has "paid its gravity debt," (slowed down to the point of having inertia/mass) making it ready for replication. From this Urantia Book perspective, personality, mind, and life itself are superimposed on the basic energies as distinct patterns; they are not inherent qualities of energy but the structured forms or "copies" that energy assumes when it is organized into living, thinking, or spiritual entities. Pattern is also versatile and may be complemental across energy regimes. It can be projected in material, mindal (mental), optical or spiritual dimensions, and it may be the medium through which creativity and evolution are expressed. For example, fundamental life patterns generate diverse biological forms, while in the spiritual and intellectual domains, ideas generate ideals and religious concepts from these patterns to organize our experiences and pattern-matching-perceptions. Ultimately, *The Urantia Book* presents pattern as the essential, immutable framework of creation—a unifying principle that underlies the evolution of personality, the organization of the cosmos, and even the manifestation of divine realities coexistent with the Paradise patterns.

From a physical viewpoint, these patterns have local effects, gradually improving the patterns in evolution, pattern recognition and pattern stabilization. This is demonstrated personally in genetics, epigenetics, neurological, and microtubule pattern development. As a result of acting in response to previously practiced faith in, and reliance on, developing idioms of cognitive neurobiology, we can learn to discriminate, by introspection, the neurotubule assisted coding vectors of our internal axonal pathways, resulting in community service and a more stable civilization. Internal axonal pathways are bundles of axons, or nerve fibers (that include microtubules in the body and neurotubules in the brain, with qubit computational influences at the cellular level) that connect remote parts of the brain and spinal cord, facilitating communication and coordinating various physiological functions. Crosspollination of patterns between salient neural populations improves their interrelatedness, enhances their Christlikeness (think Spirit of Truth) and cosmic similarities (think Godlikeness). This kind of rational thinking is called Transcendent Naturalism and has a circular cause/causality coherence paradigm that can be broken down like this:

## 1. Matter/Energy

There is a continuum between the quantum realm and the realm of classical physics when more complex forms of matter abruptly lose their quantum properties in a phenomenon called "decoherence." Quantum properties like entanglement apparently disappear, waveform collapses, and matter becomes measurable. Classical matter has emerged from the quantum realm via this constantly occurring apparent decoherence. Since energy and matter are reversibly transformational, this implies that energy/matter has an emergent foundation as well as a coherent destiny.

### 2. Life. Sentient Autopoiesis

There is a circular pattern when something maintains and renews itself by regulating its own composition and conserves its own boundaries in a system of feedback loops. The human body, brain and emotions all demonstrate the necessary feedback loops of autopoiesis, self-creation.

#### 3. Mind.

There are mechanisms involving things like microtubules and numerous other communication/connection relationships in the human body that form the base of a 4E ("embodied, embedded, enacted, and extended) cognitive feedback loop. As we enhance the positive aspects of these feedback loops, we improve our spiritual (cosmic) receptivity. As we improve the strength of these feedback loops, we strengthen the energy pattern side of any energy/matter cosmic transformation, and we make our patterns more enduring/eternal.

### 4. Culture.

As the above concepts evolve, righteous minds try to ground morality in six innate, cross-cultural moral feedback loops: care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, sanctity/degradation and liberty/oppression. A moral culture is determined by the point in each dimension where actions become immoral. In other words, a moral system is defined by the 'weights' we give across and within the dimensions to different behaviors or expressions. As cultures evolve towards light and life, more sophisticated models emerge, culminating in "wisdom" which grows out of the wisdom of the individual as it is guided by top-down, cosmic, insight. There is not necessarily a direct connection between how things seem and how they really are. We often mistake our self-reporting of how things seem, unless we evoke a reversible, closed loop, top-down/bottom-up, decoherence/coherence perspective.

### **Discussion**

Findings suggest that the mind, as distinct from the brain, where the brain is the hardware (the energy manifestations of all phases and forms of phenomenal motion, action, and potential) and where the mind is the dynamic software patterning of the flow of electrons in the brain and body (think pre gravity force, ubiquitous interactions with the electron field). The mind is seen as a mitigating force between matter/energy and potential spirit pattern. As *The Urantia Book* says, the mind can be superimposed upon energy, but consciousness is not inherent at the purely material level. The integration of physical forces and energies with spiritual powers is shown to be mediated by the mind. Additionally, the concept of "pattern" as the fundamental blueprint of physical, mental, or spiritual reality is explored, highlighting its role in organizing energy into living, thinking, spiritual entities.

Findings support the notion that spiritual and material experiences are correlated with mind function. The mind, which is thought to be the pre-patterning, and thought gradient encouraging brain force fields, serves as the mechanism by which spirit patterns become experiential to creature personalities. The interplay between physical and spiritual patterns is further evidenced by the presence and influence of spiritual and bio-luminosity in the brain, mind and nervous systems. The author also discusses the potential for spiritual influences to

manifest in physical functions, such as the stability of energy patterns and the coherence of physiological processes.

#### Conclusion

Part 2 provides a scientific framework for understanding the associations between physical and cosmic (spiritual) realities. By examining the coherence between electromagnetic energy, physiological functions, and spiritual influences, the author offers evidence supporting the hypothesis of interconnected physical and wholistic/cosmic/spiritual realms. Further research is needed to explore the mechanisms underlying these associations and their implications for our understanding of reality.

## For the complete research, as supported by *The Urantia Book* see:

 $\frac{https://ubgeoff.com/Images/Physiology\%20of\%20Morontial\%20and\%20Spiritual\%20Influences\%20-\%20UUI\%20course\%20-\%20Sept\%2023.pdf$ 

#### **References:**

- 1. <a href="https://www.sciencedirect.com/science/article/abs/pii/0378475496804769">https://www.sciencedirect.com/science/article/abs/pii/0378475496804769</a> OOR, Quantum coherence in brain microtubules
- 2. <a href="https://en.wikipedia.org/wiki/Orchestrated objective reduction">https://en.wikipedia.org/wiki/Orchestrated objective reduction</a> wiki Orchestrated Objective Reduction
- 3. <a href="https://www.sciencedirect.com/science/article/pii/S1571064513001905?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S1571064513001905?via%3Dihub</a> Review of the 'OOR' theory"
- 4. <a href="https://medium.com/quantum-mysteries/quantum-consciousness-a-critique-of-the-current-framework-1f59d3c53449">https://medium.com/quantum-mysteries/quantum-consciousness-a-critique-of-the-current-framework-1f59d3c53449</a> Quantum Consciousness: A Critique of the Current Framework
- 5. https://www.frontiersin.org/articles/10.3389/fncel.2016.00278/full Control of Neurotransmitter Release
- 6. https://www.bem.fi/book/13/13.htm Electroencephalography
- 7. <a href="https://www.sciencedirect.com/science/article/pii/S105381192200492X">https://www.sciencedirect.com/science/article/pii/S105381192200492X</a> natural frequencies of the resting human brain
- 8. <a href="https://iopscience.iop.org/article/10.1088/1742-6596/329/1/012026/pdf">https://iopscience.iop.org/article/10.1088/1742-6596/329/1/012026/pdf</a> Quantum Coherence in (Brain) Microtubules
- 9. <a href="https://www.ncbi.nlm.nih.gov/pubmed/19776221">https://www.ncbi.nlm.nih.gov/pubmed/19776221</a> Mindfulness quiets the amygdala's fight or flight response.
- 10. <a href="https://katrinapaulson.medium.com/science-finally-explains-how-the-brain-classifies-experiences-as-either-good-or-bad-f44528b334ad">https://katrinapaulson.medium.com/science-finally-explains-how-the-brain-classifies-experiences-as-either-good-or-bad-f44528b334ad</a> How the Brain Classifies Experiences
- 11. <a href="https://mark-havens.medium.com/consciousness-may-rely-on-quantum-entanglement-in-humans-21721d4a39bb">https://mark-havens.medium.com/consciousness-may-rely-on-quantum-entanglement-in-humans-21721d4a39bb</a> Consciousness & Quantum Entanglement in Humans
- 12. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8348406/ Electromagnetic Field in Microtubules
- 13. <a href="https://www.psychologytoday.com/us/articles/199711/mind-body-mystical-connection">https://www.psychologytoday.com/us/articles/199711/mind-body-mystical-connection</a> Body's natural opiates, endorphins.
- 14. <a href="https://iopscience.iop.org/article/10.1088/1361-6463/abe669/meta">https://iopscience.iop.org/article/10.1088/1361-6463/abe669/meta</a> Quantitative detection of optical anisotropy of single microtubules
- 15. <a href="https://www.frontiersin.org/articles/10.3389/fnbeh.2020.626769/full">https://www.frontiersin.org/articles/10.3389/fnbeh.2020.626769/full</a> Contribution of Physical Exercise to Brain Resilience
- 16. https://www.frontiersin.org/articles/10.3389/fnbeh.2020.601939/full HPA
- 17. <a href="https://gerald-baron.medium.com/new-research-on-near-death-experiences-may-shed-light-on-the-mind-body-question-ce64244a3025">https://gerald-baron.medium.com/new-research-on-near-death-experiences-may-shed-light-on-the-mind-body-question-ce64244a3025</a> NDE
- 18. https://scindeks.ceon.rs/Article.aspx?artid=2334-847X1901137K Emotions

- 19. https://journals.sagepub.com/doi/10.1177/2470547017692328 Stress
- 20. https://www.mdpi.com/1422-0067/23/7/3932 Psychoneuroendocrinoimmunology (change yourself)
- 21. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.846085/full Meditation
- 22. <a href="https://urantia-association.org/getting-to-know-ourselves-better/">https://urantia-association.org/getting-to-know-ourselves-better/</a> Getting to Know Ourselves Better, Helena Bañas
- 23. <a href="https://www.ucf.edu/pegasus/your-brain-on-music/">https://www.ucf.edu/pegasus/your-brain-on-music/</a> Music's effect on the brain
- 24. <a href="https://hms.harvard.edu/magazine/sleep/behind-veil-hypnagogic-sleep">https://hms.harvard.edu/magazine/sleep/behind-veil-hypnagogic-sleep</a> Hypnagogic sleep
- 25. <a href="https://www.sciencedirect.com/science/article/abs/pii/S105381001930474X?via%3Dihub">https://www.sciencedirect.com/science/article/abs/pii/S105381001930474X?via%3Dihub</a> MEG correlates of visual consciousness
- 26. <a href="https://www.degruyter.com/document/doi/10.1515/sats-2021-0005/html?lang=en&utm\_source=substack&utm\_medium=email">https://www.degruyter.com/document/doi/10.1515/sats-2021-0005/html?lang=en&utm\_source=substack&utm\_medium=email</a> Experience Machine clickbait
- 27. https://www.jbc.org/article/S0021-9258(23)01744-1/pdf SAMS Synaptic Adhesion Molecules
- 28. <a href="https://www.nature.com/articles/s41586-023-05989-7">https://www.nature.com/articles/s41586-023-05989-7</a> intestinal physiological conditions
- 29. <a href="https://medium.com/sensible-biohacking-transhumanism/manage-inflammation-by-boosting-mitochondria-in-5-steps-98f6d0c5a51e">https://medium.com/sensible-biohacking-transhumanism/manage-inflammation-by-boosting-mitochondria-in-5-steps-98f6d0c5a51e</a> mitochondrial inflammation
- 30. https://www.pnas.org/doi/full/10.1073/pnas.2218949120 Brain effects of DMT.
- 31. https://www.pnas.org/doi/full/10.1073/pnas.0901435106 Default-Mode Network
- 32. <a href="https://medium.com/illumination/meditation-can-enhance-the-cortical-thickness-in-the-brain-and-prevent-the-thinning-of-it-34c85c6bfac6">https://medium.com/illumination/meditation-can-enhance-the-cortical-thickness-in-the-brain-and-prevent-the-thinning-of-it-34c85c6bfac6</a> Meditation promotes cortex growth.
- 33. <a href="https://www.psycheasinteraction.com/?fbclid=IwAR3bQlVQtjUgq7opQkNWtj9XHXZFH\_lfwgfdJovEgr\_liCx4S0TuelRp8qyc\_aem\_Adm81ewB0yPvr1tWGe2yt8XcRiP5cmZOAlwyaYfbguVmxfXrCwbHxPzp\_W3w19Eu2JZ--U9uAhLvtKUu9cufzqxxU Electromagnetic Patterns of Conscious Energy
- 34. <a href="https://medium.com/technicity/decoding-the-mysterious-spiral-signals-hidden-within-the-human-brain-93c47375c362">https://medium.com/technicity/decoding-the-mysterious-spiral-signals-hidden-within-the-human-brain-93c47375c362</a> spiral signals within the human brain
- 35. <a href="https://storiusmag.com/mystery-of-the-mind-7-leading-theories-of-consciousness-explained-379254d3839f">https://storiusmag.com/mystery-of-the-mind-7-leading-theories-of-consciousness-explained-379254d3839f</a> Mystery of the Mind: 7 Leading Theories of Consciousness Explained
- 36. <a href="https://www.nature.com/articles/s42255-023-00850-7">https://www.nature.com/articles/s42255-023-00850-7</a> DART electro genetic interface to program mammalian gene expression by direct current
- 37. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8348406/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8348406/</a> Generation of Electromagnetic Field by Microtubules
- 38. <a href="https://medium.com/sensible-biohacking-transhumanism/lazy-and-cheapways-of-boosting-the-brain-chemistry-c53554402483">https://medium.com/sensible-biohacking-transhumanism/lazy-and-cheapways-of-boosting-the-brain-chemistry-c53554402483</a> Fasting and meditation.
- 39. <a href="https://www.ncbi.nlm.nih.gov/books/NBK9932/">https://www.ncbi.nlm.nih.gov/books/NBK9932/</a> Growth and shortening mechanisms of Microtubules.
- 40. <a href="https://www.pnas.org/doi/10.1073/pnas.2202803119">https://www.pnas.org/doi/10.1073/pnas.2202803119</a> Septins activate Actin microtubule growth and cross talk.
- 41. <a href="https://www.scientificamerican.com/article/is-consciousness-part-of-the-fabric-of-the-universe/">https://www.scientificamerican.com/article/is-consciousness-part-of-the-fabric-of-the-universe/</a> panpsychism, consciousness as a fundamental aspect of reality
- 42. https://en.wikipedia.org/wiki/How the Self Controls Its Brain willed actions and thought- psychons.
- 43. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6664078/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6664078/</a> Energy Homeostasis Principal energy minimization drives thought patterns. Other patterns take more energy.
- 44. <a href="https://journals.sagepub.com/doi/10.1177/17470218211009227">https://journals.sagepub.com/doi/10.1177/17470218211009227</a> Embodied cognition cognition spans brain, body, and the environment
- 45. <a href="https://medium.com/technicity/how-do-cancer-cells-resist-chemotherapy-a1cc65c9c1fc">https://medium.com/technicity/how-do-cancer-cells-resist-chemotherapy-a1cc65c9c1fc</a> Cancer and microtubules
- 46. <a href="https://www.jbc.org/article/S0021-9258(23)02383-9/fulltext?dgcid=raven\_jbs\_etoc\_email">https://www.jbc.org/article/S0021-9258(23)02383-9/fulltext?dgcid=raven\_jbs\_etoc\_email</a> "vinblastine and colchicine, which favor and stabilize tubulin assembly and conformation."

- 47. <a href="https://pubmed.ncbi.nlm.nih.gov/4367887/">https://pubmed.ncbi.nlm.nih.gov/4367887/</a> Colchicine and vinblastine play essential roles in the control of the body's osmotic balance, blood pressure regulation, sodium homeostasis, and kidney functioning.
- 48. <a href="https://en.wikipedia.org/wiki/Michael\_Levin\_(biologist">https://en.wikipedia.org/wiki/Michael\_Levin\_(biologist</a>) Michael Levin morphogenesis
- 49. <a href="https://medium.com/microbial-instincts/why-jn-1-variant-is-over-represented-in-wastewater-covid-surveillance-35425fbd6151">https://medium.com/microbial-instincts/why-jn-1-variant-is-over-represented-in-wastewater-covid-surveillance-35425fbd6151</a> Conformational Ensemble and Folding Pathways of RNA molecules are not rigid but can adopt different shapes or conformations depending on the environmental conditions, such as temperature, pH, or salt concentration.
- 50. <a href="https://opentextbc.ca/modernphilosophy/chapter/john-lockes-1632-1704-essay-concerning-human-understanding-1689/">https://opentextbc.ca/modernphilosophy/chapter/john-lockes-1632-1704-essay-concerning-human-understanding-1689/</a> John Locke's Essay Concerning Human Understanding (1689)
- 51. <a href="https://www.sciencedirect.com/science/article/pii/S1053811921003517">https://www.sciencedirect.com/science/article/pii/S1053811921003517</a> Young infants process prediction errors at the theta rhythm
- 52. <a href="https://www.psychologytoday.com/intl/blog/psychiatry-for-the-people/202011/7-core-pathological-personality-traits">https://www.psychologytoday.com/intl/blog/psychiatry-for-the-people/202011/7-core-pathological-personality-traits</a> 7 Core Pathological Personality Traits
- 53. <a href="https://www.jneurosci.org/content/41/5/873">https://www.jneurosci.org/content/41/5/873</a> Alcohol and drug addictions
- 54. <a href="https://www.pnas.org/doi/full/10.1073/pnas.2316306121">https://www.pnas.org/doi/full/10.1073/pnas.2316306121</a> Live music stimulates the affective brain and emotionally entrains listeners.
- 55. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139029/#:~:text=Based%20on%20structural%20features%2C%20neurosteroids,pregnenolone%20sulfate%20(PS)%20and%20dehydroepiandrosterone</a> Neurosteroids: Endogenous Role in the Human Brian and Therapeutic Potentials
- 56. <a href="https://phys.org/news/2024-01-scientists-wide-range.html">https://phys.org/news/2024-01-scientists-wide-range.html</a> model of connectivity and networking and self-organization that applies across a wide range of organisms.
- 57. <a href="https://medium.com/illumination/sleep-regulation-neurobiology-of-the-suprachiasmatic-nucleus-flace82235d7">https://medium.com/illumination/sleep-regulation-neurobiology-of-the-suprachiasmatic-nucleus-flace82235d7</a> Sleep neurotransmitters
- 58. <a href="https://www.jstor.org/stable/2808474">https://www.jstor.org/stable/2808474</a> Electro Dynamic Theory of Life Yale University
- 59. <a href="https://link.springer.com/article/10.1007/s40656-018-0221-2">https://link.springer.com/article/10.1007/s40656-018-0221-2</a> Non-metaphysical evaluation of vitalism in the early twentieth century
- 60. <a href="https://www.semanticscholar.org/paper/A-biopolymer-transistor%3A-electrical-amplification-Priel-Ramos/eca04ef6e4baf5449673b83bfd73dc379979ba7d">https://www.semanticscholar.org/paper/A-biopolymer-transistor%3A-electrical-amplification-Priel-Ramos/eca04ef6e4baf5449673b83bfd73dc379979ba7d</a> A biopolymer transistor: electrical amplification by microtubules.
- 61. https://link.springer.com/article/10.1140/epje/i2011-11049-0 Microtubule conductivity
- 62. <a href="https://www.scientificamerican.com/article/a-random-influx-of-dna-from-a-virus-helped-vertebrates-become-so-stunningly/">https://www.scientificamerican.com/article/a-random-influx-of-dna-from-a-virus-helped-vertebrates-become-so-stunningly/</a> Myelin origin
- 63. <a href="https://melissahogenboom.substack.com/p/how-i-rewired-my-brain-in-six-weeks">https://melissahogenboom.substack.com/p/how-i-rewired-my-brain-in-six-weeks</a> Brain rewiring
- 64. <a href="https://medium.com/starts-with-a-bang/can-the-known-particles-and-interactions-explain-consciousness-79ede94d35b9">https://medium.com/starts-with-a-bang/can-the-known-particles-and-interactions-explain-consciousness-79ede94d35b9</a> How fundamental particles create consciousness.
- 65. <a href="https://iopscience.iop.org/article/10.1088/2399-6528/ac94be">https://iopscience.iop.org/article/10.1088/2399-6528/ac94be</a> Non classical Brain Function Kersken and Lopez Perez 2022
- 66. <a href="https://ui.adsabs.harvard.edu/abs/2022PhyEs..35...27W/abstract">https://ui.adsabs.harvard.edu/abs/2022PhyEs..35...27W/abstract</a> Entropy scale factor may explain gravity, dark matter, and the expansion of space.
- 67. <a href="https://news.harvard.edu/gazette/story/2013/09/seeing-light-in-a-new-way/">https://news.harvard.edu/gazette/story/2013/09/seeing-light-in-a-new-way/</a> Seeing light in a new way.
- 68. <a href="https://www.huffpost.com/entry/solid-light-created\_n\_5824268">https://www.huffpost.com/entry/solid-light-created\_n\_5824268</a> A freaky new form of light
- 69. https://news.mit.edu/2018/physicists-create-new-form-light-0215 Physicists create new form of light
- 70. <a href="https://www.esa.int/Science\_Exploration/Space\_Science/First\_3D\_map\_of\_the\_Universe\_s\_dark\_matter-scaffolding">https://www.esa.int/Science\_Exploration/Space\_Science/First\_3D\_map\_of\_the\_Universe\_s\_dark\_matter-scaffolding</a>
- 71. <a href="https://www.sciencedirect.com/science/article/abs/pii/S0149763423004724">https://www.sciencedirect.com/science/article/abs/pii/S0149763423004724</a> Libet's legacy: A primer to the neuroscience of volition

- 72. <a href="https://neurosciencenews.com/death-nde-consciousness-23161/#:~:text=Researchers%20identified%20a%20surge%20of%20gamma%20wave%20activity%2C,providing%20exciting%20new%20insights%20into%20the%20human%20mind.">https://neurosciencenews.com/death-nde-consciousness-23161/#:~:text=Researchers%20identified%20a%20surge%20of%20gamma%20wave%20activity%2C,providing%20exciting%20new%20insights%20into%20the%20human%20mind.</a> Lucid death: sparks of consciousness detected in dying brains
- 73. <a href="https://link.springer.com/article/10.1007/s11097-012-9256-0">https://link.springer.com/article/10.1007/s11097-012-9256-0</a> Phenomenal consciousness, attention and accessibility
- 74. <a href="https://en.wikipedia.org/wiki/Integrated">https://en.wikipedia.org/wiki/Integrated</a> information theory Wiki
- 75. <a href="https://www.psychologytoday.com/us/blog/finding-purpose/202309/understanding-higher-order-theories-of-consciousness">https://www.psychologytoday.com/us/blog/finding-purpose/202309/understanding-higher-order-theories-of-consciousness</a> Understanding Higher-Order Theories of Consciousness
- 76. https://en.wikipedia.org/wiki/Biological naturalism Biological naturalism Wiki
- 77. <a href="https://www.psychologytoday.com/intl/blog/finding-purpose/202310/fame-in-the-brain-global-workspace-theories-of-consciousness">https://www.psychologytoday.com/intl/blog/finding-purpose/202310/fame-in-the-brain-global-workspace-theories-of-consciousness</a> Fame in the Brain—Global Workspace Theories of Consciousness
- 78. <a href="https://plato.stanford.edu/entries/qt-consciousness/">https://plato.stanford.edu/entries/qt-consciousness/</a> Quantum Approaches to Consciousness
- 79. <a href="https://awjuliani.medium.com/a-primer-on-mdma-and-neurotoxicity-7da0750ab4c7">https://awjuliani.medium.com/a-primer-on-mdma-and-neurotoxicity-7da0750ab4c7</a> FDA rejects the use of Ecstasy because of neurotoxicity.
- 80. <a href="https://positivepsychology.com/emotion-wheel/">https://positivepsychology.com/emotion-wheel/</a> 34,000 Emotion States Wheel and How to Use it.
- 81. https://www.ncbi.nlm.nih.gov/books/NBK207181/ Human Brain as a Scaled-Up Primate Brain
- 82. <a href="https://medium.com/@sschepis/solving-the-hard-problem-a-thermodynamic-theory-of-consciousness-and-intelligence-8a15fd729b23">https://medium.com/@sschepis/solving-the-hard-problem-a-thermodynamic-theory-of-consciousness-and-intelligence-8a15fd729b23</a> Thermodynamic Theory of Consciousness
- 83. https://journalpsyche.org/articles/0xc07d.pdf Quantum Physics and Consciousness
- 84. <a href="https://psych.athabascau.ca/html/Psych402/Biotutorials/1/microtubules.shtml">https://psych.athabascau.ca/html/Psych402/Biotutorials/1/microtubules.shtml</a> Are microtubules the brain of the Neuron?
- 85. <a href="https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s?k=dmt+the+spirit+molecule+book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT</a> <a href="https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT">https://www.amazon.com/s.k=dmt+the+spirit+molecule-book&crid=3HQ37JCBOO0F&sprefix=DMT<
- 86. <a href="https://en.wikipedia.org/wiki/Photoreceptor\_cell#Signaling">https://en.wikipedia.org/wiki/Photoreceptor\_cell#Signaling</a> Photoreceptor cells
- 87. <a href="https://izakscientific.com/understanding-photon-entanglement-a-journey-through-quantum-optics/#:~:text=The%20Poincar%C3%A9%20sphere%20is%20a%20geometric%20representation%20used,comprehensive%20visual%20framework%20for%20understanding%20complex%20quantum%20states. Understanding Photon Entanglement: A Journey through Quantum Optics
- 88. <a href="https://medium.com/microbial-instincts/the-miraculous-origin-of-brain-intelligence-in-land-animals-like-us-5e288c356047">https://medium.com/microbial-instincts/the-miraculous-origin-of-brain-intelligence-in-land-animals-like-us-5e288c356047</a> The Miraculous Origin of Brain Intelligence in Land Animals.
- 89. <a href="https://www.semanticscholar.org/paper/Multi-level-memory-switching-properties-of-a-single-Sahu-Ghosh/09c24d3c582456be05d9d4c55c00e3db029cc5af">https://www.semanticscholar.org/paper/Multi-level-memory-switching-properties-of-a-single-Sahu-Ghosh/09c24d3c582456be05d9d4c55c00e3db029cc5af</a> Multi level memory-switching properties of a single brain molecule.
- 90. <a href="https://www.sciencedirect.com/science/article/abs/pii/S0956566313001590">https://www.sciencedirect.com/science/article/abs/pii/S0956566313001590</a> Atomic water channel controlling remarkable properties of a single brain microtubule: Correlating single protein to its supramolecular assembly.
- 91. <a href="https://pubs.acs.org/doi/10.1021/acs.jpcb.3c07936">https://pubs.acs.org/doi/10.1021/acs.jpcb.3c07936</a> Ultraviolet superradiance from mega-networks of tryptophan in biological architectures.
- 92. <a href="https://link.aps.org/accepted/10.1103/PhysRevLett.108.083902">https://link.aps.org/accepted/10.1103/PhysRevLett.108.083902</a> Electromagnetically Induced Transparency.
- 93. <a href="https://www.medscape.com/viewarticle/navigating-election-anxiety-how-worry-affects-brain-2024a1000ee7?ecd=wnl\_sci\_tech\_240814\_MSCPEDIT\_etid6744463&uac=440226HJ&impID=6744463 How Worry Affects the Brain.</a>
- 94. <a href="https://www.ted.com/talks/michael\_levin\_the\_electrical\_blueprints">https://www.ted.com/talks/michael\_levin\_the\_electrical\_blueprints</a> that orchestrate life?user\_email\_add\_ress=3d463761b7c72249f5eecc668bcd7124&lctg=62d1a7381c794c328cc68276&subtitle=en\_- Electrical\_blueprints</a> that orchestrate life.

- 95. <a href="https://pubmed.ncbi.nlm.nih.gov/29169033/">https://pubmed.ncbi.nlm.nih.gov/29169033/</a> Mapping complex mind states: EEG neural substrates of meditative unified compassionate awareness.
- 96. <a href="https://www.scientificamerican.com/article/advanced-meditation-alters-consciousness-and-our-basic-sense-of-self/">https://www.scientificamerican.com/article/advanced-meditation-alters-consciousness-and-our-basic-sense-of-self/</a> Advanced Meditation Alters Consciousness and Our Basic Sense of Self
- 97. https://en.wikipedia.org/wiki/Noether%27s\_theorem\_ Noether's theorem
- 98. <a href="https://phys.org/news/2024-08-photon-entanglement-rapid-brain-consciousness.html">https://phys.org/news/2024-08-photon-entanglement-rapid-brain-consciousness.html</a> Photon entanglement could explain the rapid brain signals behind consciousness
- 99. <a href="https://medium.com/microbial-instincts/our-neurons-mastered-electrical-signals-450-million-years-ago-thanks-to-a-virus-infection-3e19050df0b1">https://medium.com/microbial-instincts/our-neurons-mastered-electrical-signals-450-million-years-ago-thanks-to-a-virus-infection-3e19050df0b1</a> Our Neurons Mastered Electrical Signals 450 million Years Ago Thanks to a Virus Infection
- 100. <a href="https://medium.com/starts-with-a-bang/measuring-reality-really-does-affect-what-you-observe-f610370be712">https://medium.com/starts-with-a-bang/measuring-reality-really-does-affect-what-you-observe-f610370be712</a> Measuring reality really does affect what you observe
- 101. <a href="https://harrison-69935.medium.com/the-reformulated-law-of-infodynamics-b832b6ed8150">https://harrison-69935.medium.com/the-reformulated-law-of-infodynamics-b832b6ed8150</a> The Reformulated Law of Infodynamics
- 102. <a href="https://gabriel-silva.medium.com/what-is-emergence-in-complex-systems-and-how-physics-can-explain-it-d20e82f69752">https://gabriel-silva.medium.com/what-is-emergence-in-complex-systems-and-how-physics-can-explain-it-d20e82f69752</a> What Is Emergence in Complex Systems And How Physics Can Explain It?
- 103. <a href="https://medium.com/@sschepis/quantum-mind-the-surprising-parallels-between-particle-physics-and-human-consciousness-f3ac2f7e919d">https://medium.com/@sschepis/quantum-mind-the-surprising-parallels-between-particle-physics-and-human-consciousness-f3ac2f7e919d</a> Quantum Mind: The Surprising Parallels Between Particle Physics and Human Consciousness
- 104. <a href="https://journals.aps.org/pra/abstract/10.1103/PhysRevA.100.022330">https://journals.aps.org/pra/abstract/10.1103/PhysRevA.100.022330</a> Many-particle entanglement in multiple quantum nuclear-magnetic-resonance spectroscopy
- 105. <a href="https://www.nature.com/articles/d41586-024-02770-2?utm\_source=Live+Audience&utm\_campaign=74d181bed4-nature-briefing-daily-20240828&utm\_medium=email&utm\_term=0\_b27a691814-74d181bed4-52325664 How to Slow Brain Aging (connections)
- 106. <a href="https://medium.com/@sschepis/the-quantum-mind-hypothesis-bridging-physics-and-consciousness-5562cf31327f">https://medium.com/@sschepis/the-quantum-mind-hypothesis-bridging-physics-and-consciousness-5562cf31327f</a> The Quantum Mind Hypothesis: Bridging Physics and Consciousness
- 107. https://www.facebook.com/reel/2451677281692061 Beta-Actin memory gluing video
- $108. \underline{https://journals.aps.org/pre/abstract/10.1103/PhysRevE.110.024402} \ \ Entangled \ biphoton \ generation \ in the myelin sheath$
- 109. <a href="https://katrinapaulson.medium.com/researchers-successfully-use-ultrasound-waves-on-the-brain-to-enhance-mindfulness-dce9325accae">https://katrinapaulson.medium.com/researchers-successfully-use-ultrasound-waves-on-the-brain-to-enhance-mindfulness-dce9325accae</a> Ultrasound Waves to Enhance Mindfulness.
- 110. <a href="https://medium.com/predict/debunking-quantum-consciousness-theories-e083668db74b">https://medium.com/predict/debunking-quantum-consciousness-theories-e083668db74b</a> Debunking quantum consciousness "theories".
- 111. <a href="https://www.mdpi.com/1996-1944/14/16/4527">https://www.mdpi.com/1996-1944/14/16/4527</a> Strongly Correlated Electron Transport and Mott Insulator in Disordered Multilayer Ferritin Structures
- $112. \, \underline{https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7065627/} \text{ The inner clock} -- Blue \ light sets \ the \ human rhythm}$
- 113. <a href="https://www.nature.com/articles/s41598-022-12460-6">https://www.nature.com/articles/s41598-022-12460-6</a> Human magnetic sense is mediated by a light and magnetic field resonance-dependent mechanism
- 114. <a href="https://www.nih.gov/news-events/nih-research-matters/new-color-vision-pathway-unveiled">https://www.nih.gov/news-events/nih-research-matters/new-color-vision-pathway-unveiled</a> New color vision pathway unveiled
- 115. <a href="https://www.quantamagazine.org/cells-across-the-tree-of-life-exchange-text-messages-using-rna-20240916/?utm\_source=Live+Audience&utm\_campaign=6a35fcea6d-nature-briefing-daily-20240919&utm\_medium=email&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_medium=email&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_source=Live+Audience&utm\_campaign=6a35fcea6d-nature-briefing-daily-20240919&utm\_medium=email&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_source=Live+Audience&utm\_campaign=6a35fcea6d-nature-briefing-daily-20240919&utm\_medium=email&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_medium=email&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240919&utm\_term=0\_b27a691814-6a35fcea6d-52325664\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-202409184\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240918\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240918\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-rna-20240918\_- Cells\_Across\_the\_tree-of-life-exchange-text-messages-using-text-messages-using-text-messages-using-tex

- 116. <a href="https://medium.com/@sschepis/entangled-minds-the-science-of-quantum-consciousness-2e6583e44169">https://medium.com/@sschepis/entangled-minds-the-science-of-quantum-consciousness-2e6583e44169</a>
   Entangled Minds: The Science of Quantum Consciousness
- 117. <a href="https://www.scientificamerican.com/article/brain-scientists-finally-discover-the-glue-that-makes-memories-stick-for-a/">https://www.scientificamerican.com/article/brain-scientists-finally-discover-the-glue-that-makes-memories-stick-for-a/</a> Brain Scientists Finally Discover the Glue that Makes Memories Stick for a Lifetime
- 118. <a href="https://medium.com/the-quantastic-journal/the-glue-holding-the-many-particles-together-a-journey-through-quantum-chromodynamics-19352e600b2a">https://medium.com/the-quantastic-journal/the-glue-holding-the-many-particles-together-a-journey-through-quantum-chromodynamics-19352e600b2a</a> The Glue Holding the Many Particles Together: A Journey Through Quantum Chromodynamics
- 119. Spirituality, Science, and the Human Body | The Oxford Handbook of Psychology and Spirituality | Oxford Academic (oup.com) Spirituality, Science, and the Human Body
- 120. <u>Spirituality and Happiness: A Neuroscientific Perspective | SpringerLink</u> Spirituality and Happiness: A Neuroscientific Perspective
- 121. https://www.ted.com/talks/bonnie bassler how bacteria talk?user email address=3d463761b7c72249f 5eecc668bcd7124&lctg=62d1a7381c794c328cc68276&subtitle=en How bacteria talk.
- 122. <a href="https://www.nature.com/articles/d41586-024-03513-z">https://www.nature.com/articles/d41586-024-03513-z</a> Diabetic surge in neurotransmitters.
- 123. https://doi.org/10.3389/fpsyg.2014.00215 The neuroscientific study of spiritual practices
- 124. <a href="https://medium.com/@sschepis/the-mathematical-language-of-consciousness-7f8e19c15318">https://medium.com/@sschepis/the-mathematical-language-of-consciousness-7f8e19c15318</a> The Fibonacci Language of Consciousness
- 125. <a href="https://medium.com/cabbanis/the-most-similar-drugs-to-a-near-death-experience-4ea5a9c86ccb">https://medium.com/cabbanis/the-most-similar-drugs-to-a-near-death-experience-4ea5a9c86ccb</a> Drugs Similar to a Near-Death Experience
- 126. https://arxiv.org/abs/2411.13714 Gravitational-wave signatures of non-violent non-locality
- 127. https://pmc.ncbi.nlm.nih.gov/articles/PMC7075204/ Impedance of Microtubules
- 128. <a href="https://medium.com/@sschepis/consciousness-quantum-physics-and-prime-numbers-d6f5870a34cc">https://medium.com/@sschepis/consciousness-quantum-physics-and-prime-numbers-d6f5870a34cc</a>
  Consciousness and prime numbers
- 129. https://medium.com/neo-cybernetics/physiological-emergence-of-consciousness-62c9885d882b Physiological Emergence of Consciousness
- 130. https://avi-loeb.medium.com/the-mass-of-light-f2881983742f Mass of light
- 131. <a href="https://medium.com/microbial-instincts/the-origin-of-alzheimers-disease-lies-in-the-hippocampus-but-why-this-area-fbf31af13480">https://medium.com/microbial-instincts/the-origin-of-alzheimers-disease-lies-in-the-hippocampus-but-why-this-area-fbf31af13480</a> Origin of Alzheimer's Disease Lies in the Hippocampus
- 132. <a href="https://www.mdpi.com/2072-6643/13/9/3173">https://www.mdpi.com/2072-6643/13/9/3173</a> Alcohol and Cancer: Epidemiology and Biological Mechanisms.
- 133. <a href="https://medium.com/neo-cybernetics/consciousness-as-a-unified-mechanism-29058a84380f">https://medium.com/neo-cybernetics/consciousness-as-a-unified-mechanism-29058a84380f</a> Consciousness as a Unified Mechanism
- 134. https://medium.com/@sschepis/the-torus-of-perception-fd738d35f412 Torus of Perception
- 135. <a href="https://medium.com/wise-well/a-neglected-neurotransmitter-provides-food-for-thought-4e0c8a992a62">https://medium.com/wise-well/a-neglected-neurotransmitter-provides-food-for-thought-4e0c8a992a62</a> Glutamate, Food for Thought
- 136. <a href="https://jamanetwork.com/journals/jamaneurology/fullarticle/2829261?guestAccessKey=4e166dca-7877-4635-b8d1">https://jamanetwork.com/journals/jamaneurology/fullarticle/2829261?guestAccessKey=4e166dca-7877-4635-b8d1</a>
  - <u>9fcfef730dfa&utm\_source=for\_the\_media&utm\_medium=referral&utm\_campaign=ftm\_links&utm\_cont\_ent=tfl&utm\_term=012725#google\_vignette Predicting Individual Pain</u>
- 137. <a href="https://www.sciencedirect.com/science/article/pii/S0969996123003613?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0969996123003613?via%3Dihub</a> Laminar organization of neocortical activities during systemic anoxia
- 138. <a href="https://medium.com/illumination/sleep-regulation-neurobiology-of-the-suprachiasmatic-nucleus-flace82235d7">https://medium.com/illumination/sleep-regulation-neurobiology-of-the-suprachiasmatic-nucleus-flace82235d7</a> Sleep Regulation: Neurobiology of the Suprachiasmatic Nucleus
- 139. <a href="https://www.ted.com/talks/kathleen\_mcauliffe\_do\_gut\_microbes\_control\_your\_personality?user\_email\_address=3d463761b7c72249f5eecc668bcd7124&lctg=62d1a7381c794c328cc68276">https://www.ted.com/talks/kathleen\_mcauliffe\_do\_gut\_microbes\_control\_your\_personality?user\_email\_address=3d463761b7c72249f5eecc668bcd7124&lctg=62d1a7381c794c328cc68276</a> Do gut microbes control your personality?

- 140. https://www.livescience.com/health/ageing/biological-aging-may-not-be-driven-by-what-we-thought?utm term=C706AA63-0D94-4621-AFA1-
  - $\frac{2 \text{CFE71E9FE30\&lrh} = b \text{c} 5112 \text{a} 2 \text{c} 7868660 \text{e} 467 \text{a} 7a15 \text{a} b 45 \text{d} 88 \text{a} \text{a} \text{d} \text{b} \text{d} 180 \text{c} \text{d} 193 \text{f} 23 \text{c} \text{d} 193 \text{c} \text{d}$
  - 62503D85375D&utm medium=email&utm content=7E21F5C4-0449-4631-9128-
  - <u>0F8FAC71E651&utm\_source=SmartBrief</u> Biological aging.
- 141. <a href="https://www.ted.com/talks/wendy\_suzuki\_the\_brain\_changing\_benefits\_of\_exercise?user\_email\_addres\_s=3d463761b7c72249f5eecc668bcd7124&lctg=62d1a7381c794c328cc68276">https://www.ted.com/talks/wendy\_suzuki\_the\_brain\_changing\_benefits\_of\_exercise?user\_email\_addres\_s=3d463761b7c72249f5eecc668bcd7124&lctg=62d1a7381c794c328cc68276</a> TED Talk Bain and Exercise
- 142. https://www.nature.com/articles/d41586-025-00637-8 Supersolid made using photons
- 143. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC6762774/">https://pmc.ncbi.nlm.nih.gov/articles/PMC6762774/</a> Mediated Synaptic Transmission Is Dependent on Microtubule Motors
- 144. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC8251789/">https://pmc.ncbi.nlm.nih.gov/articles/PMC8251789/</a> Comprehensive Analysis of Binding Sites in Tubulin
- 145. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC4191094/pdf/rsif20140677.pdf">https://pmc.ncbi.nlm.nih.gov/articles/PMC4191094/pdf/rsif20140677.pdf</a> Coherent energy transfer in microtubules
- 146. <a href="https://iopscience.iop.org/article/10.1088/1361-6463/abe669/meta">https://iopscience.iop.org/article/10.1088/1361-6463/abe669/meta</a> Quantitative detection of optical anisotropy of single microtubules
- 147. <a href="https://www.nature.com/articles/d41586-025-01021-">https://www.nature.com/articles/d41586-025-01021-</a>
  - 2?utm\_source=Live+Audience&utm\_campaign=cccf225624-nature-briefing-daily-
  - <u>20250404&utm\_medium=email&utm\_term=0\_b27a691814-cccf225624-52325664</u> How does the brain control consciousness? This deep-brain structure
- 148. <a href="https://www.nytimes.com/2025/04/09/science/neuroscience-brain-mice-map.html?smid=nytcore-ios-share&referringSource=articleShare&sgrp=g&pvid=373B02B2-2D0E-4EC1-BEE1-5E373EFBDE61">https://www.nytimes.com/2025/04/09/science/neuroscience-brain-mice-map.html?smid=nytcore-ios-share&referringSource=articleShare&sgrp=g&pvid=373B02B2-2D0E-4EC1-BEE1-5E373EFBDE61</a> Mouse Brain video
- 149. <a href="https://royalsocietypublishing.org/doi/10.1098/rsif.2018.0826">https://royalsocietypublishing.org/doi/10.1098/rsif.2018.0826</a> Electromechanical vibration of microtubules and its application in biosensors
- 150. <a href="https://pubmed.ncbi.nlm.nih.gov/25438322/">https://pubmed.ncbi.nlm.nih.gov/25438322/</a> Prediction of Tubulin Resonant Frequencies Using the Resonant Recognition Model
- 151. <a href="https://medium.com/@bill.giannakopoulos/spooky-action-at-a-distance-reversed-entanglement-as-collapse-of-mutual-information-79f7b7b61934">https://medium.com/@bill.giannakopoulos/spooky-action-at-a-distance-reversed-entanglement-as-collapse-of-mutual-information-79f7b7b61934</a> Spooky Action at a Distance, Reversed: Entanglement as Collapse of Mutual Information
- 152. <u>https://tbiomed.biomedcentral.com/articles/10.1186/1742-4682-9-26</u> Electric fields generated by synchronized oscillations of microtubules, centrosomes and chromosomes
- 153. <a href="https://www.prosci.com/blog/lewins-change-theory#:~:text=Lewin's%20Change%20Theory%2C%20developed%20by,to%20a%20desired%20future%20state">https://www.prosci.com/blog/lewins-change-theory#:~:text=Lewin's%20Change%20Theory%2C%20developed%20by,to%20a%20desired%20future%20state</a>. What Is Lewin's Change Theory?
- 154. <a href="https://www.bmc.com/blogs/lewin-three-stage-model-change/#:~:text=Lewin%20identifies%20human%20behavior%2C%20with,without%20actually%20attaining%20that%20capacity.">https://www.bmc.com/blogs/lewin-three-stage-model-change/#:~:text=Lewin%20identifies%20human%20behavior%2C%20with,without%20actually%20attaining%20that%20capacity.</a> Lewin three stage model.
- 155. <a href="https://medium.com/@bill.giannakopoulos/edge-critical-intelligence-the-gut-brain-axis-as-a-computational-system-f8522a932ca2">https://medium.com/@bill.giannakopoulos/edge-critical-intelligence-the-gut-brain-axis-as-a-computational-system-f8522a932ca2</a> Edge-Critical Intelligence: The Gut-Brain Axis as a Computational System
- 156. <a href="https://drive.google.com/file/d/1ZTZMMjMn3FCE9EUpb8NzokPJtHInAYRY/view">https://drive.google.com/file/d/1ZTZMMjMn3FCE9EUpb8NzokPJtHInAYRY/view</a> Fundamental Density Theory
- 157. <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5624990/">https://pmc.ncbi.nlm.nih.gov/articles/PMC5624990/</a> An Overview of Heart Rate Variability Metrics and Norms

- 158. <a href="https://zenodo.org/records/15330696/files/VTT-FOURIER.pdf?download=1">https://zenodo.org/records/15330696/files/VTT-FOURIER.pdf?download=1</a> Viscous Time Theory
- 159. <a href="https://ctmucommunity.org/wiki/Cognitive-Theoretic\_Model\_of\_the\_Universe">https://ctmucommunity.org/wiki/Cognitive-Theoretic\_Model\_of\_the\_Universe</a> Cognitive-Theoretic Model of the Universe
- 160. <a href="https://iopscience.iop.org/article/10.1088/1361-6633/adc82e">https://iopscience.iop.org/article/10.1088/1361-6633/adc82e</a> Gravity generated by four one-dimensional unitary gauge symmetries and the Standard Model
- 161. https://en.wikipedia.org/wiki/Emergentism Emergentism Wikipedia
- 162. <a href="https://medium.com/@bill.giannakopoulos/the-mutual-information-theory-of-consciousness-mitc-a-info-thermodynamic-framework-for-awareness-59c5e5663a6e">https://medium.com/@bill.giannakopoulos/the-mutual-information-theory-of-consciousness-mitc-a-info-thermodynamic-framework-for-awareness-59c5e5663a6e</a> The Mutual Information Theory of Consciousness (MITC): A Info-Thermodynamic Framework for Awareness and Qualia.
- 163. <a href="https://www.youtube.com/watch?v=LXFFbxoHp3s">https://www.youtube.com/watch?v=LXFFbxoHp3s</a> Clarifying the Tubulin bit/qubit Defending the Penrose-Hameroff Orch OR Model (Quantum Biology)
- 164. https://www.proteinatlas.org/humanproteome/subcellular/microtubules Microtubules
- 165. <a href="https://medium.com/@bill.giannakopoulos/persistence-theory-a-thermodynamic-and-information-theoretic-interpretation-of-quantum-mechanics-c9a9aab523b6">https://medium.com/@bill.giannakopoulos/persistence-theory-a-thermodynamic-and-information-theoretic-interpretation-of-quantum-mechanics-c9a9aab523b6</a> Persistence Theory
- 166. <a href="https://www.nature.com/articles/s41377-025-01759-4.pdf">https://www.nature.com/articles/s41377-025-01759-4.pdf</a> Universal conservation laws of the wave-particle entanglement triad
- 167. <a href="https://www.frontiersin.org/journals/physics/articles/10.3389/fphy.2020.00150/full">https://www.frontiersin.org/journals/physics/articles/10.3389/fphy.2020.00150/full</a> Ultrasound Neuromodulation
- $168. \underline{https://www.livescience.com/physics-mathematics/physicists-capture-second-sound-for-the-first-time-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching?utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA63-0D94-4621-AFA1-after-nearly-100-years-of-searching.utm\_term=C706AA64-After-nearly-100-years-of-searching.utm\_term=C706AA64-After-nearly-100-years-of-searching.$ 
  - $\frac{2 \text{CFE71E9FE30\&lrh} = bc5112a2c7868660e467a7a15ab45d88aadbdf80cd093f23cd02dbbc2cb68523\&utm}{campaign} = \frac{368B3745-DDE0-4A69-A2E8-}{campaign} = \frac{368B3745-DDE0-4$
  - 62503D85375D&utm\_medium=email&utm\_content=90A59B11-2BDF-40B3-90AE-
  - 3FB3B81FC659&utm source=SmartBrief Second Sound
- 169. https://www.scientificamerican.com/issue/sa/2025/06-
  - 01/?fbclid=IwQ0xDSwKp4Y5leHRuA2FlbQIxMQABHnCxmXYUV7kvIFf0w-
- 170. <a href="https://www.independent.co.uk/news/science/rats-driving-cars-fun-study-university-richmond-b2650005.html?utm-source=substack&utm-medium=email-">https://www.independent.co.uk/news/science/rats-driving-cars-fun-study-university-richmond-b2650005.html?utm-source=substack&utm-medium=email-</a> Key to a healthy brain
- 171. <a href="https://onlinelibrary.wiley.com/doi/10.1111/ejn.15059">https://onlinelibrary.wiley.com/doi/10.1111/ejn.15059</a> Gamma-frequency stimulation: Implications for healthy ageing
- 172. <a href="https://medium.com/@drwolfgangstegemann/a-brief-history-of-consciousness-056c268ee758">https://medium.com/@drwolfgangstegemann/a-brief-history-of-consciousness-056c268ee758</a> Brief History of Consciousness
- 173. <a href="https://link.springer.com/article/10.1007/s12031-019-01457-y">https://link.springer.com/article/10.1007/s12031-019-01457-y</a> Tryptophan Improves Memory Independent of Its Role as a Serotonin Precursor
- 174. <a href="https://scitechdaily.com/a-third-type-of-magnet-researchers-confirm-exotic-altermagnetism/">https://scitechdaily.com/a-third-type-of-magnet-researchers-confirm-exotic-altermagnetism/</a>
  Altermagnets
- 175. God, Consciousness, Quantum Theory and the Urantia Book Raul Valverde, Concordia University, Canada

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