Quantum Mechanics

The Wave Equation, The Signature Wave Entanglement and the S Drive

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Epigenetics and the Human Body

The human body is more than just a group of muscles, bones and organs working together. The body is controlled by interacting harmonic frequencies that are responsible for the exchange of information, energy and matter through a process of transformation called life that is sustained by a state of wellness and wellbeing defined as epigenetics: Signaling.

The process of transformation is known in Biochemistry as metabolism, and metabolism is both catabolic and anabolic, where organic matter is broken down (catabolism) to be rebuilt again (anabolism). Metabolism is reflected in epigenetics, as the ability of the human body to respond to micro and macro environmental signals, emanating from within the human body and its surroundings with methylations to the Cysteine components of the DNA molecule.

Epigenetic information allows for communication through vibration and resonance

Communication is a signalling system generated in the realm of epigenetics that allows for the interchange of energy into matter and vice versa via bio-photons[1,2]. This important information is not reflected by DNA itself. The impact on our wellbeing occurs in what has been labelled epigenetics, which accounts for up to 98% of the nuclear micro cellular environment that is independent of the DNA and that receives environmental signals *i.e.* information, through proteins called histones[3]. Genetic determination (DNA) and gene expression are driven by 2% of the human genome. So, we can safely say that our genes do not control our Biology, it is all about the environmental signals that affect the body's epigenetics[4].

Environmental Signalling and the Human Body:
The role of the hair and the signature wave

The signature wave is a particular characteristic of each individual, as exclusive as a finger print[4]. So, it identifies the individual as such and carries epigenetic information that in the case of the S-Drive can be digitalized and decoded in an informational facility in Hamburg, Germany.

Hair is known to be one of the most effective biomarkers in nature[5]. This is because it shares the same embriological orign with that of the brain[6]. Hair belongs to the tegumentary system along with the skin, the eye brows, the eye lashes and the teeth. The embryological orign of the tegumentary system represented by the hair and the skin, and the nervous system represented by the brain come from the same germinal sheet called the ectoderm[6].

As the hair, the skin and the brain are of ectodermic orign they are regarded as sensory organs. As they are sensory organs they can pick up envirnomental signals via a wide range of frequencies that allow for physiological responses to occur within the human body.

Four strands of hair will contain a range of frequencies that have accumulated epigenetic information on the homeodynamic processes of everyday life[7]. This unique information is stimulated by the internal micro-environment in response to epigenetics and can be decoded, translated and interpreted by the technology behind the S Drive[8].

By way of an explanation may I use the following analogy: When signals from the environment cause our emotions to manifest feelings of fear, pain and pleasure, the human hair responds to them via the

erector pilli muscle, a muscle that allows the hair to raise and retract depending on the signal received[9]. The aim of such action is to induce a protective outcome for the entire human body. Therefore, hair and its root hold massive amounts of bio-epigenetic information which is relevant to our wellbeing when hair is used as an information biomarker[10].

After four hairs with their root have been freshly plucked and digitised using the spectrum coil on the face of the S-Drive, the information is sent via a secure connection to a dgital informational centre in Hamburg, Germany. In less than 15 minutes, a wide ranging statement is returned, based on the body's homeodynamics and epigenetic information. The statement contains nutritional information relevant to the optimization of the individual. The Statement highlights the top 5 categories which need attention ranging in order of priority from what is needed most to what is advisable and what should be considered. This includes all nutritional information, microbiological and toxins challenges, as well as food and additives avoidance.

Resonance via the signature wave and the wave equation in Three Dimensions

To make this phenomenon easier to understand think of an automatic teller machine (ATM). Whenever we withdraw or deposit money there is the need for an ATM debit card. The card is analogous to the hair and its root, the machine is analogous to the S-Drive. By simply inserting the card inside the machine nothing happens until we enter a personal identity number (PIN), this is equivalent to the signature wave. Both the hair and the PIN number are able to identify the individual with a particular frequency, the PIN number. Once the PIN number is entered, meaning the hair is scanned on top of the spectrum coil of the S-Drive; the machine connects with the bank account of the user and draws out or deposits the required funds. This is done digitally. In the same manner, once the epigenetic information is sent to the digital information centre in Hamburg, Germany, the statement is generated based on the decoding of the signature wave of the individual whose hair was scanned. Both operations are mediated by the same principle: vibrational resonance.

Our human symmetry is multi-dimensional and encompasses the physical world which is Tri-dimensional. Everything we look at has a length, a width and a height. Distances are measured in meters, time is measured in seconds. Energy and matter are interdependent as one converts into the other. The common denominator of this process is vibrational resonance. Signals from the environment enter the human body via resonance among the frequencies emitted by the physical environment we live in and those resulting from the trillions of cells we are made of.

Everything in the universe is constantly resonating and vibrating and in doing so, frequencies are emitted[11]. These frequencies communicate with one another via bio-photons[12]. They share information via the emission of weak current and light known as Bio photons. This was first described by Alexander Gurwitsch in 1923[12]. The information is shared among living system through epigenetics.

The current scientific understanding is that bio-photons carry cellular interactive information to facilitate the levels of complexity that allow atoms to become molecules, and molecules to eventually become an integrative system called cell that allow for the formation of an organism which is capable to sustain life as we know it[13].

Our bio-photonic signature wave identifies chemical entities known as atoms and refers to them as chemicals elements; when the signature wave confers them an identity based on their increasing atomic number, which is given by the number of protons found in the nucleus of any atom. This allows

them to form molecules by simple communication established by the nature of the chemical bond, thanks to two atomic properties: Electronegativity and the Inductive Effect[14]. Electronegativity is the ability that an atom has to literally steal an electron from another atom which is willing to give one or two electrons away. The inductive effect is exerted by the atom willing to give electrons to another capable of taking them. In this way, covalence is established[14]. Covalence simply means sharing electrons. The covalent bond is either polar or non-polar. In the periodic table of Chemical Elements the electronegativity increases from the elements that are found in the first group, to the Halogen group found on the seventh group, and rises from the bottom to the top. So, the most electronegative element of is Fluoride and the atom of Hydrogen found the first group, gives its electron away. This knowledge has become another important step in broadening our understanding of Biology and Biochemistry. This 'quantum view' places harmony, duality and stability as the fundamental characteristics of nature. Scientists have termed this photonic cellular information as Epigenetics[15]. This is the basic principle that the S-Drive works with as it reflects the epigenetic and environmental impact within the human body. Our lives therefore function on anatomical and physiological conditions as well as the informational impact on our own personal epigenetics. We refer to this as our unique signature wave.

The signature wave defines and identifies a structure based on its function. For example, enzymes lower the energy of activation in such a way that they are able to speed up and slow down biochemical reactions. This is based upon informational activity. Enzymes and hormones need to be triggered by external energy, i.e. bio-photons and electromagnetic energy[16].

Photons activate biological systems through translational, rotational, vibrational and electromagnetic energy[16]. Photons have a deep influence in the electromagnetic spectrum; they are indeed responsible for the singularity and universality of the cosmos. They allow for the complexity in the simplicity and the simplicity in the complexity. They redefine the universe and call it multiverse. The interaction established by the universe and the multiverse allows for an extraordinary variety of life forms. All of us are one entity defined by a diversity of universal structures and their respective functions and all life forms emit their own individual signature wave.

Fritz Alexander Popp studied photons and concluded that the spectral distribution of bio photons cover a range from 200 nm to 800 nm. The spectrum is not linear but rather flat, following approximately the rule **f(w)=C**, C =constant, f describes the probability of occupying the phase space of energy hw[17].

Steven Hawking describes the universe as an open system with no boundaries, a point of view that greatly differs from the concept of a closed universe as proposed by Boltzmann where T is the absolute zero at -273°C or 0 °K[18].

The probability of counting 0, 1, 2, 3, ...to an infinite number of bio-photons in a present time interval ⸮T follows accurately a Poissonian distribution **p(n, ⸮t)= Exp (-<n>) <n>$^{n/n!}$** where <n> is the mean value of the photon numbers n, during the present time interval ΔT[19].

Bio-photons emit from DNA. This is extraordinary as it gives rise to coherence1. The Coherence state is defined as an Eigen-state of the annihilation operator **a(a) = a|a, where [a⁻,a⁺] = 1, and 1 is** harmony[19].

Gluber and Mehtaetal[20,21] have shown that the coherent state reminds coherent at all times, when

the Hamiltonian equation takes the form of:

$$H = \sum_{jk} f_{jk}(t)a_j^+ a_k + \sum_k (g_k(t)\, a_k^+ + g_k(t)\, a_k) + b(t)$$

The terms describe the free energy, the exchange of energy and the interaction of energy.

When we introduce the functions.

$F(t)a^+a = \sum_{jk} \dots$, $G(t)a^+ = \sum_k \dots$ and $G(t)a = \sum_k \dots$ we can rewrite the equation as:

$$H = F(t)a^+a + G(t)a^+ + G(t)a + B(t)$$

So, to calculate the properties of the coherent state $|\alpha>$ under the influence of the Hamiltonian $(t)H$. The Schrödinger equation takes the form of $i\hbar \frac{\tau|\alpha(t)}{\tau t} = H|\alpha(t)$ for which the initial condition is $|\alpha(0) \geq |\alpha$ and this the solution can be written as:

$|\alpha(t) = e^{-1\frac{\int_0^1 H(t)dt}{h}}|\alpha(c)$ Consequently we obtain.

$|\alpha(t) = e^{(-\frac{i}{\hbar}\bar{F}a^+a + \bar{G}a^+ + \bar{G}a + \bar{B}(t))}|\alpha$ where $\bar{F}, \bar{G}, \bar{B}$ are abbreviation of $\int_0^1 F(t)dt$, $\int_0^1 G(t)dt$, $\int_0^1 B(t)dt$ respectively.

Since $\bar{B}(t)$ is simply C we can factorize

$$|\boldsymbol{\alpha(t)} = e^{\frac{-i}{\hbar}B(t)} \cdot e^{\frac{-i}{\hbar}Fa^+a} \cdot e^{\frac{i}{\hbar}(\bar{G}a^+ + \bar{G}a)} \cdot e^{\frac{1}{2}\left[\frac{-i}{\hbar}F_{a^+a} - \frac{i}{\hbar}(\bar{G}a^+ + \bar{G}a)\right]}|\alpha$$

The Baker-Hausdorff identity

$e^{(\bar{0}_1 + \bar{0}_2)} = e^{(\bar{0}_1)}e^{(\bar{0}_2)}e^{\frac{1}{2}[\bar{0}_1 . \bar{0}_2]}$ with a straight forward calculation using $[a, a^+a] \Rightarrow |\alpha(t) = e^{\left(\frac{i}{\hbar}\bar{F}_{a^+a}\right)}$

we get: $\alpha(t) = e^{\frac{1}{4\hbar^2}\bar{F}(\bar{G}_\alpha - \bar{G}_\alpha)}e^{\frac{i}{\hbar}\bar{B}(t)}e^{-\frac{i}{\hbar}F_{a^+a}(t)}e^{\left(-\frac{i}{\hbar}(\bar{G}_\alpha + \bar{G}_\alpha)\right)}e^{\left(\left(\alpha + \frac{i}{2\hbar}FG\right)a \pm \alpha + \frac{1}{2\hbar^2}FG\right)a}|(a)$

$\alpha(t) = e^{\frac{1}{4\hbar^2}\left(\bar{F}(\bar{G}_\alpha - \bar{G}_\alpha) - \frac{i}{\hbar}(G\left(a^+ + \frac{1}{2\hbar^2}\bar{F}G\right) + G(\alpha + \frac{1}{2\hbar^2}\bar{F}G)\right)}e^{-\frac{i}{\hbar}(B(t))}e^{-\frac{i}{\hbar}\bar{F}a^+}\mathfrak{D}\left(\alpha + \frac{1}{2\hbar^2}\bar{F}G - - \frac{i}{\hbar}G\right)|a$

$$\Rightarrow |\alpha(t) = \Upsilon|\beta(t)|$$

Consequently we get: $|\alpha(t)| = e^{\frac{i}{\hbar}[(\bar{F}_{a^+a} + G_a) + \bar{B}(t)]}|\alpha|$

Where $\bar{F}, \bar{G}, \bar{B}$ are abbreviations of $\int_0^1 F(\hbar)dt, \int_0^1 G(t)dt, \int_0^1 B(t)\,dt$

$\gamma = e\left\{\frac{1}{4\hbar^2}F(G_\alpha - G_\alpha) - \frac{i}{\hbar}\left\{G\left(\alpha + \frac{1}{2\hbar^2}FG\right)\bar{G}\left(\alpha + \frac{1}{2\hbar^2}FG\right) + \bar{B}(t) + \bar{F}\right\}\right.$

Where $\beta(t) = \alpha(0) + \frac{1}{2\hbar^2}\bar{F}\bar{G} - \frac{i}{\hbar}G$ $\qquad \gamma \cdot \gamma = 1$ $\qquad \boxed{\textbf{Harmony}}$

So, now we can look at the wave equations that determine the ability of biological systems such as the DNA of the human body to emit bio-photons and translate their vibrational resonance via the signature wave.

The Wave Equation

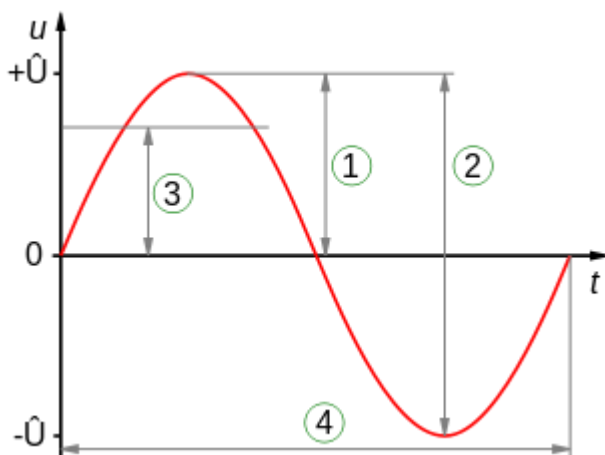The wave equation is $x = A \, Sin \, [\omega(t - K)] + b$ /

A is the peak amplitude of the wave,
x is the oscillating variable,
ω is angular frequency,
t is time,
K and b are arbitrary constants representing time and displacement offsets respectively.

Sinusoidal curve
1 = Peak amplitude ($\hat{U}$),
2 = Peak-to-peak amplitude ($2\hat{U}$)
3 = Root mean square amplitude $\left(\hat{U}/\sqrt{2}\right)$
4 = Wave period (not an amplitude)

Peak-to-peak amplitude is the change between peak (highest amplitude value, which can be positive) and trough (lowest amplitude value, which can be negative).

The wave equation is a hyperbolic partial differential equation τt, that concerns time (t) as a variable, space as a variable $x, x_1, x_2 \dots x_n$ and a scalar function $u(x_1, x_2, x_n \dots t)$, whose values could be modeled as the displacement wave, and thus for allows scalar waves to become vortices which once were regarded as standing waves[22].

In Physics a standing wave, also known as a stationary wave, is a wave in a medium in which each point on the axis of the wave has an associated constant amplitude. The locations at which the amplitude is at a minimum are called nodes, and the locations where the amplitude is at its' maximum are called antinodes[23] (see diagrams below).
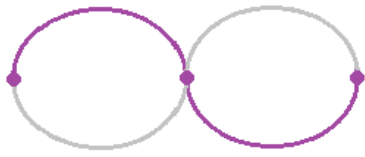
A standing wave pattern is a vibrational pattern created within a medium when the vibrational frequency of the source causes reflected waves from one end of the medium to interfere with incident waves from the source. This interference occurs in such a manner that specific points along the medium appear to be standing still. Because the observed wave pattern is characterized by points that appear to be standing still, the pattern is often called a *standing wave pattern.*[23] Such patterns are only created within the medium at specific frequencies of vibration. These frequencies are known as harmonic frequencies, or merely harmonics. At any frequency other than a harmonic frequency, the interference of reflected and incident waves leads to a resulting disturbance of the medium that is irregular and non-repeating[23,24].

The nodes are the receiver and the antinodes are the antenna.
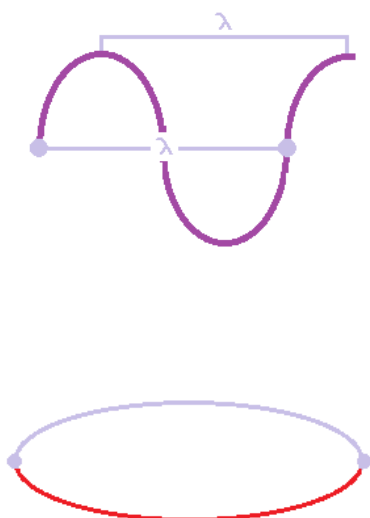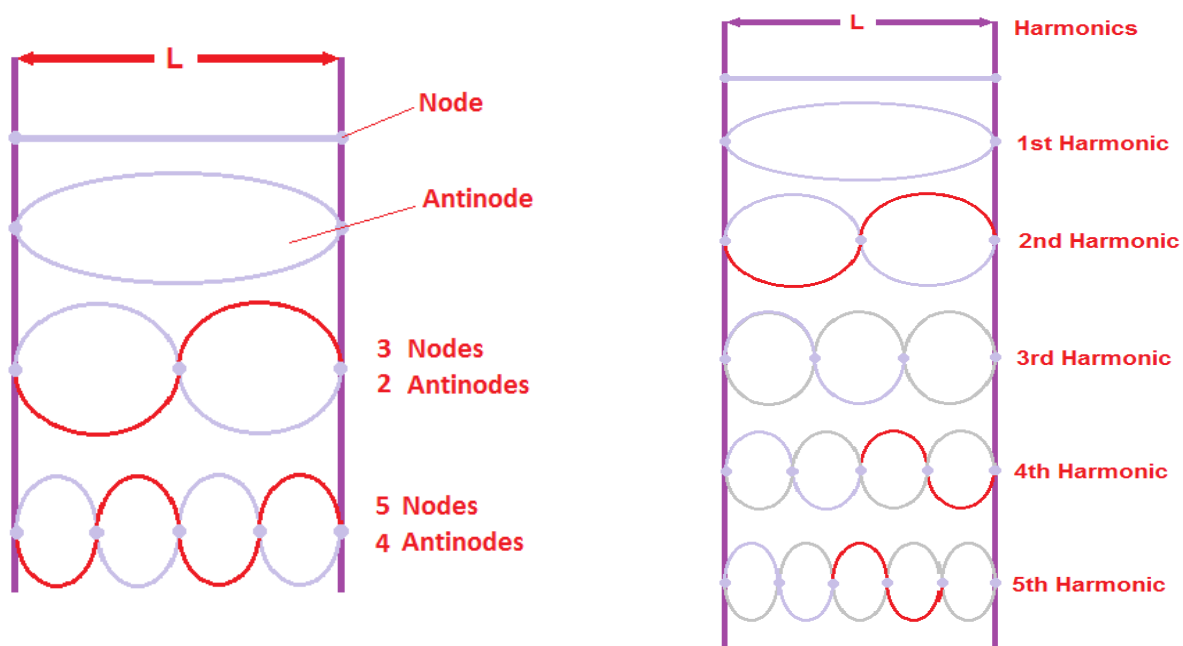
λ = wave length
L = Length of the total wave.

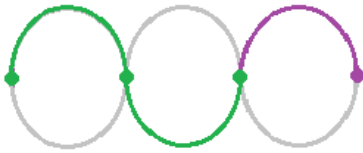$L = \frac{\lambda}{2} \Rightarrow$ Half of the wave length

$$\lambda = 2L \qquad\qquad \lambda_1 = 2L \Rightarrow \frac{2}{1}L$$

$$L = \lambda$$
$$\lambda = L \Rightarrow \lambda = \frac{2}{2}L \qquad \lambda_2 = L \Rightarrow \frac{2}{2}L$$
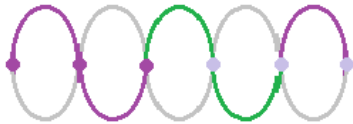
$$L = \frac{3}{2}\lambda$$

$$\lambda = \frac{2}{3}L \qquad \lambda_3 = \frac{2}{3}L \Rightarrow \frac{2}{3}L$$

$$\lambda = \frac{2}{4}L$$

$$\lambda = \frac{L}{2} \Rightarrow \frac{2}{4}L$$

$$\lambda_5 = \frac{2}{5}L \Rightarrow \frac{2}{5}L$$

$$L = \frac{5}{2}\lambda \quad \lambda = \frac{2}{5}L$$

For any given harmonic the expressions to calculate the wave length, frequency and velocity of the wave are:

$$\lambda_n = \frac{2}{n}L$$

$$f = \frac{1}{sec} \qquad f_n = \frac{v_n}{2L}$$

$$\lambda = m \qquad v = \sqrt{\frac{F_t}{\mu}}$$

$$v = \frac{m}{sec}$$

The wave equation for a scalar function $u = u(x_1, x_2, x_3 \dots \dots x_n, \tau)e$
Is

$$\frac{y^2\, u}{y\tau^2} = c^2\, \nabla^2\, u$$

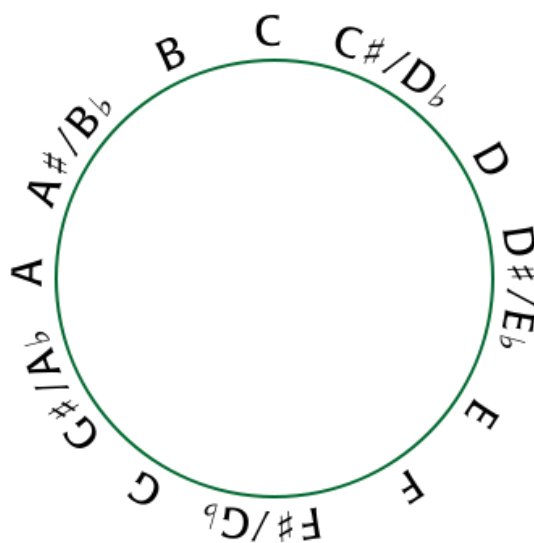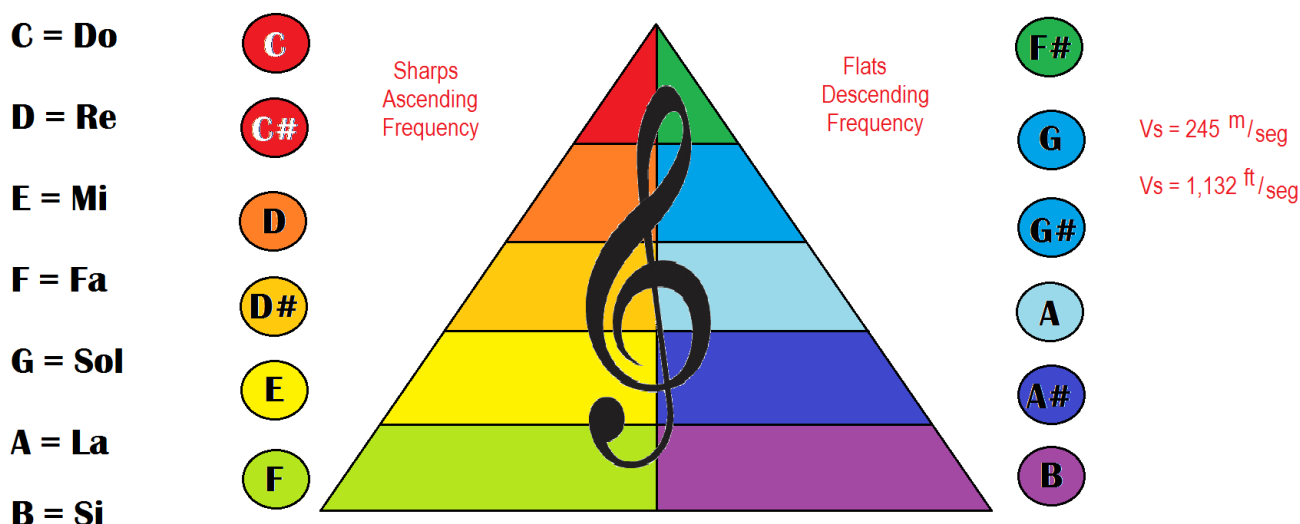Where ∇^2 is the spacial Laplacian. Solutions for this equation that are initially zero outside the restrictive region spread out of the region to a fixed speed in all directions.
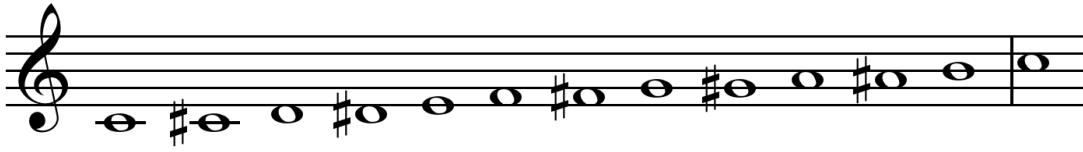
So we need to consider the following parameters:

1. Constant C is identified with the propagation of speed of the wave.

2. The equation is linear, as the sum of the two solutions is again a solution, In Physics this property is called the superimposition principle.

3. The equation itself does not specify a solution. A solution is obtained by setting up conditions, such as initial conditions which prescribe the determination of the value and velocity of the wave. The value is determined by the length of the wave λ and the velocity of the wave which is calculated by

$$V_n = f_n\,2L \implies V_n = 2Lf_n \implies V = \sqrt{\frac{f_\tau}{\mu}} \quad f\tau = \text{Force of the tension.}$$

4. Boundary conditions for which solutions are present and represent standing waves or harmonies are analogous to musical notes.

C = Do

D = Re

E = Mi

F = Fa

G = Sol

A = La

B = Si

Sharps
Ascending
Frequency

Flats
Descending
Frequency

Vs = 245 ^{m}/seg

Vs = 1,132 ^{ft}/seg

Chromatic scale on C: full octave ascending and descending

5. The wave equation is found in quantum mechanics, plasma physics, and general relativity.

6. The wave equation in one dimension can be expressed as:

$$\frac{y^2\,y}{y\,t^2} = C\,\frac{y^2\,y}{y\,x}$$

Measure of stress or disturbance $u(x)$ measures the distance from equilibrium of mass situated at x.

The forces extended and exerted on the mass at location $x + h$ are:

$$F_{Newton} = m.\,a(t) = m.\frac{\partial^2}{\partial t^2}u(u + h, \tau)$$

$$F_{Hooke} = F_{x+2h} - F_x = k[u(x + 2h, \tau) - u(x + h, \tau) - u(x + h, \tau) + u(x, \tau)]$$

The equation of motion for the weight at location $x + h$ is:

$$m\frac{\partial^2}{\partial t^2}u(u + h, \tau) = k[u(x + 2h, \tau) - u(x + h, \tau) - u(x + h, \tau) + u(x, \tau)]$$

Where the time dependence of $U(x)$ has been made explicit. The array of N weights spaced evenly over the length $L = Nh$ of total mass M = Nm and the total spring constant of array $K = \frac{EA}{L}$ We then can write the equation as

$$\frac{\partial^2}{\partial t^2}u(x + h, \tau) = \frac{KL^2}{M}\frac{\partial^2 u(x, \tau)}{\partial x^2}$$

Taking the limit $N \to \infty, h \to 0$

$$\frac{\partial^2 u(x, t)}{\partial t^2} = \frac{KL^2}{M}\frac{\partial^2 u(x, t)}{\partial x^2}$$

$\frac{KL^2}{M}$ Is the square of the propagation of the speed.

The one dimensional wave equation is unusual for a partial differential equation.

$\xi = x - ct$ 🔲 🔲 $\eta = x + ct$ 🔲changes the equation into $\frac{\partial^2 u}{\partial \xi \partial \eta} = 0$

$U(\xi, \eta) = F(\xi) + G(\eta)$ 🔲therefore $U(x, \tau) = F(x - c\tau) + G(x + c\tau)$

These two equations are advection equations, one travelling left, the other travelling right both with constant speed

Solutions to the wave equations are sums of a right travelling function F, and a left travelling function G.

Travelling means that the shape of these individual arbitrary functions are translated right and left with time at speed c.

This is derived from the Jean Le Rond D' Alambert formula.

The result is the d´ Alembert formula

$$u(x,t) = \frac{f(x - ct) + f(x + ct)}{2} + \frac{1}{2} \int_{x-ct}^{x,+ct} g(s) ds$$

Where the impulse travels to the right and to the left.

Scalar wave equation in three Dimensions:

$$\nabla^2 \rightarrow \frac{1}{r^2} \frac{\tau}{\tau t} \left(r^2 \frac{\tau}{\tau r} \right) = \frac{\tau^2}{\tau r^2} + \frac{2}{r} \frac{\tau}{\tau r}$$

Taking the angles into account:

$$\frac{\tau^2 u}{\tau t^2} - c^2 \left(\frac{\tau^2 u}{\tau r^2} + \frac{2}{r} \frac{\tau u}{\tau r} \right) = 0 \implies \frac{\tau^2(ru)}{\tau t^2} - c^2 \frac{\tau^2(r,u)}{\tau r^2} = 0$$

$$u(r,t) = \frac{1}{r} F(r - ct) + \frac{1}{r} G(r + ct)$$

The wave equation is linear in u and it is left unaltered by translation in space and time. Spherical scalar wave can be generated $\varphi(\xi, \eta, \zeta)$ as an arbitrary function of three independent variables.

$$r^2 = (x, \xi)^2 + y(-\eta)^2 + z - \zeta)^2$$

if u is a superposition of such waves.

$$u(t,x,y,z) = \frac{1}{4\pi c} \iiint \varphi(\xi,\eta,\zeta)\tau \frac{(r-\eth)}{r} d\xi d\eta d\zeta$$

$$u(t,x,y,z) = \frac{1}{4\pi c} \iint \varphi(x + ct_\alpha, y + ct_\beta, z + ct_y)d\omega$$

Where α, β, γ are coordinates of the sphere S, and ω is the area of the element of S. The result is that $u(t,x)$ is times the mean value of φ on a sphere of radius ct centered at x.

$$u(t,x,y,z) = tMct[\varphi] \implies u(0,x,y,z) = 0; \ u_t(0,x,y,z) = \varphi(x,y,z)$$

$u(t,x,y,z) = \frac{\tau}{\tau t}(tM_{ct}[\varphi]), u_t = (0,x,y,z) = 0$

These formulas provide the solution to the initial value of the wave equation.
Scalar wave equation in two space dimensions.

$U_r = c^2(u_{xx,}u_{yy}) \implies u(0,x,y) = 0 \ ; \ U_r(0,x,y) = \phi(x,y)$

The tridimensional formula becomes:

$u(t,x,y) = tM_{ct}[\phi] = \frac{t}{4\pi} \iint \phi(x + ct\alpha, ct\beta)d\omega$ α and β are coordinates of the unit of the sphere, and dω is the area of the sphere.

$$u(t,x,y) = \frac{1}{2\pi c} \iint \frac{\varphi(x+\xi, y+\eta)}{\sqrt{(ct)^2 - \xi^2 - \eta^2}} d\xi d\eta$$

.
The solution for (t,x,y) does not only depend on the light from the external cone but also from the internal light of the cone. The cone is in fact a tri-dimensional vortex whose interaction with others allows for the formation of a metatron cube[24].

Our body is ruled by Quantum Mechanics, where like attract like through resonance and vibration. The interaction among particles results in the formation of vortices as shown in the diagrams below. The combined action of vortices results in the formation of a cube known as the metatron cube[24]. Inside the cube the process of entanglement occurs, where everything resonates and interacts with every thing else, where everything is one and one is everything. Where the simplicity becomes complex and the complexity becomes simple.

Therefore, the signature wave is based on the wave equation in three dimensions from the particle's vibratory resonance by means of the process of vorticeal entanglement that determines the structure and function of any biological system[25].
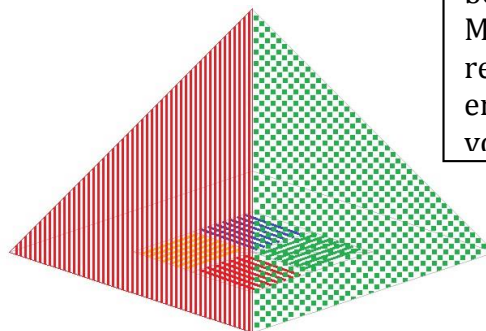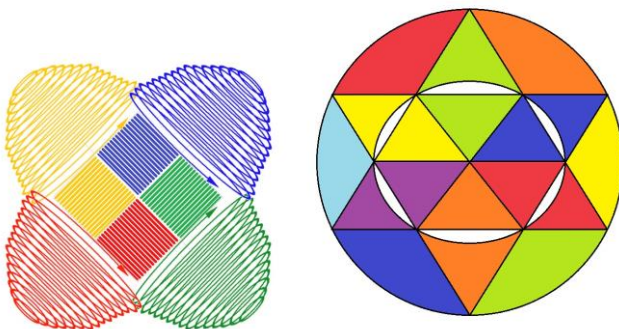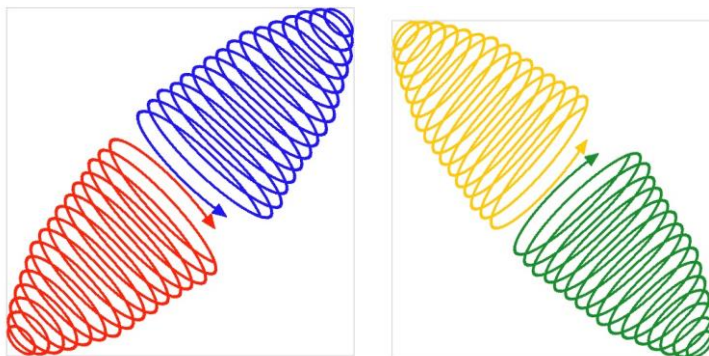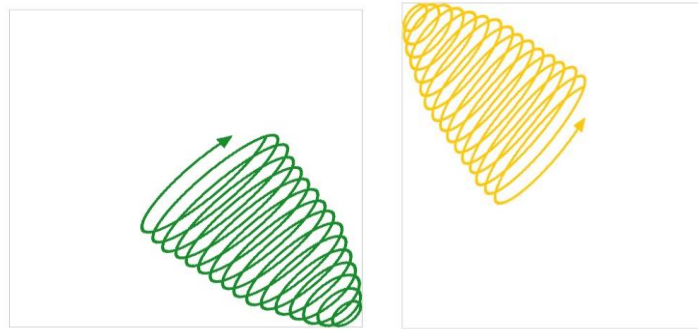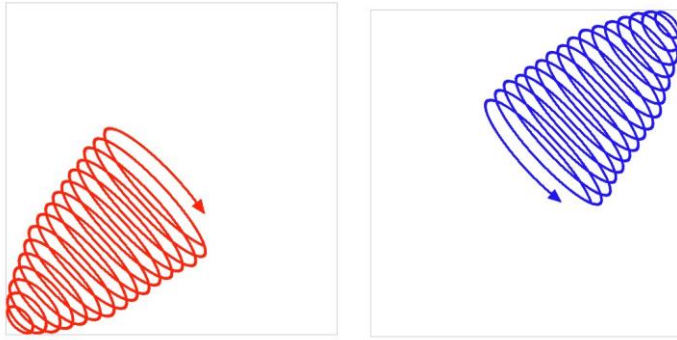
The vortex that is formed from resonance emits a vibration that is captured by another entity which vibrates and resonates with the same frequency. This allows for communication to be established by sharing information, giving rise to entrainment and thus the making of the informational field known as the quantum energy field (QEF). Nature's quantum energy field is known as epigenetics, the source of all signals found in the universe which encompases the micro and the macrocosmos.

The body's informational field (epigenetics) could be referred to as a Metatron Cube that results from the entanglement of the vortices.
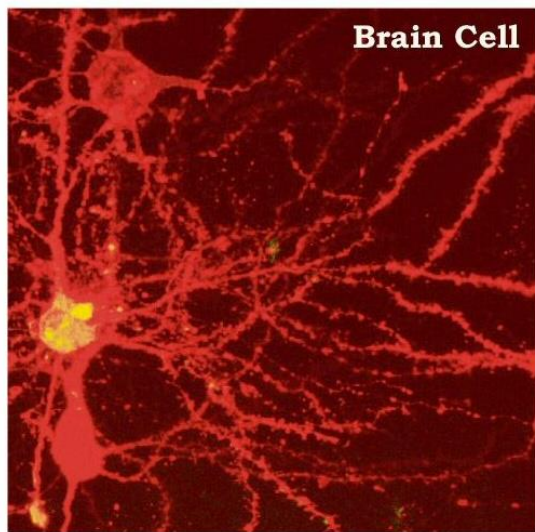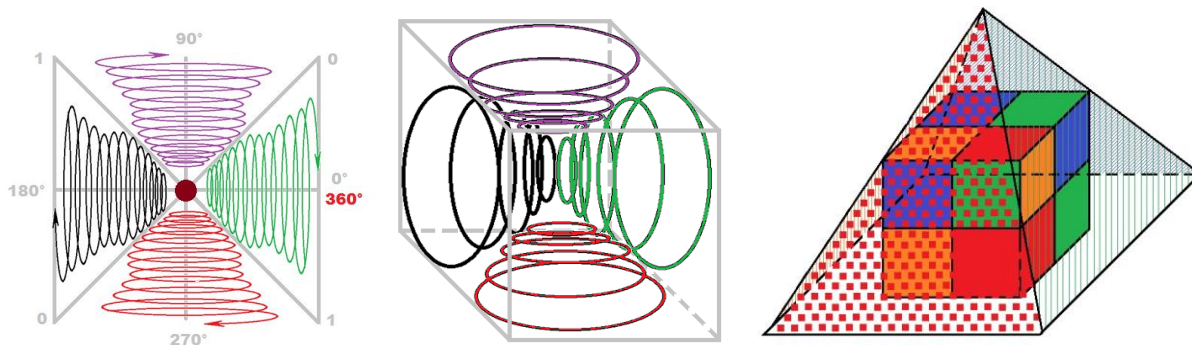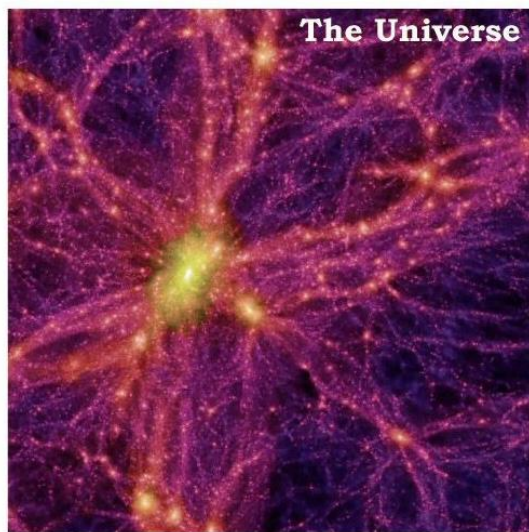
Entanglement allows for communication between the microcosmos and the macrocosmos in such a way that three neurons from a mouse brain whose size is measured in microns (μm) look very similar to a computer generated image of the universe which dimension is measured in billions of light years. The signals transmitted between them, a phenomenon known as epigenetics, makes possible the expression of information through vibrational resonance. This is what is picked up by the S Drive and it is generated by the Smart Card.

Photonic Waves are defined by the probability of electron motion[26]. They define a region of space with the greatest probability of finding an electron. The equations are exact and define the simple probability of finding an electron within a region of space as proposed by Erwin Schrödinger[27,28].

In Quantum Physics all atoms of the universe are ruled by probability not certainty. Despite this, the mathematical equations of quantum mechanics are precise. Thus, Quantum mechanics remains mysterious. For Niels Bohr and Albert Einstein measurements meant everything[29]. Now we can measure what cannot be measured..... Entanglement, where everything interacts with everything else, one is everything and everything is one, the simplicity becomes complex and the complexity becomes simple.

Conclusion:

Entanglement is a theoretical prediction that comes from the equations of quantum mechanics [29,30]. Vibrational resonance makes it happen. Electrons can be connected through huge distances propelled by the spin. This is the principle behind the S-Drive and its relationship with epigenetics and the signature wave. Our choice in one place has an effect or impact somewhere else. This is why optimization is very important as it is a means of improving what is current and considering the impact on the future.

Resonance is the key vibration is the lock. Both open the doors of never ending possibilities. The reality of preventative medicine by reading the signature wave of the human organism through the S-Drive is now just that…. A reality. Quantum entanglement is here to stay and revolutionize our lives. The S-Drive is just the beginning of an exciting future in the world of wellness and wellbeing.

For an appreciation of what this paper is about please have a look at this video on you tube from the 25 minute onwards. The Fabric of the Cosmos Quantum Leap.
video.pbs.org/video/2167398185

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Dr Carlos Orozco is the Medical and Scientific Director of Cell Well Being.

References:

1. Popp, F.A., Gu, Q. and Li, K.H.: Biophoton emission: Experimental background and theoretical approaches. Modern Physics Letters B. Vol.8, Nos.21 & 22 (1994), pp.1269-1296.

2. Chang, J.J., Fisch, J., and Popp, F.A. (eds.): Biophotons. Kluwer Academic Publishers, Dordrecht 1998. Popp, F.A.: Biophotons - background, experimental results, theoretical approach and applications. Res. Adv. in Photochem. & PhotobioL Vol.1 (2000), pp.31-41.

3. Christophorou MA, Castelo-Branco G, Halley-Stott RP, Oliveira CS, Loos R, Radzisheuskaya A, Mowen KA, Bertone P, Silva JC, Zernicka-Goetz M, Nielsen ML, Gurdon JB, Kouzarides T (Mar 2014). "Citrullination regulates pluripotency and histone H1 binding to chromatin". *Nature* **507** (7490): 104–8.

4. Krogan NJ, Dover J, Wood A, Schneider J, Heidt J, Boateng MA, Dean K, Ryan OW, Golshani A, Johnston M, Greenblatt JF, Shilatifard A (Mar 2003). "The Paf1 complex is required for histone H3 methylation by COMPASS and Dot1p: linking transcriptional elongation to histone methylation". *Molecular Cell* **11** (3): 721–9.

5. Sauvé B1, Koren G, Walsh G, Tokmakejian S, Van Uum SH. Measurement of cortisol in human hair as a biomarker of systemic exposure. Clin Invest Med. 2007;30(5):E183-91.

6. Yasuyuki Amoh, Lingna Li, Kensei Katsuoka, Robert M Hoffman Embryonic development of hair follicle pluripotent stem (hfPS) cells. Med Mol Morphol: 2010, 43(2);123-7

7. Colombatti Giovana (2014). The Feeling Body Affective Science Meets Enactive Mind. MIT ISBN

8. Orozco C, (2015). Quantum Physics, Entanglement and the S Drive, (unpublished). Poster Presentation. Xth Water Conference, Varna Bulgaria.

9. David H. Cormack (2001). Essential Histology. Lippincott Williams & Wilkins. pp. 1–35 ISBN 978-0-7817-1668-0.

10. M. I. Szynkowska, A. Pawlaczyk, E. Wojciechowska, S. Sypniewski, T. Paryjczak (2009). Human Hair as a Biomarker in Assessing Exposure to Toxic Metals.Polish J. of Environ. Stud. Vol. 18, No. 6, 1151-1161

11. Carroll, Bradley W. (2007). *An Introduction to Modern Astrophysics*. CA, USA: Pearson Education. p. 256. ISBN 0-8053-0402-9.

12. MikeOrcuttarxiv.org/abs/1205.4134:(2012) Photonic Communications and Information Encoding in Biological Systems. Cornell University Library.

13. L.V.Beloussov, F.-A. Popp, V.L. Voeikov and R. van Wijk eds (2000) Biophotonics and Coherent Systems) Moscow University Press, Moscow.

14. Oxford Centre for Integrative Systems Biology (2012). website. http://www.sysbio.ox.ac.uk

15. Boyd and Morrison. Organic Chemistry. 6th Edition. ISBN-13: 978-013643669

16. Kruse Jack https://www.jackkruse.com/ee-6-quantum-cell-theory-life-collective-phenomena/

17. Popp, J.J. Chang, A. Herzog, Z. Yan, and Y. Yan: Evidence of Non-Classical (Squeezed) Light in Biological Systems. (2002), Physics Letters A. 293 (1-2) pp. 98-102.

18. Hawkings Stephen, Mlodinow (2010) The Grand Design, Radom House Publishing. ISBN 9780553819229.

19. Feynman, Richard P. (1998). *Statistical Mechanics: A Set of Lectures* (2nd ed.). Reading, Massachusetts: Addison-Wesley. ISBN 978-0-201-36076-9.

20. R.J. Glauber, Coherent and incoherent states of radiation field (1963),*Phys. Rev.* **131** 2766-2788.

21. R. V. Mehta, Rajesh Patel, Rucha Desai, R. V. Upadhyay, and Kinnari Parekh. (2006). Experimental Evidence of Zero Forward Scattering in Magentic Spheres.Phys. Rev. Lett. 96,

127-147

22. http://physics.info/waves-standing/ Downloaded August 2015.

23. http://www.physicsclassroom.com/class/sound/Lesson-4/Fundamental-Frequency-and-Harmonics Downloaded August 2015

24. Ketler, Alanna (2013). "The Secret To How The Universe Works Lies Within This Geometrical Pattern. What Is The Flower of Life?". Collective Evolution. Retrieved November 5, 2015

25. Vincenzo D'Ambrosio, Gonzalo Carvacho, Francesco Graffitti, Chiara Vitelli, Bruno Piccirillo, Lorenzo Marrucci, Fabio Sciarrino (2015). Hybrid Entangled Entanglement in Vector Vortex Beams. Quantum Physics. arXiv:1507.08887v1.

26. S. Cohen and F. A. Popp (1997): Biophoton emission of the human body. Journal of Photochemistry and Photobiologv B:Biologv. Vol.40, pp. 187-189.

27. Mehra, J. and Rechenberg, H. (1987) *Erwin Schrödinger and the Rise of Wave Mechanics*. Springer. ISBN 978-0-387-95179-9

28. Schrodinger, Erwin (1926). "Quantisierung als Eigenwertproblem". *Annalen der Phys* **384** (4): 273–376.

29. Einstein A, Podolsky B, Rosen N; Podolsky; Rosen (1935). "Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?". *Phys. Rev.* **47** (10): 777–780.

30. Schrödinger E; Born, M. (1935). "Discussion of probability relations between separated systems". *Mathematical Proceedings of the Cambridge Philosophical Society* **31** (4): 555–563.

Epigenetics and the Epigenome

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Traditionally speaking epigenetics is the study of heritable changes in gene expression that are not mediated through the DNA sequence but through the proteins found in the cell nucleus as well as those found in the cellular membrane (Lipton 2005)[1].

Molecular mechanisms that mediate epigenetic regulation include DNA methylation and chromatin/histone modifications that results in the non-expression of genes (Lipton 2013, Cheung *et al* 2005, Elgin 1996) [2-5]. Therefore, genes do not control our biology as it was originally believed. Moreover, we are not victims of our hereditary make up. With the identification of key histone-modifying enzymes, the biological functions of many histone posttranslational modifications are now beginning to be elucidated based on environmental signals and not on genetic determination (Van Steensel 2011)[5]. This means that our nutrition, thoughts, meditation, e smog (radiation emanating from electromagnetic frequencies), coming from electrical appliances that make our life very easy and convenient, play a major role in gene control through epigenetics.

The change in gene expression is mediated by our perception of the world around us, and it happens within hours. The epigenome is constantly influenced by these perceptions and signals from the environment. Therefore, histone methylation is of particular interest as it plays critical roles in many epigenetic phenomena[3].

When a protein called chromatin, found in the nucleus of our cells condenses, it gives rise to one set of genes that make up the body, another set of genes is found in the heterochromatin otherwise known as junk DNA (Roudier et al, 2011)[6]. This accounts for 98% of so called non coding DNA. This is so important, because it allows for the patterns found in our Biology and our behavior. The heterochromatin is very resistant to mutations, unlike the genes that are expressed through the reading of the genetic information by the ribosomes. Our life experiences are passed on from generation to generation through the epigenome.

The proteins are the ones that control the reading of genes and not the genes themselves. This is called epigenetics.

In Quantum Physics we now talk about harmonic resonance which deals with vibration between two or more waves which share the same frequency and amplitude and that are found in nature. One has an influence on the other, that means, the vibration travels across and from one to the other. We can send out vibration, through the process of our own magnetic brain activity. We become entangled with one another and the environment through this process. All of the sudden our brain frequency, thoughts and emotions are broadcasted out into what physicists called the quantum energy field. Our thoughts will recognize frequencies with the same vibration. Our thoughts will come back to us with the same vibration and they will be intensified and amplified by this reaction. This allows for reactivation of our own resonance, and it will intensify until it becomes our reality. And thus we get what we give, and we get more than we give. Sending positive thoughts will bring back positive actions and a positive environment. This is important since as negative thoughts for example, will bring back negative circumstances. Our thoughts influence everything around us. This is now known as behavioural epigenetics, originally baptized by Bruce Lipton as the Biology of Belief.

Memories are passed between generations via epigenetics. What our great grandparents ate, absorbed, thought and were exposed to, can be expressed in our epigenome, when the environmental signals allow for their manifestation.

Eating according to our epigenomic make up is now a reality. The S-Drive allows us to facilitate the decision making process of what to eat and what to avoid, in order to optimize our state of wellness and wellbeing.

Chromatin is found in two varieties: euchromatin and heterochromatin[4]. Heterochromatin is usually localized to the periphery of the nucleus. Despite this early dichotomy, recent evidence in both animals[4] and plants[5] has suggested that there are more than two distinct heterochromatin states, and it may in fact exist in four or five 'states', each marked by different combinations of epigenetic markers.

In summary:

The Epigenome:

- Allows for cellular differentiation
- Silence's some genes allowing for the expression of others based on environmental signals.
- It uses the process of methylation of histones and heterochromatin to allow for gene expression.
- Epigenetic nutritional food plans change genetic instructions.
- Allows for cellular Epigenetic Therapy by changing genetic instructions.
- The genome is inherited. The epigenome can be altered by environmental signals.
- Understanding and altering the epigenome allows for changes to expression which support wellness.

References:

1. Lipton Bruce (2005) The Biology of Belief. https://www.brucelipton.com/books/biology-of-belief
2. LiptonBruce(2013) http://brucelipton1.s3.amazonaws.com/member_call_with_bruce_december_2013.mp3
3. Cheung P, Lau P (2005) Epigenetic regulation by histone methylation and histone variants. _Mol Endocrinol Mar;19(3):563-73.
4. Elgin, S.C. (1996). "Heterochromatin and gene regulation in *Drosophila*". *Current Opinion in Genetics & Development* **6** (2): 193–202.
5. Van Steensel, B. (2011). "Chromatin: constructing the big picture". *The EMBO Journal* **30** (10): 1885–95.
6. Roudier, François; *et al*. (2011). "Integrative epigenomic mapping defines four main chromatin states in Arabidopsis". *The EMBO Journal* **30** (10): 1928–1938.

Appendix 1:

Evidence of the Epigenome influence is gene expression.

Embryonic development and differentiation produce organisms with many cell types whose identities are stably maintained over numerous cell divisions. Maintenance of cell identity depends on epigenetic control mechanisms that are linked to the assembly of specialized chromatin structures.

Genes that are located in silent heterochromatic DNA domains display variegated or bitable on and off expression states. These states, which are maintained during cell division, are examples of epigenetic states that result from changes in chromatin structure. Research in my laboratory is focused on understanding the mechanisms that are involved in the formation, function, and inheritance of heterochromatin.

Heterochromatin and epigenetic control of gene expression.

Grewal SI1, Moazed D.

Abstract

Eukaryotic DNA is organized into structurally distinct domains that regulate gene expression and chromosome behavior. Epigenetically heritable domains of heterochromatin control the structure and expression of large chromosome domains and are required for proper chromosome segregation. Recent studies have identified many of the enzymes and structural proteins that work together to assemble heterochromatin. The assembly process appears to occur in a stepwise manner involving sequential rounds of histone modification by silencing complexes that spread along the chromatin fiber by self-oligomerization, as well as by association with specifically modified histone amino-terminal tails. Finally, an unexpected role for noncoding RNAs and RNA interference in the formation of epigenetic chromatin domains has been uncovered.

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Glossary:

Epigenetics: The term epigenetics refers to heritable changes in gene expression (active versus inactive genes) that does not involve changes to the underlying DNA sequence; in other words, a change in phenotype without a change in genotype.

Phenotype: The observable physical traits or biochemical characteristics of an organism based on a combination of the organism's genes and environmental factors.

Genotype: The inherited genetic makeup of a cell

Epigenome: DNA modifications that do not change the DNA sequence can affect gene activity. Chemical compounds that are added to single genes can regulate their activity; these modifications are known as epigenetic changes. The epigenome comprises all of the chemical compounds that have been added to the entirety of one's DNA (genome) as a way to regulate the activity (expression) of all the genes within the genome. The chemical compounds of the epigenome are not part of the DNA sequence, but are on or attached to DNA ("epi-" means above in Greek). Epigenomic modifications remain as cells divide and in some cases can be inherited through the generations. Environmental influences, such as a person's diet and exposure to pollutants, can also impact the epigenome.

Chromatin: the readily stainable substance of a cell nucleus, consisting of DNA, RNA, and various proteins, that forms chromosomes and autosomes during cell division.

Heterochromatin: Highly condensed, tightly packed form of chromatin as opposed to the lightly packed euchromatin.

Euchromatin: A slightly packed or partially condensed form of chromatin that contains structural genes and is usually transcriptionally active.

Structural Gene: Any of the genes coding for the production of a specific RNA, structural protein or enzyme not involved in regulation.

Histones: Proteins that fold around the DNA.

Genetics: The science of heredity.

Gene: The fundamental, physical and functional unit of heredity.

Gene Expression: The translation of information encoded in a gene into protein or RNA structures that are present and operating in the cell. Expressed genes include genes that are transcribed into messenger RNA (mRNA) and then translated into protein, as well as genes that are transcribed into RNA, such as transfer and ribosomal RNAs, but not translated into protein.

Genetic Determinism: Mechanism by which genes, along with environmental conditions from the macro and micro cosmos, determine morphological and behavioral phenotypes.

Chromosome: A linear strand of DNA and associated proteins in the nucleus of eukaryotic cells that carries the genes and functions in the transmission of hereditary information.

Autosome: An autosome is a chromosome that is not an allosome (a sex chromosome). Autosomes appear in pairs whose members have the same form but differ from other pairs in a diploid cell, whereas members of an allosome pair may differ from one another and thereby determine sex. The DNA in autosomes is collectively known as atDNA or auDNA.

For example, humans have a diploid genome that usually contains 22 pairs of autosomes and one allosome pair (46 chromosomes total). The autosome pairs are labeled with numbers (1-22 in humans) roughly in order of their sizes in base pairs, while allosomes are labeled with their letters. By contrast, the allosome pair consists of two X chromosomes in females or one X and one y chromosome in males.

Harmonic Resonance: Harmonic resonance is an extraordinarily diverse and varied phenomenon seen in countless forms throughout the universe, from gravitational orbital resonances, to electromagnetic oscillations, to acoustical vibrations in solids, liquids, and gases, to laser resonance in light and microwaves. Harmonic resonance spans a vast range of spatial scales, from the tiniest wave-like vibrations of the elemental particles of matter, to orbital resonances that emerge from spinning disks of gas and stars.