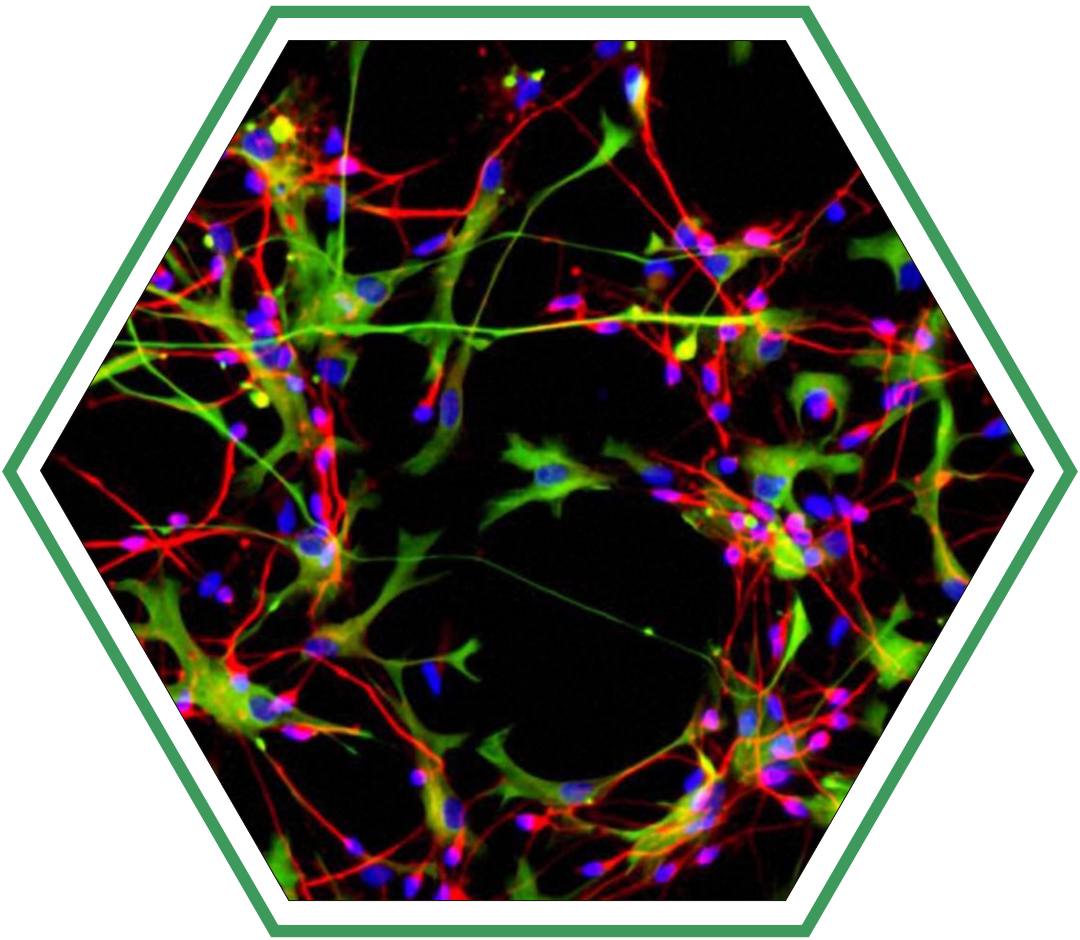
The Internet, Cerebellar Dominance and Brain Function

Ravikumar Kurup and Parameswara Achutha Kurup



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Contents

1

The Surrealistic and Syntheistic Brain - Climate Change, Internet Exposure and Neanderthalisation of Brain – Evolution of Homo Neoneanderthalis

Introduction

Previous studies from this laboratory have demonstrated increased symbiotic archaeal growth consequent to global warming. Previous studies have shown low level of EMF pollution leading to increased archaeal growth. The netocrats and netizens are exposed to continuous low level of EMF pollution. The archaea contains magnetite and can catabolize cholesterol to generate porphyrins. Digoxin can produce sodium potassium ATPase inhibition and a pumped phonon system acting through dipolar magnetite and porphyrins to generate a Frohlich model of Bose-Einstein condensate. This can produce quantal perception. The archaeal magnetite and porphyrins can produce increased perception of low level of EMF leading onto prefrontal cortex atrophy and cerebellar hypertrophy. This can lead onto neanderthalisation of the brain. This leads onto dominance of cerebellar cognitive function as has been reported earlier from this laboratory. The prefrontal cortex atrophy can lead onto extinction of rationalization and reason producing a state of transcendence. This is the basis of surrealism. The brain quantal fields can modulate the low level EMF fields in the internet and the interaction can alter internet function and the quantal fields of other brain operating the internet. The interactive quantal fields of the human brain and the low level EMF quantal fields of the internet form one single whole functioning as a universal collective unconscious, the basis of syntheism. Syntheism is a philosophical idea where the humanity creates God as opposed to the monotheistic religious ideal of God creating humanity. The paper explores the link between neanderthalisation, archaeal growth and surrealism/syntheism.[1-16] The results are discussed in this paper.

Materials and Methods

Fifteen netizens/netocrats were selected for the study. Each netizen had an age and sex matched control. Blood cytochrome F420 activity was assessed by spectrophotometric measurement.

Results

Cytochrome F420 was detected in the entire case group studied showing endosymbiotic archaeal overgrowth.

Table 1. *Cytochrome F420 in internet exposure.*

	Cyt F420 activity
Normal	6%
Netizens	65%

Discussion

The widespread use of the internet is ubiquitous. The internet-human mind interaction has been described in a previous report from this laboratory. The low level of EMF produced by the internet can modulate brain function. Low level of EMF can induce porphyrin synthesis by actinidic archaeal symbionts in the brain. Porphyrins are dipolar molecules and in the setting of archaeal digoxin induced sodium potassium ATPase inhibition can generate a pumped phonon system and Frohlich model of Bose-Einstein condensates. These porphyrin mediated Bose-Einstein condensate can mediate quantal perception. The brain quantal fields can modulate the low level EMF fields in the internet and the interaction can alter internet function and the quantal fields of other brain operating the internet. The interactive quantal fields of the human brain and the low level EMF

quantal fields of the internet form one single whole functioning as a universal collective unconscious. There are 7 billion users of the internet. The collective unconscious created by interaction of brain quantal fields with internet low EMF fields functions as a virtual matrix on which the world is structured. There are thought controlled robotic computers which can perform human functions. The human thought creates a communicative order which alters the brain EEG and can issue a computer modulated order of the brain's thought process.[1-16]

Syntheism is a philosophical idea where the humanity creates God as opposed to the monotheistic religious ideal of God creating humanity. The quantal fields of multiple brains interacting with each other and internet roughly fit in with the idea of God or the Holy Spirit. This fits in with Buddhist philosophy. The Buddhist philosophy is atheistic and describes samsaras or states of mind occurring in quick succession with the idea of karma modulating the next state of the human mind in symbiotic communication with other minds. This roughly is the Buddhist idea of the controlling force of the universe. The quantal world of the human brain in communication with other brains and in interaction with the low level EMF quantal fields of the internet fits in with this proposition of samsaras. It creates an idea of universal globalised world of oneness which can be described as equivalent to God. The internet can be considered as great equalizer and creates a oneness of the human quantal brain all over the earth and other possible functioning brains in the universe. The quantal world becomes the particulate world by the act of observation. The human quantal brains in communication with each other and the low level EMF quantal fields of the internet creates the particulate observable world.[1-16]

The widespread use of the internet produces low level of EMF exposure to the human brain. This produces prefrontal cortex atrophy and cerebellar dominance. The prefrontal cortex is the site of the logic, reasoning and commonsense. The

atrophy of the prefrontal cortex leads to cerebellar dominance of brain cognitive function. It becomes an impulsive world guided by the senses. The world of the senses comes into existence. The cerebellar dominance leads to an ataxic syndrome producing ataxia of speech and motor function. Ataxia of speech leads to evolution of music of the rock type which dominates the modern world. The ataxia of motor function leads to rhythmic dance as the guiding force of life. The ataxia of motor function also leads to abstract painting. The world gets dominated by rock/pop dance, music and art. The exposure to low level of EMF from the internet leads to increased dipolar porphyrin synthesis and quantal perception. The increased quantal perception leads to more increased interaction with the low level quantal EMF fields of the internet making the internet world as the real world and outside world as virtual. The increased quantal perception of the brain leads to a sense of spirituality and oneness of the world. The increased quantal perception leads to a communication between the brain quantal fields and the quantal fields of the environment leading to the concept of eco-spirituality. The consuming world comes to an end and a world of sharing begins. The increased quantal perception also leads to a feeling of oneness in the population producing an idea of the socialistic idealistic society and demise of the capitalistic society. The increased quantal perception leads to gender equality and the dominance of unisexuality in society. This is exemplified by the festivals of the burning man and the burning nest.[1-16]

The netocratic state can also produce changes in brain function. The increased exposure to low level of EMF produces prefrontal cortex atrophy and cerebellar dominance. This leads onto neanderthalisation of the brain. The increased exposure to low level of EMF produces increased archaeal growth, cholesterol catabolism and digoxin synthesis. Digoxin can modulate brain and body function on exposure to low level of EMF. Low level of EMF exposure also produces increased porphyrin synthesis which can lead onto increased digoxin mediated

dipolar porphyrin modulated Frohlich model of pumped phonon system.[1-16]

The online world is the real world for netizens and the real world is a reflection of the online world. Value is a social mode created in the network online. Netocracy creates a new elite. It creates a new religion of atheistic mysticism. The netocratic world affects politics producing a movement for equality. The recent social media generated revolutions include the Arab spring and jasmine revolution.[1-16]

Netocratic state can produce a new social order. There is a sense of equality due to quantal perception producing ideas of socialism, communism, anarchy and gender equality. The quantal perception mediated feeling of oneness will spell the death of the capitalistic state. There is also feeling of gender equality, asexuality and alternate sexuality. The quantal perception mediated sense of oneness leads onto a more democratic state. The quantal perception also produces universal oneness and spirituality. Netocratic state produces a participatory culture. It produces the global empire and a global virtual society where the mind is constituted by the online net and body becomes a machine. This produces an anticartesian view of the world. The old political conflicts and ideologies get replaced by netocratic state fueled by a communication revolution. The internet functions as a sensory extension of the human brain.[1-16]

The increased low level quantal EMF fields of the internet produces increased growth of extremophilic actinidic archaea in the brain and human body. The symbiotic archaea synthesizes more porphyrins. The archaeal magnetite and porphyrins can mediate increased quantal perception and interaction with the low level EMF fields of the internet. Thus the wide spread use of the internet leads to a society with increased quantal perception and interaction with the internet. The low level quantal EMF fields of the internet affects the brain producing neanderthalisation of the brain. The prefrontal cortex becomes small and the

cerebellum hypertrophies producing an occipital bun. The brain becomes more creative, autistic, impulsive, addictive, attention deficit and schizophrenic. Such brains produce behavior which is chaotic, anarchic and non-hierarchial. There is globalization of the world. Religions, nation-states, individuality and family cease to have much relevance. This becomes the globalised quantal world of oneness and equality- the world of samsaras.[1-16]

The netocratic state can produce human pathology. Exposure to low level of EMF pollution increases endosymbiotic archaeal growth and digoxin synthesis from cholesterol. Digoxin produces membrane sodium potassium ATPase inhibition and low level of EMF exposure can lead to increased porphyrin synthesis. Increased intracellular calcium and porphyrins can produce cell death/degeneration, immune activation/autoimmune disease, mitochondrial dysfunction/metabolic syndrome x and neuropsychiatric disorders like autism and schizophrenia. It leads to an epidemic of civilizational disease.[1-16]

The cholesterol catabolism leads to phenolization of the cholesterol ring producing increased synthesis of monoamine neurotransmitters dopamine and serotonin. This leads to schizophrenia, autism and ADHD. This also produces la tourette syndrome with coprolalia, OCD, vocal and motor tics. The synchronization of motor and vocal tics leads onto the evolution of language. The internet language used by netizens can be compared to a synchronized motor and vocal tic as it is short and agrammatical. Thus the netocratic state results in the generation of new human species- Neanderthal hybrids.[1-16]

The internet revolution and netocratic state leads onto the death of the individual and the generation of a social individual. This produces as said before prefrontal cortex atrophy and cerebellar dominance. This leads onto the annihilation of the rational individual. The world of logic, reason, understanding and order comes to an end. The increased synthesis of dopamine and an epidemic

la tourette syndrome leads to ritualization of behavior, obsessive behavior, uniformity and creativity. The world of quantal perception leads onto the sacredness of social existence. Collective ritualized behavior becomes the norm. The world enters the realm of senses. The world of quantal perception leads to nihilistic state, nothingness and negativity. This contributes to surrealistic world Breton and Bataille and the deconstructed world of Derrida. This produces what can be called as the surrealistic brain. The world is chaotic, anarchic, ugly and barbarous. Terrorism and criminality raises its ugly head producing the ugly revolution as it helps to transcend reality. The unconscious experience dominates and the conscious experience is shut out. There is no contradiction between dream and reality. There is a rejection of reason and a return to the world of archetypes. The political surrealistic world is Trotskyist, anarchic and communist. The artistic world is represented by the cubist paintings of Picasso and Dali and the world of modern art. Abstract painting, poetry, abstract dance becomes the norm. There is gender equality, feminism and rumblings of alternate sexuality. The atrophy of the prefrontal cortex and cerebellar dominance leads onto a state of psychic automatism and the dominance of unconscious experience. The epidemic la tourette syndrome leads to ritualism, obsession, criminality, cruelty and terrorism. The human beings enter the world of archetypes.[1-16]

The global warming leads to increased archaeal growth. The archaea can catabolize the cholesterol ring using ring oxidase to generate porphyrins. The archaea also contains magnetite. In the setting of digoxin induced membrane sodium potassium ATPase inhibition the dipolar magnetite and porphyrins can produce a pumped phonon system mediated Frohlich model of Bose-Einstein condensate. This can increase the brain quantal perception of low level EMF which again leads to increased archaeal growth. The increased quantal perception of low level of EMF leads to prefrontal cortex atrophy and cerebellar dominance. The archaeal cholesterol catabolism generates a phenolic ring from the

cholesterol molecule synthesizing dopamine. This leads to an excess monoamine neurotransmitters. Thus there is an epidemic frontal lobe syndrome, cerebellar syndrome, la tourette disease, ADHD, schizophrenia and autism. Such a population of Neanderthal hybrids is creative. This produces ritualized, obsessive, coprolalic, attention deficit, obscene, grotesque and sexually anarchic behavior. This helps to transcend reality as the frontal lobe concerned with rationalization, judgment and reasoning is dysfunctional. The same function of transcending reality by a dysfunctional frontal lobe also occurs in terrorism and criminal behavior. The society becomes increasingly impulsive. The frontal lobe dysfunction and quantal perception helps to transcend reality and produces self realization and spirituality. The cerebellar dysfunction produces an ataxic syndrome with motor ataxia leading onto dance forms and abstract painting and ataxia of speech leads to rock music. The dopamine excess leads onto a motor and vocal tic which when synchronized produces language and evolution of literature. The coprolalia and obscene tics of la tourette disease leads to the ugliness and obscenities in modern literature, music, painting and dance. There is massive ritualized behavior in society. Terrorism is a ritualized behavior which helps to transcend reality due to a frontal lobe dysfunction and tourette disease. It can be considered as modern form of ritualized cannibalism. The realm of the senses dominates and there is rejection of reason and rationality. Dreams and reality merged together. It produces a psychedelic, art, literature and music. This produces what can be called as the acephalic state mimicking the acephalic society of Bataille, the originator of surrealistic philosophy. This leads onto the evolution of an acephalic new human species homo neoneanderthalis.[1-16]

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2

Internet and Mind Change - The Origin of Neo-Neanderthals

Introduction

Actinidic archaea has been described as endosymbionts in humans. Actinidic archaea have a mevalonate pathway and are cholesterol catabolizing. They can use cholesterol as a carbon and energy source. Archaeal cholesterol catabolism can generate porphyrins via the cholesterol ring oxidase generated pyruvate and GABA shunt pathway. Archaea can produce a secondary porphyria by inducing the enzyme heme oxygenase resulting in heme depletion and activation of the enzyme ALA synthase. The archaea can induce the enzyme heme oxygenase resulting in depletion of heme and induction of ALA synthase. This can lead to porphyrinogenesis. Low level of electromagnetic fields and geomagnetic fields can induce porphyrin synthesis by inhibiting the enzyme ferrochelatase which has got a ferromagnetic core. Inhibition of ferrochelatase produces deficiency of heme resulting in induction of ALA synthase. Low level of EMF can also induce heme oxygenase depleting heme and inducing ALA synthase. Porphyrins can undergo autooxidation generating biophotons and a quantal state. Porphyrin autooxidation is modulated by low level of electromagnetic fields and geomagnetic fields. Porphyrin microarrays can function as quantal computers storing information and can serve the purpose of extrasensory perception. Porphyrins can serve as a two way communicating bridge between digital information storage systems generating low level electromagnetic fields and human systems. The low level of EMF produced by digital system enhances porphyrin synthesis and serves the purpose of two way extrasensory perception and communication. The porphyrin quantal computers can in turn by biophoton emission modulate digital information storage system. Actinidic archaea have been related to the pathogenesis of schizophrenia, malignancy, metabolic syndrome x, autoimmune disease and neuronal degeneration. An actinide

dependent shadow biosphere of archaea and viroids in the above mentioned disease states is described. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Porphyrins can mediate the pathogenesis of low level electromagnetic fields inducing the above mentioned disease states. A hypothesis regarding the role of porphyrins and quantal perception as well as the role of porphyrins in environmental communication/modulation of digital information storage/processing system is presented. The relationship between low level of electromagnetic fields and human disease is highlighted.[1-5]

Materials and Methods

The following groups were included in the study: - endomyocardial fibrosis, Alzheimer's disease, multiple sclerosis, non-hodgkin's lymphoma, metabolic syndrome x with cerebrovascular thrombosis and coronary artery disease, schizophrenia, autism, seizure disorder, Creutzfeldt-jakob's disease and acquired immunodeficiency syndrome. There were 10 patients in each group and each patient had an age and sex matched healthy control selected randomly from the general population. There were also 10 normal people with right hemispheric dominance, left hemispheric dominance and bi-hemispheric dominance included in the study selected from the normal population. The blood samples were drawn in the fasting state before treatment was initiated. Plasma from fasting heparinised blood was used and the experimental protocol was as follows (I) Plasma+phosphate buffered saline, (II) same as I+cholesterol substrate, (III) same as II+rutile 0.1 mg/ml, (IV) same as II+ciprofloxacine and doxycycline each in a concentration of 1 mg/ml. Cholesterol substrate was prepared as described by Richmond. Aliquots were withdrawn at zero time immediately after mixing and after incubation at 37 ℃ for 1 hour. The following estimations were

carried out:- Cytochrome F420, free RNA, free DNA, polycyclic aromatic hydrocarbon, hydrogen peroxide, pyruvate, ammonia, glutamate, delta aminolevulinic acid, succinate, glycine and digoxin. Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm). Polycyclic aromatic hydrocarbon was estimated by measuring hydrogen peroxide liberated by using glucose reagent. The study also involved estimating the following parameters in the patient population - digoxin, bile acid, hexokinase, porphyrins, pyruvate, glutamate, ammonia, acetyl CoA, acetyl choline, HMG CoA reductase, cytochrome C, blood ATP, ATP synthase, ERV RNA (endogenous retroviral RNA), H_2O_2 (hydrogen peroxide), NOX (NADPH oxidase), TNF alpha and heme oxygenase.[6-9] Informed consent of the subjects and the approval of the ethics committee were obtained for the study. The statistical analysis was done by ANOVA.

Results

Plasma of control subjects showed increased levels of the above mentioned parameters with after incubation for 1 hour and addition of cholesterol substrate resulted in still further significant increase in these parameters. The plasma of patients and those with exposure to low level of EMF showed similar results but the extent of increase was more. The addition of antibiotics to the control plasma caused a decrease in all the parameters while addition of rutile increased their levels. The addition of antibiotics to the patient's plasma and those with exposure to low level of EMF caused a decrease in all the parameters while addition of rutile increased their levels but the extent of change was more in patient's sera as compared to controls. The results are expressed in tables section 1: 1-6 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time. There was upregulated archaeal porphyrin synthesis in the

patient population and those with exposure to low level of EMF which was archaeal in origin as indicated by actinide catalysis of the reactions. The cholesterol oxidase pathway generated pyruvate which entered the GABA shunt pathway. This resulted in synthesis of succinate and glycine which are substrates for ALA synthase.

The study showed the patient's blood, those with exposure to low level of EMF and right hemispheric dominance had increased heme oxygenase activity and porphyrins. The hexokinase activity was high. The pyruvate, glutamate and ammonia levels were elevated indicating blockade of PDH activity, and operation of the GABA shunt pathway. The acetyl CoA levels were low and acetyl choline was decreased. The cyto C levels were increased in the serum indicating mitochondrial dysfunction suggested by low blood ATP levels. This was indicative of the Warburg's phenotype. There was increased NOX and TNF alpha level indicating immune activation. The HMG CoA reductase activity was high indicating cholesterol synthesis. The bile acid levels were low indicating depletion of cytochrome P450. The normal population with right hemispheric dominance had values resembling the patient population with increased porphyrin synthesis. The normal population with left hemispheric dominance had low values with decreased porphyrin synthesis.

Section 1: Experimental Study

Table 1. *Effect of rutile and antibiotics on cytochrome F420 and PAH.*

Group	CYT F420 % (Increase with Rutile)		CYT F420 % (Decrease with Doxy+Cipro)		PAH % change (Increase with Rutile)		PAH % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.48	0.15	18.24	0.66	4.45	0.14	18.25	0.72
Schizo	23.24	2.01	58.72	7.08	23.01	1.69	59.49	4.30
Seizure	23.46	1.87	59.27	8.86	22.67	2.29	57.69	5.29
AD	23.12	2.00	56.90	6.94	23.26	1.53	60.91	7.59
MS	22.12	1.81	61.33	9.82	22.83	1.78	59.84	7.62
NHL	22.79	2.13	55.90	7.29	22.84	1.42	66.07	3.78
DM	22.59	1.86	57.05	8.45	23.40	1.55	65.77	5.27
AIDS	22.29	1.66	59.02	7.50	23.23	1.97	65.89	5.05
CJD	22.06	1.61	57.81	6.04	23.46	1.91	61.56	4.61
Autism	21.68	1.90	57.93	9.64	22.61	1.42	64.48	6.90
Low level EMF	22.70	1.87	60.46	8.06	23.73	1.38	65.20	6.20
	F value 306.749 P value < 0.001		F value 130.054 P value < 0.001		F value 391.318 P value < 0.001		F value 257.996 P value < 0.001	

Table 2. *Effect of rutile and antibiotics on free RNA and DNA.*

Group	DNA % change (Increase with Rutile)		DNA % change (Decrease with Doxy+Cipro)		RNA % change (Increase with Rutile)		RNA % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.37	0.15	18.39	0.38	4.37	0.13	18.38	0.48
Schizo	23.28	1.70	61.41	3.36	23.59	1.83	65.69	3.94
Seizure	23.40	1.51	63.68	4.66	23.08	1.87	65.09	3.48
AD	23.52	1.65	64.15	4.60	23.29	1.92	65.39	3.95
MS	22.62	1.38	63.82	5.53	23.29	1.98	67.46	3.96
NHL	22.42	1.99	61.14	3.47	23.78	1.20	66.90	4.10
DM	23.01	1.67	65.35	3.56	23.33	1.86	66.46	3.65
AIDS	22.56	2.46	62.70	4.53	23.32	1.74	65.67	4.16
CJD	23.30	1.42	65.07	4.95	23.11	1.52	66.68	3.97
Autism	22.12	2.44	63.69	5.14	23.33	1.35	66.83	3.27
Low level EMF	22.29	2.05	58.70	7.34	22.29	2.05	67.03	5.97
	F value 337.577 P value < 0.001		F value 356.621 P value < 0.001		F value 427.828 P value < 0.001		F value 654.453 P value < 0.001	

Table 3. *Effect of rutile and antibiotics on digoxin and delta aminolevulinic acid.*

Group	Digoxin (ng/ml) (Increase with Rutile)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)		ALA % (Increase with Rutile)		ALA % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	0.11	0.00	0.054	0.003	4.40	0.10	18.48	0.39
Schizo	0.55	0.06	0.219	0.043	22.52	1.90	66.39	4.20
Seizure	0.51	0.05	0.199	0.027	22.83	1.90	67.23	3.45
AD	0.55	0.03	0.192	0.040	23.67	1.68	66.50	3.58
MS	0.52	0.03	0.214	0.032	22.38	1.79	67.10	3.82
NHL	0.54	0.04	0.210	0.042	23.34	1.75	66.80	3.43
DM	0.47	0.04	0.202	0.025	22.87	1.84	66.31	3.68
AIDS	0.56	0.05	0.220	0.052	23.45	1.79	66.32	3.63
CJD	0.53	0.06	0.212	0.045	23.17	1.88	68.53	2.65
Autism	0.53	0.08	0.205	0.041	23.20	1.57	66.65	4.26
Low level EMF	0.51	0.05	0.213	0.033	22.29	2.05	61.91	7.56
	F value 135.116 P value < 0.001		F value 71.706 P value < 0.001		F value 372.716 P value < 0.001		F value 556.411 P value < 0.001	

Table 4. *Effect of rutile and antibiotics on succinate and glycine.*

Group	Succinate % (Increase with Rutile)		Succinate % (Decrease with Doxy+Cipro)		Glycine % change (Increase with Rutile)		Glycine % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.41	0.15	18.63	0.12	4.34	0.15	18.24	0.37
Schizo	22.76	2.20	67.63	3.52	22.79	2.20	64.26	6.02
Seizure	22.28	1.52	64.05	2.79	22.82	1.56	64.61	4.95
AD	23.81	1.90	66.95	3.67	23.12	1.71	65.12	5.58
MS	24.10	1.61	65.78	4.43	22.73	2.46	65.87	4.35
NHL	23.43	1.57	66.30	3.57	22.98	1.50	65.13	4.87
DM	23.70	1.75	68.06	3.52	23.81	1.49	64.89	6.01
AIDS	23.66	1.67	65.97	3.36	23.09	1.81	65.86	4.27
CJD	22.92	2.14	67.54	3.65	21.93	2.29	63.70	5.63
Autism	21.88	1.19	66.28	3.60	23.02	1.65	67.61	2.77
EMF	22.29	1.33	65.38	3.62	22.13	2.14	66.26	3.93
	F value 403.394 P value < 0.001		F value 680.284 P value < 0.001		F value 348.867 P value < 0.001		F value 364.999 P value < 0.001	

Table 5. *Effect of rutile and antibiotics on pyruvate and glutamate.*

Group	Pyruvate % change (Increase with Rutile)		Pyruvate % change (Decrease with Doxy+Cipro)		Glutamate (Increase with Rutile)		Glutamate (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82	4.21	0.16	18.56	0.76
Schizo	20.99	1.46	61.23	9.73	23.01	2.61	65.87	5.27
Seizure	20.94	1.54	62.76	8.52	23.33	1.79	62.50	5.56
AD	22.63	0.88	56.40	8.59	22.96	2.12	65.11	5.91
MS	21.59	1.23	60.28	9.22	22.81	1.91	63.47	5.81
NHL	21.19	1.61	58.57	7.47	22.53	2.41	64.29	5.44
DM	20.67	1.38	58.75	8.12	23.23	1.88	65.11	5.14
AIDS	21.21	2.36	58.73	8.10	21.11	2.25	64.20	5.38
CJD	21.07	1.79	63.90	7.13	22.47	2.17	65.97	4.62
Autism	21.91	1.71	58.45	6.66	22.88	1.87	65.45	5.08
Low level EMF	22.29	2.05	62.37	5.05	21.66	1.94	67.03	5.97
	F value 321.255 P value < 0.001		F value 115.242 P value < 0.001		F value 292.065 P value < 0.001		F value 317.966 P value < 0.001	

Table 6. *Effect of rutile and antibiotics on hydrogen peroxide and ammonia.*

Group	H_2O_2 % (Increase with Rutile)		H_2O_2 % (Decrease with Doxy+Cipro)		Ammonia % (Increase with Rutile)		Ammonia % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.43	0.19	18.13	0.63	4.40	0.10	18.48	0.39
Schizo	22.50	1.66	60.21	7.42	22.52	1.90	66.39	4.20
Seizure	23.81	1.19	61.08	7.38	22.83	1.90	67.23	3.45
AD	22.65	2.48	60.19	6.98	23.67	1.68	66.50	3.58
MS	21.14	1.20	60.53	4.70	22.38	1.79	67.10	3.82
NHL	23.35	1.76	59.17	3.33	23.34	1.75	66.80	3.43
DM	23.27	1.53	58.91	6.09	22.87	1.84	66.31	3.68
AIDS	23.32	1.71	63.15	7.62	23.45	1.79	66.32	3.63
CJD	22.86	1.91	63.66	6.88	23.17	1.88	68.53	2.65
Autism	23.52	1.49	63.24	7.36	23.20	1.57	66.65	4.26
Low level EMF	23.29	1.67	60.52	5.38	22.29	2.05	61.91	7.56
	F value 380.721 P value < 0.001		F value 171.228 P value < 0.001		F value 372.716 P value < 0.001		F value 556.411 P value < 0.001	

Abbreviations

AD: Alzheimer’s disease

MS: Multiple sclerosis

NHL: Non-hodgkin’s lymphoma

DM: Diabetes mellitus

AIDS: Acquired immunodeficiency syndrome

CJD: Creutzfeldt-Jakob’s disease

Section 2: Patient Study

Table 1

Group	RBC Digoxin (ng/ml RBC Susp)		Cytochrome F420		HERV RNA (ug/ml)		H_2O_2 (umol/ml RBC)		NOX (OD diff/hr / mgpro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
NO/BHCD	0.58	0.07	1.00	0.00	17.75	0.72	177.43	6.71	0.012	0.001
RHCD	1.41	0.23	4.00	0.00	55.17	5.85	278.29	7.74	0.036	0.008
LHCD	0.18	0.05	0.00	0.00	8.70	0.90	111.63	5.40	0.007	0.001
Schizo	1.38	0.26	4.00	0.00	51.17	3.65	274.88	8.73	0.036	0.009
Seizure	1.23	0.26	4.00	0.00	50.04	3.91	278.90	11.20	0.038	0.007
HD	1.34	0.31	4.00	0.00	51.16	7.78	295.37	3.78	0.035	0.011
AD	1.10	0.08	4.00	0.00	51.56	3.69	277.47	10.90	0.036	0.007
MS	1.21	0.21	4.00	0.00	47.90	6.99	280.89	11.25	0.034	0.009
SLE	1.50	0.33	4.00	0.00	48.20	5.53	278.59	11.51	0.038	0.008
NHL	1.26	0.23	4.00	0.00	51.08	5.24	283.39	10.67	0.041	0.006
Glio	1.27	0.24	4.00	0.00	51.57	2.66	278.19	12.80	0.038	0.007
DM	1.35	0.26	4.00	0.00	51.98	5.05	280.89	10.58	0.041	0.005
CAD	1.22	0.16	4.00	0.00	50.00	5.91	280.89	13.79	0.038	0.009
CVA	1.33	0.27	4.00	0.00	51.06	4.83	287.33	9.47	0.037	0.007
AIDS	1.31	0.24	4.00	0.00	50.15	6.96	278.58	12.72	0.039	0.010
CJD	1.48	0.27	4.00	0.00	49.85	6.40	286.16	10.90	0.039	0.006
Autism	1.19	0.24	4.00	0.00	52.87	7.04	274.52	9.29	0.036	0.006
DS	1.34	0.25	4.00	0.00	47.28	3.55	283.04	9.17	0.035	0.009
Cerebral Palsy	1.44	0.19	4.00	0.00	53.49	4.15	273.70	12.37	0.038	0.008
CRF	1.26	0.26	4.00	0.00	49.39	5.51	285.51	8.79	0.039	0.008
Cirr/Hep Fail	1.50	0.20	4.00	0.00	46.82	4.73	275.97	10.66	0.037	0.010
Muc Angio	1.40	0.32	4.00	0.00	46.37	4.87	290.37	9.10	0.039	0.010
EMF	1.51	0.29	4.00	0.00	47.47	4.34	287.49	9.81	0.035	0.008
CCP	1.35	0.22	4.00	0.00	48.54	5.97	277.50	7.51	0.040	0.006
Exposure to EMF	1.41	0.30	4.00	0.00	51.01	4.77	276.49	10.92	0.038	0.007
F value	60.288		0.001		194.418		713.569		44.896	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 2

Group	TNF ALP (pg/ml)		ALA (umol24)		PBG (umol24)		Uroporphyrin (nmol24)		Coproporphyrin (nmol/24)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
NO/BHCD	17.94	0.59	15.44	0.50	20.82	1.19	50.18	3.54	137.94	4.75
RHCD	78.63	5.08	63.50	6.95	42.20	8.50	250.28	23.43	389.01	54.11
LHCD	9.29	0.81	3.86	0.26	12.11	1.34	9.51	1.19	64.33	13.09
Schizo	78.23	7.13	66.16	6.51	42.50	3.23	267.81	64.05	401.49	50.73
Seizure	79.28	4.55	68.28	6.02	46.54	4.55	290.44	57.65	436.71	52.95
HD	82.13	3.97	67.30	5.98	47.25	4.19	286.84	24.18	432.22	50.11
AD	79.65	5.57	67.32	5.40	49.83	3.45	259.61	33.18	433.17	45.61
MS	80.18	5.67	64.00	7.33	46.85	3.49	277.36	15.48	440.35	25.34
SLE	81.03	6.22	65.01	5.42	48.55	3.81	294.51	58.62	447.39	39.84
NHL	77.98	5.68	63.21	6.55	47.17	4.86	310.25	40.44	495.98	39.11
Glio	79.18	5.88	67.67	5.69	46.84	4.43	304.19	14.16	479.35	58.86
DM	78.36	6.68	64.72	6.81	48.15	3.36	285.46	29.46	422.27	33.86
CAD	78.15	3.72	66.66	7.77	47.00	3.81	314.01	17.82	426.14	24.28
CVA	77.59	5.24	69.02	4.86	46.33	4.01	320.85	24.73	402.16	33.80
AIDS	79.17	5.88	67.78	4.41	48.03	3.64	306.61	22.47	429.72	24.97
CJD	80.41	5.70	66.99	3.71	47.94	5.33	317.92	29.63	429.24	18.29
Autism	76.71	5.25	68.16	4.92	42.04	2.38	318.84	82.90	423.29	47.57
DS	80.30	6.65	64.99	6.72	45.69	4.18	258.33	37.85	421.52	36.57
Cerebral Palsy	80.02	6.82	65.56	6.28	44.58	4.52	280.16	26.14	431.39	28.88
CRF	81.36	5.37	67.61	5.55	46.81	4.62	301.78	48.22	427.57	33.55
Cirr/Hep Fail	77.61	4.42	66.28	6.55	48.23	2.36	276.51	16.66	436.44	25.65
Muc Angio	79.38	5.14	67.86	5.65	44.08	2.81	303.86	13.91	441.58	25.51
EMF	80.04	4.69	64.76	5.23	44.82	3.46	300.90	31.96	443.22	38.14
CCP	80.34	4.73	66.68	4.14	48.70	3.35	287.09	15.63	442.85	49.61
Exposure to EMF	76.41	5.96	68.41	5.53	47.27	3.42	288.21	26.17	444.94	38.89
F value	427.654		295.467		183.296		160.533		279.759	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 3

Group	Protoporphyrin (Ab unit)		Heme (uM)		Bilirubin (mg/dl)		Biliverdin (Ab unit)		ATP Synthase (umol/gHb)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
NO/BHCD	10.35	0.38	30.27	0.81	0.55	0.02	0.030	0.001	0.36	0.13
RHCD	42.46	6.36	12.47	2.82	1.70	0.20	0.067	0.011	2.73	0.94
LHCD	2.64	0.42	50.55	1.07	0.21	0.00	0.017	0.001	0.09	0.01
Schizo	44.30	2.66	12.82	2.40	1.74	0.08	0.073	0.013	2.66	0.58
Seizure	49.59	1.70	13.03	0.70	1.84	0.07	0.070	0.015	3.09	0.65
HD	49.36	4.18	11.81	0.80	1.83	0.09	0.071	0.014	3.34	0.84
AD	49.68	3.30	12.09	1.12	1.77	0.13	0.073	0.016	3.34	0.75
MS	50.81	3.21	11.87	1.84	1.81	0.10	0.079	0.007	3.05	0.52
SLE	52.94	3.67	12.95	1.53	1.82	0.08	0.061	0.006	2.85	0.34
NHL	54.80	4.04	11.76	1.37	1.84	0.08	0.077	0.011	3.01	0.55
Glio	53.73	5.34	13.68	1.67	1.76	0.11	0.073	0.012	2.70	0.62
DM	49.80	4.01	12.83	2.07	1.77	0.19	0.067	0.014	3.19	0.89
CAD	49.51	2.27	11.39	1.10	1.75	0.12	0.080	0.007	2.99	0.65
CVA	46.74	4.28	11.26	0.95	1.82	0.10	0.079	0.009	2.98	0.78
AIDS	49.32	5.13	11.60	1.23	1.79	0.08	0.072	0.013	3.29	0.63
CJD	50.02	4.58	11.76	1.32	1.82	0.09	0.066	0.009	3.21	0.95
Autism	47.50	2.87	12.37	2.09	1.83	0.16	0.072	0.014	2.67	0.80
DS	50.97	7.07	11.81	1.14	1.85	0.07	0.071	0.015	3.15	0.73
Cerebral Palsy	49.23	3.91	11.61	1.36	1.85	0.09	0.069	0.012	3.14	0.46
CRF	49.66	4.41	12.03	1.40	1.76	0.22	0.070	0.012	3.14	0.57
Cirr/Hep Fail	50.56	1.63	11.92	1.33	1.81	0.10	0.076	0.009	3.01	0.47
Muc Angio	47.86	3.34	12.13	1.10	1.78	0.24	0.067	0.014	2.92	0.55
EMF	51.37	4.86	12.61	2.00	1.79	0.07	0.074	0.009	3.12	0.60
CCP	50.36	3.49	12.01	1.53	1.84	0.07	0.073	0.011	3.15	0.46
Exposure to EMF	50.59	1.71	12.36	1.26	1.75	0.22	0.073	0.013	3.39	1.03
F value	424.198		1472.05		370.517		59.963		54.754	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 4

Group	SE ATP (umol/dl)		Cyto C (ng/ml)		Lactate (mg/dl)		Pyruvate (umol/l)		RBC Hexokinase (ug glu phos/ hr/mgpro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
NO/BHCD	0.42	0.11	2.79	0.28	7.38	0.31	40.51	1.42	1.66	0.45
RHCD	2.24	0.44	12.39	1.23	25.99	8.10	100.51	12.32	5.46	2.83
LHCD	0.02	0.01	1.21	0.38	2.75	0.41	23.79	2.51	0.68	0.23
Schizo	1.26	0.19	11.58	0.90	22.07	1.06	96.54	9.96	7.69	3.40
Seizure	1.66	0.56	12.06	1.09	21.78	0.58	90.46	8.30	6.29	1.73
HD	1.27	0.26	12.65	1.06	24.28	1.69	95.44	12.04	9.30	3.98
AD	2.06	0.19	11.94	0.86	22.04	0.64	97.26	8.26	8.46	3.63
MS	1.63	0.26	11.81	0.67	23.32	1.10	102.48	13.20	8.56	4.75
SLE	1.59	0.22	11.73	0.56	23.06	1.49	100.51	9.79	8.02	3.01
NHL	1.73	0.26	11.91	0.49	22.83	1.24	95.81	12.18	7.41	4.22
Glio	1.48	0.32	13.00	0.42	22.20	0.85	96.58	8.75	7.82	3.51
DM	1.97	0.11	12.95	0.56	25.56	7.93	96.30	10.33	7.05	1.86
CAD	1.57	0.37	11.51	0.47	22.83	0.82	97.29	12.45	8.88	3.09
CVA	1.49	0.27	12.74	0.80	23.03	1.26	103.25	9.49	7.87	2.72
AIDS	1.59	0.38	12.29	0.89	24.87	4.14	95.55	7.20	9.84	2.43
CJD	1.69	0.43	12.19	1.22	23.02	1.61	96.50	5.93	8.81	4.26
Autism	2.03	0.12	12.48	0.79	21.95	0.65	92.71	8.43	6.95	2.02
DS	1.17	0.11	12.79	1.15	23.69	2.19	91.81	4.12	8.68	2.60
Cerebral Palsy	1.56	0.39	12.14	1.30	23.12	1.81	95.33	11.78	7.92	3.32
CRF	1.53	0.33	12.66	1.01	23.42	1.20	97.38	10.76	7.75	3.08
Cirr/Hep Fail	1.32	0.26	12.81	0.90	26.20	5.29	97.77	13.24	8.99	3.27
Muc Angio	1.35	0.29	12.84	0.74	23.64	1.43	96.19	12.15	10.12	1.75
EMF	1.56	0.48	12.72	0.92	25.35	5.52	103.32	13.04	9.44	3.40
CCP	1.51	0.38	12.23	0.94	23.66	1.64	94.36	8.06	8.53	2.64
Exposure to EMF	1.37	0.27	12.26	1.00	23.31	1.46	103.28	11.47	7.58	3.09
F value	67.588		445.772		162.945		154.701		18.187	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 5

Group	ACOA (mg/dl)		ACH (ug/ml)		Glutamate (mg/dl)	
	Mean	± SD	Mean	± SD	Mean	± SD
NO/BHCD	8.75	0.38	75.11	2.96	0.65	0.03
RHCD	2.51	0.36	38.57	7.03	3.19	0.32
LHCD	16.49	0.89	91.98	2.89	0.16	0.02
Schizo	2.51	0.57	48.52	6.28	3.41	0.41
Seizure	2.15	0.22	33.27	5.99	3.67	0.38
HD	1.95	0.06	35.02	5.85	3.14	0.32
AD	2.19	0.15	42.84	8.26	3.53	0.39
MS	2.03	0.09	39.99	12.61	3.58	0.36
SLE	2.54	0.38	49.30	7.26	3.37	0.38
NHL	2.30	0.26	50.58	3.82	3.48	0.46
Glio	2.34	0.43	42.51	11.58	3.28	0.39
DM	2.17	0.40	41.31	10.69	3.53	0.44
CAD	2.37	0.44	49.19	6.86	3.61	0.28
CVA	2.25	0.44	37.45	7.93	3.31	0.43
AIDS	2.11	0.19	38.40	7.74	3.45	0.49
CJD	2.10	0.27	34.97	4.24	3.94	0.22
Autism	2.42	0.41	50.61	6.32	3.30	0.32
DS	2.01	0.08	39.34	8.15	3.30	0.48
Cerebral Palsy	2.06	0.35	40.79	9.34	3.24	0.34
CRF	2.24	0.32	37.52	4.37	3.26	0.43
Cirr/Hep Fail	2.13	0.17	46.20	4.95	3.25	0.40
Muc Angio	2.51	0.42	45.51	7.56	3.11	0.36
EMF	2.19	0.19	42.48	8.62	3.27	0.39
CCP	2.04	0.10	37.95	8.82	3.33	0.25
Exposure to EMF	2.14	0.19	37.75	7.31	3.47	0.37
F value	1871.04		116.901		200.702	
P value	< 0.001		< 0.001		< 0.001	

Table 6

Group	Se. Ammonia (ug/dl)		HMG Co A (HMG CoA/MEV)		Bile Acid (mg/ml)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
NO/BHCD	50.60	1.42	1.70	0.07	79.99	3.36
RHCD	93.43	4.85	1.16	0.10	25.68	7.04
LHCD	23.92	3.38	2.21	0.39	140.40	10.32
Schizo	94.72	3.28	1.11	0.08	22.45	5.57
Seizure	95.61	7.88	1.14	0.07	22.98	5.19
HD	94.60	8.52	1.08	0.13	28.93	4.93
AD	95.37	4.66	1.10	0.07	26.26	7.34
MS	93.42	3.69	1.13	0.08	24.12	6.43
SLE	101.18	17.06	1.14	0.07	19.62	1.97
NHL	91.62	3.24	1.12	0.10	23.45	5.01
Glio	93.20	4.46	1.10	0.09	23.43	6.03
DM	93.38	7.76	1.09	0.12	22.77	4.94
CAD	93.93	4.86	1.07	0.12	24.55	6.26
CVA	103.18	27.27	1.05	0.09	22.39	3.35
AIDS	92.47	3.97	1.08	0.11	23.28	5.81
CJD	93.13	5.79	1.09	0.12	21.26	4.81
Autism	94.01	5.00	1.12	0.06	23.16	5.78
DS	98.81	15.65	1.09	0.11	21.31	4.49
Cerebral Palsy	92.09	3.21	1.07	0.09	22.80	5.02
CRF	98.76	11.12	1.03	0.10	26.47	5.30
Cirr/Hep Fail	94.77	2.86	1.04	0.10	24.91	5.06
Muc Angio	92.40	4.34	1.12	0.08	24.37	4.38
EMF	95.37	5.76	1.08	0.08	25.17	3.80
CCP	93.42	5.34	1.01	0.09	23.87	4.00
Exposure to EMF	102.62	26.54	1.00	0.07	22.58	5.07
F value	61.645		159.963		635.306	
P value	< 0.001		< 0.001		< 0.001	

Abbreviations

NO/BHCD: Normal/Bi-hemispheric chemical dominance

RHCD: Right hemispheric chemical dominance

LHCD: Left hemispheric chemical dominance

HD: Huntington's disease

AD: Alzheimer's disease

MS: Multiple sclerosis

SLE: Systemic lupus erythematosis

NHL: Non-hodgkin's lymphoma

Glio- Glioma

DM: Diabetes mellitus

CAD: Coronary artery disease

CVA: Cerebrovascular accident

AIDS: Acquired immunodeficiency syndrome

CJD: Creutzfeldt-Jakob's disease

DS: Down syndrome

CRF: Chronic renal failure

Cirr/Hep Fail- Cirrhosis/Hepatic failure

EMF: Endomyocardial fibrosis

CCP: Chronic calcific pancreatitis

Discussion

There was increase in cytochrome F420 indicating archaeal growth. The archaea can synthesize and use cholesterol as a carbon and energy source.[2, 10] The archaeal origin of the enzyme activities was indicated by antibiotic induced suppression. The study indicates the presence of actinide based archaea with an alternate actinide based enzymes or metalloenzymes in the system as indicated by rutile induced increase in enzyme activities.[11] The archaeal beta hydroxyl steroid dehydrogenase activity indicating digoxin synthesis.[12] The archaeal cholesterol oxidase activity was increased resulting in generation of pyruvate and hydrogen peroxide.[10] The pyruvate gets converted to glutamate and ammonia by the GABA shunt pathway. The pyruvate is converted to glutamate by serum glutamate pyruvate transaminase. The glutamate gets acted upon by glutamate dehydrogenase to generate alpha ketoglutarate and ammonia. Alanine is most commonly produced by the reductive amination of pyruvate via alanine transaminase. This reversible reaction involves the interconversion of alanine and pyruvate, coupled to the interconversion of alpha-ketoglutarate (2-oxoglutarate) and glutamate. Alanine can contribute to glycine. Glutamate is acted upon by Glutamic acid decarboxylase to generate GABA. GABA is converted to succinic semialdehyde by GABA transaminase. Succinic semialdehyde is converted to succinic acid by succinic semialdehyde dehydrogenase. Glycine combines with succinyl CoA to generate delta aminolevulinic acid catalysed by the enzyme ALA synthase. There was upregulated archaeal porphyrin synthesis in the patient population which was archaeal in origin as indicated by actinide catalysis of the reactions. The cholesterol oxidase pathway generated pyruvate which entered the GABA shunt pathway. This resulted in synthesis of succinate and glycine which are substrates for ALA synthase. The archaea can undergo magnetite and calcium carbonate mineralization and can exist as calcified nanoforms.[13]

Low level electromagnetic fields and its porphyrin messengers can regulate the brain mediating conscious and quantal perception. Porphyrin microarrays serve the purpose of quantal and conscious perception. The archaea and viroids via porphyrin synthesis can regulate the nervous system including the NMDA/GABA thalamocorticothalamic pathway mediating conscious perception. Porphyrin photo-oxidation can generate free radicals which can modulate NMDA transmission. Free radicals can increase NMDA transmission. Free radicals can induce GAD and increase GABA synthesis. ALA blocks GABA transmission and upregulates NMDA. Protoporphyrins bind to GABA receptor and promote GABA transmission. Thus porphyrins can modulate the thalamo-cortico-thalamic pathway of conscious perception. The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrin molecules have a wave particle existence and can bridge the dividing line between quantal state and particulate state. Thus the porphyrins can mediate conscious and quantal perception. Porphyrins binding to proteins, nucleic acids and cell membranes can produce biophoton emission. Porphyrins by autooxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Cellular porphyrins photooxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Thus porphyrin microarrays can function as a quantal computer mediating extrasensory perception. Porphyrin microarrays in human systems and brain owing to the wave particle nature of porphyrins can bridge the quantal world and particulate world. The porphyrins can modulate hemispheric dominance. There is increased porphyrin synthesis and RHCD and decreased porphyrin

synthesis in LHCD. The increase in archaeal porphyrins can contribute to the pathogenesis of schizophrenia and autism. Porphyria can lead to psychiatric disorders and seizures. Altered porphyrin metabolism has been described in autism. Porphyrins by modulating conscious and quantal perception is involved in the pathogenesis of schizophrenia and autism.[3, 4, 16] Thus porphyrins microarrays can function as a quantal brain modulating extrasensory quantal perception. Porphyrin microarrays can function as a quantal brain in communication with digital world and geomagnetic fields.

The dipolar porphyrins in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the macroscopic world. ALA can produce sodium potassium ATPase inhibition resulting in a pumped phonon system mediated quantal state involving dipolar porphyrins. Porphyrins by autooxidation can generate biophotons and are involved in quantal perception. Biophotons can mediate quantal perception. Porphyrin autooxidation is modulated by low level of electromagnetic fields and geomagnetic fields. Cellular porphyrins photo-oxidation are involved in sensing of earth magnetic fields and low level biomagnetic fields. Porphyrins can thus contribute to quantal perception. Low level electromagnetic fields and light can induce porphyrin synthesis. Low level EMF can produce ferrochelatase inhibition as well as heme oxygenase induction contributing to heme depletion, ALA synthase induction and increased porphyrin synthesis. Light also induces ALA synthase and porphyrin synthesis. The increased porphyrin synthesized can contribute to increased quantal perception and can modulate conscious perception. The human porphyrin microarrays induced biophotons and quantal fields can modulate the source from which low level EMF and photic fields were generated. Thus the porphyrin generated by extraneous low level EMF and photic

fields can interact with the source of low level EMF and photic fields modulating it. Thus porphyrins can serve as a bridge between the human brain and the source of low level EMF and photic fields. This serves as a mode of communication between the human brain and digital EMF storage devices like internet. The porphyrins can also serve as the source of communication with the environment. Environmental EMF and chemicals produce heme oxygenase induction and heme depletion increasing porphyrin synthesis, quantal perception and two-way communication. Thus induction of porphyrin synthesis can serve as a mechanism of communication between human brain and the environment by extrasensory perception. Porphyrin microarrays can function as quantal computers storing information and can serve the purpose of extrasensory perception. Porphyrins can serve as a two way communicating bridge between digital information storage systems generating low level electromagnetic fields and human systems. The low level of EMF produced by digital system enhances porphyrin synthesis and serves the purpose of two way extrasensory perception and communication. The human porphyrin quantal computers can in turn by biophoton emission modulate digital information storage system.

Low level of electromagnetic fields and its porphyrin messengers can induce the Warburg phenotype. An actinide dependent shadow biosphere of archaea and viroids in the above mentioned disease states is described. The archaea can synthesize porphyrins and induce porphyrin synthesis. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Porphyrins can mediate the effect of low level electromagnetic fields inducing the Warburg phenotype leading to the above mentioned disease states. The Warburg phenotype results in inhibition of pyruvate dehydrogenase and the TCA cycle. The pyruvate enters the GABA shunt pathway where it is converted to succinyl CoA. The glycolytic pathway is upregulated and the glycolytic metabolite

phosphoglycerate is converted to serine and glycine. Glycine and succinyl CoA are the substrates for ALA synthesis. The archaea induces the enzyme heme oxygenase. Heme oxygenase converts heme to bilirubin and biliverdin. This depletes heme from the system and results in upregulation of ALA synthase activity resulting in porphyria. Heme inhibits HIF alpha. The heme depletion results in upregulation of HIF alpha activity and further strengthening of the Warburg phenotype. The porphyrin self oxidation results in redox stress which activates HIF alpha and generates the Warburg phenotype. The Warburg phenotype results in channeling acetyl CoA for cholesterol synthesis as the TCA cycle and mitochondrial oxidative phosphorylation are blocked. The archaea uses cholesterol as an energy substrate. Porphyrin and ALA inhibits sodium potassium ATPase. This increases cholesterol synthesis by acting upon intracellular SREBP. The cholesterol is metabolized to pyruvate and then the GABA shunt pathway for ultimate use in porphyrin synthesis. The porphyrins can self organize and self replicate into macromolecular arrays. The porphyrin arrays behave like an autonomous organism and can have intramolecular electron transport generating ATP. The porphyrin macroarrays can store information and can have quantal perception. The porphyrin macroarrays serves the purpose of archaeal energetics and sensory perception. The Warburg phenotype is associated with malignancy, autoimmune disease and metabolic syndrome x. Low level electromagnetic fields can induce the Warburg phenotype contributing to human disease.

The role of porphyrins and low level electromagnetic fields in regulation of cell functions and neuro-immuno-endocrine integration is discussed. Low levels of EMF fields can induce digoxin synthesis. Protoporphyrin binds to the peripheral benzodiazepine receptor regulating steroid and digoxin synthesis. Increased porphyrin metabolites can contribute to hyperdigoxinemia. Digoxin can modulate the neuro-immuno-endocrine system. Low level of EMF fields can modulate membrane, nucleic acid and protein structure and function via induction of

porphyrin synthesis. Porphyrins can combine with membranes modulating membrane function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their function. Porphyrin interpolating with DNA can alter transcription and generate HERV expression. Low level of EMF fields through modulation of porphyrin metabolism can produce heme deficiency by inhibiting heme oxygenase and ferrochelatase. Heme deficiency can also result in disease states. Heme deficiency results in deficiency of heme enzymes. There is deficiency of cytochrome C oxidase and mitochondrial dysfunction. The glutathione peroxidase is dysfunctional and the glutathione system of free radical scavenging does not function. The cytochrome P450 enzymes involved in steroid and bile acid synthesis have reduced activity leading to steroid- cortisol and sex hormones as well as bile acid deficiency states. The heme deficiency results in dysfunction of nitric oxide synthase, heme oxygenase and cysthathione beta synthase resulting in lack of gasotransmitters regulating the vascular system and NMDA receptor- NO, CO and H_2S. Heme has got cytoprotective, neuroprotective, anti-inflammatory and antiproliferative effects. Heme is also involved in the stress response. Heme deficiency leads to metabolic syndrome, immune disease, degenerations and cancer.[3-5] Low level electromagnetic fields can modulate cell functions and neuro-immuno-endocrine-genetic integration via induction of porphyrin synthesis.

Low level electromagnetic fields via modulating porphyrin metabolism can produce an autonomic neuropathy. Protoporphyrins block acetyl choline transmission producing a vagal neuropathy with sympathetic overactivity. Vagal neuropathy results in immune activation, vasospasm and vascular disease. A vagal neuropathy underlines neoplastic and autoimmune processes as well as metabolic syndrome x. Low level electromagnetic fields by modulating porphyrin metabolism can induce cell death. Porphyrin induced increased

NMDA transmission and free radical injury can contribute to neuronal degeneration. Free radicals can produce mitochondrial PT pore dysfunction. This can lead to cyto C leak and activation of the caspase cascade leading to apoptosis and cell death. Altered porphyrin metabolism has been described in Alzheimer's disease. The increased porphyrin photo-oxidation generated free radicals mediated NMDA transmission can also contribute to epileptogenesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate brain function and cell death.[3, 4, 16]

Low level electromagnetic fields by modulating porphyrin metabolism can generate redox stress to regulate cell functions. The porphyrins can undergo photo-oxidation and autooxidation generating free radicals. The archaeal porphyrins can produce free radical injury. Free radicals produce NFKB activation, open the mitochondrial PT pore resulting in cell death, produce oncogene activation, activate NMDA receptor and GAD enzyme regulating neurotransmission and generates the Warburg phenotypes activating glycolysis and inhibiting TCA cycle/oxphos. Porphyrins have been related to schizophrenia, metabolic syndrome x, malignancy, systemic lupus erythematosis, multiple sclerosis and Alzheimer's diseases. Low level electromagnetic fields by modulating porphyrin metabolism can regulate cell membrane sodium potassium ATPase. The porphyrins can complex and intercalate with the cell membrane producing sodium potassium ATPase inhibition adding on to digoxin mediated inhibition. Porphyrins can complex with proteins and nucleic acid producing biophoton emission. Low level electromagnetic fields by modulating porphyrin metabolism can regulate DNA, RNA and protein structure and function. Porphyrins complexing with proteins can modulate protein structure and function. Porphyrins complexing with DNA and RNA can modulate transcription and translation. Low level electromagnetic fields by modulating porphyrin metabolism can regulate mitochondrial function, peripheral benzodiazepine

receptor and steroidogenesis. The porphyrin especially protoporphyrins can bind to peripheral benzodiazepine receptors in the mitochondria and modulate its function, mitochondrial cholesterol transport and steroidogenesis. Peripheral benzodiazepine receptor modulation by protoporphyrins can regulate cell death, cell proliferation, immunity and neural functions. Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can regulate enzyme systems. The porphyrin photo-oxidation generates free radicals which can modulate enzyme function. Redox stress modulated enzymes include pyruvate dehydrogenase, nitric oxide synthase, cystathione beta synthase and heme oxygenase. Free radicals can modulate mitochondrial PT pore function. Free radicals can modulate cell membrane function and inhibit sodium potassium ATPase activity. Thus the porphyrins are key regulatory molecules modulating all aspects of cell function.[3-5] Low level of electromagnetic fields by modulating porphyrin metabolism can induce viroidal and HERV expression. There was an increase in free RNA indicating self replicating RNA viroids and free DNA indicating generation of viroid complementary DNA strands by archaeal reverse transcriptase activity. The actinides and porphyrins modulate RNA folding and catalyse its ribozymal action. Digoxin can cut and paste the viroidal strands by modulating RNA splicing generating RNA viroidal diversity. The viroids are evolutionarily escaped archaeal group I introns which have retrotransposition and self splicing qualities. Porphyrin photooxidation induced redox stress can produce HDAC inhibition. Archaeal pyruvate producing histone deacetylase inhibition and porphyrins intercalating with DNA can produce endogenous retroviral (HERV) reverse transcriptase and integrase expression. This can integrate the RNA viroidal complementary DNA into the noncoding region of eukaryotic non coding DNA using HERV integrase as has been described for borna and ebola viruses. The archaea and viroids can also induce cellular porphyrin synthesis. Bacterial and viral infections can precipitate porphyria. Thus

porphyrins can regulate genomic function. The increased expression of HERV RNA can result in acquired immunodeficiency syndrome, autoimmune disease, neuronal degenerations, schizophrenia and malignancy.[14, 15]

Low level electromagnetic fields by modulating porphyrin metabolism and generating redox stress can produce immune activation. The porphyrin photo-oxidation can generate free radicals which can activate NFKB. This can produce immune activation and cytokine mediated injury. The increase in archaeal porphyrins can lead to autoimmune disease like SLE and MS. A hereditary form of MS and SLE related to altered porphyrin metabolism has been described. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate immune function. Porphyrins can combine with proteins oxidizing their tyrosine, tryptophan, cysteine and histidine residues producing crosslinking and altering protein conformation and function. Porphyrins can complex with DNA and RNA modulating their structure. Porphyrin complexed with proteins and nucleic acids are antigenic and can lead onto autoimmune disease.[3, 4] Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress can produce insulin resistance. The porphyrin photo-oxidation mediated free radical injury can lead to insulin resistance and atherogenesis. Thus archaeal porphyrins can contribute to metabolic syndrome x. Glucose has got a negative effect upon ALA synthase activity. Therefore hyperglycemia may be reactive protective mechanism to increased archaeal porphyrin synthesis. The protoporphyrins binding to mitochondrial benzodiazepine receptors can modulate mitochondrial steroidogenesis and metabolism. Altered porphyrin metabolism has been described in the metabolic syndrome x. Porphyrias can lead onto vascular thrombosis.[3, 4] Low level electromagnetic fields by modulating porphyrin metabolism and inducing redox stress/heme deficiency can activate HIF alpha. The porphyrin photo-oxidation can generate free radicals inducing HIF alpha and

producing oncogene activation. Heme deficiency can lead to activation of HIF alpha and oncogenesis. This can lead to oncogenesis. Hepatic porphyrias induced hepatocellular carcinoma. The protoporphyrins binding to mitochondrial benzodiazepine receptors can regulate cell proliferation.[3, 4] Low level electromagnetic fields by modulating porphyrin metabolism can regulate prion protein conformation. The porphyrin can combine with prion proteins modulating their conformation. This leads to abnormal prion protein conformation and degradation. Archaeal porphyrins can contribute to prion disease. Low level electromagnetic fields by modulating porphyrin metabolism can produce redox stress and regulate HERV expression. The porphyrins can also intercalate with DNA producing HERV expression. The HERV particles generated can contribute to the retroviral state. The porphyrins in the blood can combine with bacteria and viruses and the photo-oxidation generated free radicals can kill them. Low level electromagnetic fields by modulating porphyrin metabolism can lead to increase predilection for viral and bacterial infections. The archaeal porphyrins can modulate bacterial and viral infections. The archaeal porphyrins are regulatory molecules keeping other prokaryotes and viruses on check.[3, 4]

The metal actinides provide radiolytic energy, catalysis for oligomer formation and provide a coordinating ion for metalloenzymes all important in abiogenesis[6]. The metal actinide surfaces would by surface metabolism generate porphyrins from simple compounds like succinic acid and glycine. Porphyrins can exist as wave forms and particulate forms and can bridge the dividing line between the quantal world and particulate world. Porphyrin molecules can self organize into organisms with energy transduction, ATP synthesis and information storage with replicating capacity. A self replicating porphyrin microorganism may have played a role in the origin of life. Porphyrins can form templates on which macromolecules like polysaccharides, protein and nucleic acids can form. The macromolecules

generated on actinidic porphyrins templates would have contributed to the actinidic nanoarchaea and the original organisms on earth. The data supports the persistence of an actinidic archaeal shadow biosphere which throws light on the actinide based origin of life and porphyrins as the premier prebiotic molecule.[17, 18]

Porphyrins play an important role in the genesis of the biological universe. The porphyrin macroarrays can form in the interstellar space on its own as porphyrins can exist both as particles and waves. Porphyrins form the bridging connection between the quantal world and the particulate world. The self generated porphyrins from the quantal foam can self organize to form macroarrays, can store information and self replicate. This can be called as an abiotic porphyrin organism. The porphyrin template would have generated nucleic acids, proteins, polysaccharides and isoprenoids. This would have generated actinidic nanoarchaea in the interstellar space. The porphyrins have magnetic properties and the interstellar porphyrin organism can contribute to the interstellar grains and interstellar magnetic fields. The cosmic dust grains of porphyrin macroarrays/nanoarchaeal organism occupy the intergalactic space and are thought to be formed of magnetotactic bacteria identified according to their spectral signatures. According to the Hoyle's hypothesis, the cosmic dust magnetotactic porphyrin macroarrays/nanoarchaeal organism plays a role in the formation of the intergalactic magnetic field. A magnetic field equal in strength to about one millionth part of the magnetic field of earth exists throughout much of our galaxy. The magnetic files can be used to trace the spiral arms of the galaxy following a pattern of field lines that connect young stars and dust in which new stars are formed at a rapid rate. Studies have shown that a fraction of the dust particles have elongated shape similar to bacilli and they are systematically lined up in our galaxy. Moreover the direction of alignment is such that the long axes of the dust tend to be at right angles to the direction of the galactic magnetic field at every point. Magnetotactic porphyrin macroarrays/nanoarchaeal organism have the property to

affect the degree of alignment that is observed. The fact that the magnetotactic porphyrin macroarrays/nanoarchaeal organisms appear to be connected to the magnetic field lines that thread through the spiral arms of the galaxy connecting one region of star formation to another support a role for them in star formation and in the mass distribution and rotation of stars. The nutrient supply for a population of interstellar porphyrin macroarrays/nanoarchaeal organisms comes from mass flows out of supernovas populating the galaxy. Giants arising in the evolution of such stars experience a phenomenon in which material containing nitrogen, carbon monoxide, hydrogen, helium, water and trace elements essential for life flows continuously outward into space. The interstellar organisms need liquid water. Water exists only as vapour or solid in the interstellar space and only through star formation leading to associated planets and cometary bodies can there be access to liquid water. To control conditions leading to star formation is of paramount importance in cosmic biology. The rate of star formation is controlled by two factors: Too high a rate of star formation produces a destructive effect of UV radiation and destroys cosmic biology. Star formation as stated before produces water crucial for organism growth. Cosmic biology of magnetotactic organisms and star formation are thus closely interlinked. Systems like solar systems do not arise in random condensation of blobs of interstellar gas. Only by a rigorous control of rotation of various parts of the system would galaxies and solar system evolved. The key to maintaining control over rotation seems to lie in the intergalactic magnetic field as indeed the whole phenomena of star formation. The intergalactic magnetic fields owes its origin to the lining up of magnetotactic porphyrin macroarrays/nanoarchaeal organisms and the cosmic biology of interstellar organisms can prosper only by maintaining a firm grip on the interstellar magnetic field and hence on the rate of star formation and type of star system produced. This point to a cosmic intelligence or brain capable of computation, analysis and exploration of the universe at large- of magnetotactic

porphyrin macroarrays/nanoarchaeal organism networks. The origin of life on earth according to the Hoyle's hypothesis would be by seeding of porphyrin macroarrays/nanoarchaeal organism from the outer intergalactic space. The porphyrin organism can also be generated on actinidic surfaces in earth. Comets carrying porphyrin organisms would have interacted with the earth. A thin skin of graphitized material around a single porphyrin macroarrays/nanoarchaeal organism or clumps of organism can shield the interior from destruction by UV light. The sudden surge and diversification of species of plants and animals and their equally sudden extinction has seen from fossil records point to sporadic evolution produced by induction of fresh cometary genes with the arrival of each major new crop of comets. The porphyrin macroarrays organism can have a wave particle existence and bridge the world of bosons and fermions. The porphyrin macroarrays/nanoarchaeal organism can form biofilms and the porphyrin organism can form a molecular quantum computing cloud in the biofilm which forms an interstellar intelligence regulating the formation of star systems and galaxies. The porphyrin macroarrays/nanoarchaeal organism quantal computing cloud can bridge the wave particle world functioning as the anthropic observer sensing gravity which orchestrates the reduction of the quantal world of possibilities in to the macroscopic world. The actinide based porphyrin macroarrays/nanoarchaeal organism regulates the human system and biological universe.[19-21]

Porphyrins also have evolutionary significance since porphyria is related to Scythian races and contributes to the behavioural and intellectual characteristics of this group of population. Porphyrins can intercalate into DNA and produce HERV expression. HERV RNA can get converted to DNA by reverse transcriptase which can get integrated into DNA by integrase. This tends to increase the length of the non coding region of the DNA. The increase in non coding region of the DNA is involved in primate and human evolution. Thus, increased rates of porphyrin synthesis would correlate with increase in non

coding DNA length. The alteration in the length of the non coding region of the DNA contributes to the dynamic nature of the genome. Thus genetic and acquired porphyrias can lead to alteration in the non coding region of the genome. The alteration of the length of the non coding region of the DNA contributes to the racial and individual differences in populations. An increased length of non coding region as well as increased porphyrin synthesis leads to increased cognitive and creative neuronal function. Porphyrins are involved in quantal perception and regulation of the thalamo-cortico-thalamic pathway of conscious perception. Thus genetic and acquired porphyrias contribute to higher cognitive and creative capacity of certain races. Porphyrias are common among Eurasian Scythian races who have assumed leadership roles in communities and groups. Porphyrins have contributed to human and primate evolution.[3, 4] The increased porphyrin synthesis in the scythian races contributes to higher level of extrasensory quantal perception in this racial group. This contributes to higher level of cognitive and spiritual function of the brain in this racial group.

The porphyrins can contribute to the role of low level electromagnetic fields in the pathogenesis of metabolic syndrome x, malignancy, psychiatric disorders, autoimmune disease, AIDS, prion disease, neuronal degeneration and epileptogenesis. An actinide dependent shadow biosphere of archaea and viroids in the above mentioned disease states- metabolic syndrome x, malignancy, psychiatric disorders, autoimmune disease, AIDS, prion disease, neuronal degeneration and epileptogenesis is described. Archaeal porphyrin synthesis and induction of endogenous porphyrin synthesis is crucial in the pathogenesis of these disorders. Porphyrins may serve as regulatory molecules modulating immune, neural, endocrine, metabolic and genetic systems. The porphyrins photo-oxidation generated free radicals can produce immune activation, produce cell death, activate cell proliferation, produce insulin resistance and modulate conscious/quantal perception. Porphyrins can regulate hemispheric dominance.

The archaeal porphyrins functions as key regulatory molecules with mitochondrial benzodiazepine receptors playing an important role. Thus the porphyrins contributes to the inducing role of low level electromagnetic fields in the pathogenesis of metabolic syndrome x, malignancy, psychiatric disorders, autoimmune disease, AIDS, prion disease, neuronal degeneration and epileptogenesis. Low level electromagnetic fields and its porphyrin messengers can regulate immune, neural, endocrine, metabolic and genetic systems.[3, 4] A hypothesis regarding the role of porphyrins and quantal perception as well as the role of porphyrins in environmental communication/ modulation of digital information storage/processing system is presented. Thus porphyrin microarrays can function as a quantal computer mediating extrasensory perception. Porphyrin microarrays in human systems and brain owing to the wave particle nature of porphyrins can bridge the quantal world and particulate world. The relationship between low level of electromagnetic fields and human disease is highlighted.

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3

A Biological Basis for Philosophy, Economics, History, Politics, Literature, Social Movements, Feminism, Alternate Sexuality and Globalisation

Introduction

The homo neanderthalis society was matrilineal and the homo sapien society was patrilineal. The homo neanderthalis as described in previous papers had increased actinidic archaeal growth and archaeal magnetite/porphyrin mediated quantal perception. This gave a feeling of collective unconscious and universal oneness. The homo sapiens had decreased actinidic archaeal growth and archaeal magnetite/porphyrin mediated quantal perception was minimal. This gave rise to individuality in homo sapiens as opposed to societal consciousness in homo neanderthalis. This is the biological basis of the features of homo neanderthalis society- primitive communism, socialism, democracy, female dominance, alternate sexuality, creativity in art and literature, spirituality, eco-consciousness, peaceful co-existence and a globalised world. The homo sapien society was selfish, primitive capitalistic, undemocratic, dictatorial, patriarchal, more masculine, less creative in art and literature, non-spiritual and material, heterosexual, exploitative, polluting, nationalistic and with an increased propensity to war. The phenomena of global warming leads to increased extremophilic actinidic archaeal growth and neanderthalization of homo sapiens leading to the resurgence of neanderthalic features in society. The study evaluated actinidic archaeal growth in individuals with different personal characteristic features of socialistic, capitalistic, democratic, dictatorial, feminist, male chauvinist, artistic, creative literary characters, alternate sexuality, eco-conscious, nationalistic and globalised outlook. The results are presented in this study.[1-16]

Materials and Methods

The blood samples were drawn from two groups (1) the neanderthalic

matrilineal population with outlook of altruism, primitive communism, socialism, democracy, female dominance, alternate sexuality, creativity in art and literature, spirituality, eco-consciousness, peaceful co-existence and a globalised world (2) the homo sapien patrilineal population with outlook of selfishness, primitive capitalistic, undemocratic, dictatorial, patriarchal, more masculine, less creative in art and literature, non-spiritual and material, heterosexual, exploitative, polluting, nationalistic and with an increased propensity to war. The estimations done in the blood samples collected include cytochrome F420 activity.

Results

The results showed that the population with neanderthalic features and characteristics of altruism, primitive communism, socialism, democracy, female dominance, matrilineal, alternate sexuality, creativity in art and literature, spirituality, eco-consciousness, peaceful co-existence and a globalised world had increased cytochrome F420 activity. The results showed that the population with homo sapien features and characteristics of selfishness, primitive capitalistic, undemocratic, dictatorial, patriarchal, more masculine, less creative in art and literature, non-spiritual and material, heterosexual, exploitative, polluting, nationalistic and with an increased propensity to war had increased cytochrome F420 activity.

Table 1. *Cytochrome F420 activity.*

		Neanderthalic	Homo sapien	F value	P value
CYT F420 % (Increase with Cerium)	Mean ± SD	23.46 1.87	4.48 0.15	306.749	< 0.001

Discussion

Neurobiology of Economics - Communism and Capitalism

The homo neanderthalis society and matriarchal societies had increased magnetite mediated quantal perception. There was a feeling of the collective unconscious and the oneness of the world. The individual existence was meagre. The society existed as a universal whole. This gives rise to the feeling of altruism, compassion and love. This resulted in a society where societal consciousness was dominant. There was a feeling of sharing and giving. This was the basis of primitive socialism and communism. There were no hierarchal structures and the society functioned on a commune basis. Eastern societies had a more communal and social basis.

The homo sapiens and patriarchal societies had decreased magnetite mediated quantal perception. There was no feeling of collective unconscious and oneness of the world. There was a feeling of individuality and self. The society existed for the individual or family. There was no feeling of altruism, compassion and love. Individuality and dog-eat-dog mentality was dominant. There was no feeling of sharing or giving. The aim was to amass wealth for the individual and the family. There were hierarchal structures and society functioned on the basis of wealth and privilege. This evolved into capitalism. Western societies had a capitalistic basis.[1-16]

Neurobiology of History and Politics

The homo neanderthalis had increased quantal perception. This gave rise to a feeling of oneness and equality. There were no hierarchal structures and there was a feeling of universal whole. This was exemplified in neanderthalic societies. Democracy evolved in the ancient Indian republics of the medieval age. The

Harappan society was also democratic. There was tolerance of minorities.

The homo sapiens had decreased quantal perception. There was more of individuality, selfishness and the need to control others. This gave rise to dictatorship, kingship and non-democratic structures. The Nazi Germany is an extreme example of the homo sapien behavior of selfishness and dictatorship. There was no tolerance of minorities as seen in the Nazi attitude to Jews who were neanderthalic in origin.[1-16]

Neurobiology of Social Organization, Feminist Movement and Alternate Sexuality

The homo neanderthalis had increased growth of cholesterol catabolizing archaea which gave rise to sex hormone deficiency and male-female equality. The homo neanderthalis had a matriarchal society with features of alternate sexuality with asexual features. There was female dominance and female leadership. There was increased quantal perception in the neanderthalic brain leading onto an equal society without hierarchy. This was a sort of primitive communism with sharing and compassion. There was no premium on individuality. There was less of consumerism and more of environmental consciousness. The environment had a soul. It was predominantly a give and take society. The society was equal and there was no apartheid. The invading homo sapiens, the Aryans imposed the caste society on the peace loving sudric Neanderthals. The Rigvedas contain vivid description of this war.

The homo sapiens had decreased growth of cholesterol catabolizing archaea which gave rise to increase in sex hormones and male dominance. The homo sapien society was a patriarchal society with male dominance and male leadership. It was predominantly heterosexual. There was decreased quantal perception leading onto a society in which individuality had a premium. This

gave rise to a capitalistic society and consumerism with very little environmental consciousness. The environment did not have a soul. It was predominantly a take-take society. The society was organized on a caste basis with homo neanderthalis as the underdog sudra and the homo sapiens as the ruling class. It was a form of apartheid.[1-16]

Neurobiology of Language, Literature and Art

The homo neanderthalis had increased archaeal infection. This gave rise to vocal tics and motor tics. The motor tics correlated with the vocal tics leading onto the evolution of language. Language evolved due to a possible epidemic la tourette syndrome. Later on literature evolved. The homo neanderthalis had increased quantal perception and extrasensory perception. This gave rise to the world of imagination and literature. Early literature evolved in Eastern neanderthalic societies.

The homo sapiens had less of archaeal infection and a less dominant tics syndrome. The evolution of language was less effective in homo sapiens. The homo sapiens had decreased quantal perception and extrasensory perception. The world of imagination and literature was less evolved in them.

The homo neanderthalis had prefrontal cortex atrophy and cerebellar dominance. This gave rise to appendicular and axial ataxia. This leads onto the evolution of abstract painting. Abstract painting was introduced by Picasso who belonged to the basque-celtic society which had a neanderthalic basis. The gait ataxia and appendicular ataxia gave rise to unsteadiness of hands and limbs which later on evolved into dance. The vocal tics lead onto music and the ataxic speech gave rise to the cadence of music. The Eastern societies gave a lead to dance, painting and music.

The homo sapiens had prefrontal cortex dominance and cerebellar atrophy.

There was no ataxia. Dance, music and painting were undeveloped in them. The Western societies tend to explore the field of music, dance and painting in less evolved way.[1-16]

Neurobiology of Religion, Society and Spirituality

The homo neanderthalis had increased quantal perception. There was a feeling of oneness of the world and the collective unconscious. This gave rise to the concept of Jungian archetypes. There was increased spirituality and a feeling of a universal soul. Eastern neanderthalic societies were more spiritual and full of universal Godliness.

The homo sapiens had decreased quantal perception. There was no feeling of oneness or the collective unconscious. There was no concept of the Jungian archetypes. There was a decreased spirituality and feeling of universal soul. Religion was more organized, hierarchal and a way of controlling society. It was religion without spirituality. This gave rise to wars on the basis of religion. The semitic societies had their crusades and the modern war on terror. There was no equal war based on religion in the Eastern world.[1-16]

Neurobiology of the Feminist Movement and Alternate Sexuality

The homo neanderthalis had increased growth of cholesterol catabolizing archaea which gave rise to sex hormone deficiency and male-female equality. The homo neanderthalis had a matriarchal society with features of alternate sexuality with asexual features. There was female dominance and female leadership. There was increased quantal perception in Neanderthals and a feeling of oneness of male and female.

The homo sapiens had decreased growth of cholesterol catabolizing archaea which gave rise to increase in sex hormones and male dominance. The homo

sapien society was a patriarchal society with male dominance and male leadership. It was predominantly heterosexual. There was decreased quantal perception with male dominance and unequality.[1-16]

Neurobiology of the Environmental Movement

The homo neanderthalis had increased quantal perception and a feeling of oneness with the world. The plants, animals and the earth had a soul. The human being felt at oneness with the world. This leads onto the concept of eco-spirituality. There was no consumerism or exploitation. The world existed along with environment.

The homo sapiens had no quantal perception. There was no feeling of oneness with the world. The plants, animals and earth had no soul. The human being was apart from the world. God gave the world to human being to exploit and enjoy. There was no concept of eco-spirituality. There was consumerism and exploitation of the environment. This leads onto global warming, pollution and destruction of the world.[1-16]

Neurobiology of Globalization and the Internet Dominated World

The homo neanderthalis had increased quantal perception and felt that the world was one. There was a feeling of global consciousness. The increased perception of low level EMF due to increased porphyrin production leads to prefrontal cortex atrophy and cerebellar dominance. The conscious perception is decreased and quantal perception dominates. The world becomes uniform and one.

The homo sapiens had decreased quantal perception and didn’t feel one with the world. There was no feeling of global consciousness. There was decreased perception of low level EMF due to decreased porphyrin production producing prefrontal cortex dominance and dominance of conscious perception. The world

belongs to the individual. The world is not perceived as one. The world is divided into nation-states and principalities.[1-16]

Neurobiology of History, War and Peace

The homo neanderthalis had increased quantal perception and this gave rise to a feeling of universal oneness and uniformity. There was increased love and compassion. There was no war, but universal peace. The homo sapiens had decreased quantal perception and this gave rise to a feeling of individuality and tribal consciousness. There was no love or compassion. There was war and no universal peace.

The major wars of history are between the peace loving homo neanderthalis and aggressive homo sapiens. The Ramayana war was fought between the neanderthalic asuric Ravana army and the homo sapien Rama army. The Mahabharata war was between the homo sapiens Pandava army and neanderthalic Kaurava army. The world wars were imposed upon the world by the homo sapiens and their tribal consciousness. Hitler and Mussolinis are prime examples of it. The only atomic bombing of the world were also conducted by the homo sapiens allied army.[1-16]

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4

Archaea Induced Stem Cell Syndrome and Androgynous Creative Matriarchal Cannibalistic Capitalistic State

Introduction

The global warming produces extremes of temperature and accumulation of atmospheric carbon dioxide resulting in growth of symbiotic extremophiles like archaea. Archaea can induce dedifferentiation of somatic cells to stem cells. This involves the process of reverse aging. The differentiated somatic cells lose their function as they become stem cells. The archaeal magnetite induces quantal extrasensory perception of low level of EMF as the somatic neuronal cells lose their function. This results in low level of EMF effect on the brain producing cortical atrophy especially the prefrontal cortex. The primitive parts of the brain dominate with cerebellum and brain stem undergoing hypertrophy. The atrophy of the cortex results in behavioural changes. The cortex has different hemispheric dominance in males and females. The right hemisphere is a creative hemisphere and is male. The left hemisphere is the practical hemisphere and is female. When the cortex atrophies the hemispheric differentiation and the effect on behavior is obliterated. The cortical effect on male and female behavior is lost. Behaviour becomes uniform and single and is dominated by the primitive brain stem and cerebellar cortex. It results in impulsive behavior dominated by the will to power and individuality. This forms the basis of the androgynous state and alternate forms of sexuality. This hypothesis was studied in this paper by checking the archaeal growth in population with alternate sexual traits.[1-17]

Materials and Methods

The blood samples were drawn from 15 normal individuals with alternate sexual traits and cytochrome F420 activity was studied. The estimations done in the blood samples collected blood lactate, pyruvate, hexokinase, cytochrome C,

digoxin, bile acids, butyrate and propionate were estimated.

Results

The results showed that the individuals with alternate sexual traits had increased archaeal symbiosis and increased cytochrome F420 activity. They also had increased blood lactate and pyruvate, increased RBC hexokinase, increased serum cytochrome C and serum cytochrome F420, increased serum digoxin, bile acids, butyrate and propionate. The serum cytochrome C levels in the blood were increased. This suggested mitochondrial dysfunction. There was an increased in glycolysis as suggested by increased RBC hexokinase activity and lactic acidosis. Owing to the mitochondrial dysfunction and pyruvate dehydrogenase inhibition there was pyruvate accumulation. The pyruvate was converted to lactate by the Cori cycle and also to glutamate and ammonia. This metabolism is suggestive of the Warburg phenotype and stem cell conversion. The stem cells depend on Warburg anaerobic glycolysis for energetics and have a mitochondrial dysfunction. The lysosomal enzyme beta galactosidase activity was increased in the disease group and in creative artists and criminals suggesting stem cell conversion. This suggests that individuals with androgynous traits had stem cell metabolonomics and stem cell conversion.

Table 1

Group	Cytochrome F 420		Serum Cyto C (ng/ml)		Lactate (mg/dl)		Pyruvate (umol/l)		RBC Hexokinase (ug glu phos/ hr/mgpro)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
Normal population	1.00	0.00	2.79	0.28	7.38	0.31	40.51	1.42	1.66	0.45
Alternate sexual traits	4.00	0.00	12.39	1.23	25.99	8.10	100.51	12.32	5.46	2.83
Low level background radiation	4.00	0.00	12.26	1.00	23.31	1.46	103.28	11.47	7.58	3.09
F value	0.001		445.772		162.945		154.701		18.187	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 2

Group	ACOA (mg/dl)		Glutamate (mg/dl)		Se. Ammonia (ug/dl)		RBC Digoxin (ng/ml RBC Susp)		Beta galactosidase activity in serum (IU/ml)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal population	8.75	0.38	0.65	0.03	50.60	1.42	0.58	0.07	17.75	0.72
Alternate sexual traits	2.51	0.36	3.19	0.32	93.43	4.85	1.41	0.23	55.17	5.85
Low level background radiation	2.14	0.19	3.47	0.37	102.62	26.54	1.41	0.30	51.01	4.77
F value	1871.04		200.702		61.645		60.288		194.418	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

The cortical atrophy and cerebellar/brain stem dominance results in obliteration in hemispheric difference in sexual behavior. The right hemisphere is creative and male in outlook while left hemisphere is practical and female in outlook. The primitive parts of the brain take over the function of regulating sexual behavior. The cerebellum plays an important role and this results in impulsive sexual traits. The difference between male and female sexual behaviours induced by cerebral cortical function is lost. The archaeal cholesterol catabolism results in depletion of sex steroids and deficiency of testosterone and estrogens. The archaeal induced conversion of ovarian and testicular cells into stem cells results in loss of function and decreased secretion of male and female hormones. Behaviour becomes unisexual. This becomes non-inhibitory and impulsive in nature. It transcends all taboos and has got a reflection in culture and society affecting all manners of social interaction. The predominant form of brain perception is extrasensory or quantal. The primitive human impulses become unleashed and this results in a flood of primitive behavioural traits with violent, aggressive and obscene traits in society. The increased incidence of violent sexual behavioural traits is related to the dominance of the primitive areas of the brain-

the cerebellum and brain stem. The dress code of the society also changes and results in metrosexual and unisexual garments. The mode of grooming of male and female changes and both becomes equal and the same. This creates the metrosexual world.[1-17]

The dominance of the primitive areas of the brain results in fear flight and fight response resulting in an epidemic of selfishness in society. Individualism takes over and there is no commitment to the society as such. Sexual behaviours were programmed for the benefit of the society so that the human population is replaced. The cortical atrophy and cerebellar dominance results in selfish sexual behavioural traits producing sexual behavior for individual pleasure and gratification in animalistic sense. This results in loss of family values and declining population as is seen in European countries. The cerebral cortical atrophy and dominance of cerebellum result in selfishness and individuality contributing to an anarchic society. The cerebral cortical atrophy results from perception of low level of EMF resulting from increased archaeal magnetite as well as EMF pollution resulting from internet exposure. Society becomes globalized and anarchic fueled by the internet. This results in an acortical acephalic society with dominant primitive cerebellar function. There is no compassion, love, feeling of altruism or goodness. This is replaced by selfishness and individuality. The internet and social media becomes the common market place for interactions. The feeling of human touch and love is lost. Society becomes increasingly robotical and autistic. The realm of the senses takes over the kingdom of God. Everything becomes subsumed and sacrificed in the altar of selfishness, greed and pleasure. This produces an anarchic, unisexual and society of primitive impulses. The cortical atrophy and cerebellar dominance results in a play of primitive impulses resulting in violence and aggression. This results from a culture of selfishness. This produces terrorism and acts of war which are a form of transcendence. This also produces criminal behavior where individuality and selfishness dominates. Society becomes

dominated by ritualized and in some cases obscene behavior.[1-17]

The cortical atrophy and dominance of cerebellum result in loss of cortical neuronal function and increased extrasensory perception mediated by archaeal magnetite. This results in dominant spiritual behaviours where one comes into contact with the eternal and archetypes. This results in a literature of transcendence. This produces what is called as magic realism of writers like Gabriel Marquez. The literature explores the evil depths of the human soul. This results in a dominance of sexual, violent, obscene and evil in literature as seen in post modern literature. This has also a reflection in art of painting, dance and music. Painting, dance and music become surreal and the rationality of the cortex regulating it is lost. This results in psychedelic and rock music as well as the surrealistic abstract art of Picasso. Dance forms also take violent, obscene, chaotic forms. This is an art of the surrealistic acephalic irrational world in the realm of senses driven by obscenity. This type of art and literature correlates with the androgynous creativity.[1-17]

The prefrontal cortical atrophy and cerebellar dominance is due to archaeal growth which results in stem cell conversion. The stem cell syndrome can produce a proliferation of systemic diseases. The neuronal stem cell conversion results in loss of neuronal function and dominant extrasensory archaeal magnetite mediated perception. This produces an epidemic of schizophrenia and autism. The stem cells have the Warburg phenotype with mitochondrial dysfunction and glycolytic energetics. This results in metabolic syndrome x. The stem cells can proliferate resulting in cancer syndromes. The lymphocytic stem cells proliferate producing an autoimmune disease. The neuronal stem cells transformation and loss of function can lead to degenerations. Thus the systemic somatic and neuropsychiatric diseases correlate with alternate sexual traits and stem cell transformation.[1-17]

The archaeal symbiosis mediated brain changes producing cerebellar dominance and cortical atrophy results in an individualistic selfish society. This is the kernel of capitalistic growth and models which tend to fail because of the individualistic will to power and dominate at all cost. The society becomes more dictatorial and fascism and nazistic behavior takes over. There is individualistic trait of selfishness and a primitive impulse to follow the leader. The civil society which is just, good, equal, socialistic, democratic and fair generated by cortical impulses becomes dead. The society which is governed by cerebellar function and unisexual tendencies becomes more matriarchal as men and women tend to have similar traits. Women also tend to be as aggressive if not more than men. The cortical hemispheric control over social and individual behavior is lost. It becomes the primitive world of selfishness and individuality uninhibited by sexual mores.[1-17]

The archaeal overgrowth and digoxin synthesis can modulate retroviral growth. Digoxin can modulate RNA editing and retroviral replication. Digoxin can also produce intracellular magnesium deficiency resulting in reverse transcriptase inhibition. Thus the archaeal induced stem cell syndrome is retroviral resistant. This results in changes in the human genome as such. HERV sequences in the human genome functions as jumping genes producing dynamicity and flexibility of the human genome. This is required for the changes in cortical synaptic connectivity, HLA gene flexibility and developmental changes. The archaeal induced stem cell syndrome produces a rigid adynamic genome not able to cope with the complexities of the cortical connectivity, HLA gene rearrangements for immune response and gene changes for complex development. This neanderthalisation of the human body due to archaeal symbiosis can spell the death of the human species. The new human species which may be transient consequent to archaeal symbiosis produced by extremophilic climatic changes consequent to global warming can be called the human homo neoneanderthalis. It

is androgynous, creative, psychedelic, artistic, spiritual, aggressive, violent, selfish, impulsive, anarchic, chaotic and individualistic.[1-17]

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5

The Spiritual, Surrealistic Evil Brain

Introduction

The global warming produces increased acidity and atmospheric carbon dioxide resulting in extremophilic archaeal symbiosis in humans. The archaeal symbiosis results in neanderthalisation of humans. The archaea induced uncoupling proteins producing the primitive Warburg phenotype and stem cell metabolonomics. The archaeal metabolites of cholesterol digoxin, bile acids and short chain fatty acids induce uncoupling proteins. The lysosomal enzymes a marker of stem cell conversion are markedly increased along with genesis of the archaeal phenotype in metabolic syndrome x, degenerations, autoimmune diseases, cancer, schizophrenia and autism. In all these systemic diseases there is somatic cell transformation to stem cell and lose of function. The neurons become immature and lose their dendritic spines and connectivity. This results in loss of neuronal function and reversion to archaeal magnetite mediated extrasensory perception of low level of EMF. Exposure to low level of EMF results in brain changes. This results in prefrontal cortex atrophy. The primitive brain areas of cerebellum and brain stem become hypertrophic. The somatic and neuronal cell proliferates and there is neanderthalisation of the brain and body.[1-17]

The idea of goodness is based on reason and logic. Reason judgment and logic is a function of the cerebral cortex especially the prefrontal lobe. Prefrontal lobe function needs dynamic synaptic connectivity which is produced by jumping genes mediated by human endogenous retroviral sequences. Goodness is correlated with heaven. The idea of evil is based on the unconscious and the impulsive behavior related to subcortical areas especially the cerebellum. The cerebellum is the site of impulsive behavior and the unconscious behavior. The cerebellar and subcortical brain connections are predominantly archaeal colony networks. The idea of evil is related to hell. The idea of conscious judgmental

acts and unconscious impulsive acts, heaven and hell, goodness and evil are juxtapositions. The global warming and exposure to low level of EMF leads to actinidic archaeal growth in the brain and increased archaeal magnetite mediated perception of low level of EMF. This leads to prefrontal cortex atrophy and cerebellar dominance. The conscious becomes minimal and unconscious brain takes over. The study assessed archaeal growth as assessed by cytochrome F420 activity and stem cell type metabolonomics in systemic diseases, neuropsychiatric disorders and normal individuals with differing psychological profile- prisoners, creative individuals and common sense modulated business men.[1-17] The results are presented in this paper.

Materials and Methods

The blood samples were drawn from four groups of psychological different population spiritually inclined, criminal prisoners, creative artists and business men. There were 15 members in each group. The blood samples were also drawn from 15 cases each of metabolic syndrome, degenerations- Alzheimer's disease, autoimmune disease- SLE, cancer- brain glioma, schizophrenia and autism. The estimations done in the blood samples collected include cytochrome F420 activity. Blood lactate, pyruvate, hexokinase, cytochrome C, cytochrome F420, digoxin, bile acids, butyrate and propionate were estimated.

Results

The results showed that the spiritual, artistic creative individuals and criminal prisoners had increased cytochrome F420 activity and RBC digoxin levels. The results showed that the businessmen had decreased cytochrome F420 activity and RBC digoxin levels. The blood samples of alzheimer's disease, autoimmune

disease- SLE, cancer- brain glioma, schizophrenia and autism had increased blood lactate and pyruvate, increased RBC hexokinase, increased serum cytochrome C and serum cytochrome F420, increased serum digoxin, bile acids, butyrate and propionate. The disease state had increased cytochrome F420 activity. The serum cytochrome C levels in the blood were increased. This suggested mitochondrial dysfunction. There was an increased in glycolysis as suggested by increased RBC hexokinase activity and lactic acidosis. Owing to the mitochondrial dysfunction and pyruvate dehydrogenase inhibition there was pyruvate accumulation. The pyruvate was converted to lactate by the Cori cycle and also to glutamate and ammonia. This metabolism is suggestive of the Warburg phenotype and stem cell conversion. The stem cells depend on Warburg anaerobic glycolysis for energetics and have a mitochondrial dysfunction. The lysosomal enzyme beta galactosidase activity was increased in the disease group and in creative artists and criminals suggesting stem cell conversion. This suggests that artistic creative, criminal prisoners as well as spiritual individuals tend to have stem cell metabolonomics and stem cell conversion.

Table 1

Group	Cytochrome F420		Serum Cyto C (ng/ml)		Lactate (mg/dl)		Pyruvate (umol/l)		RBC Hexokinase (ug glu phos/ hr/mgpro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal population	1.00	0.00	2.79	0.28	7.38	0.31	40.51	1.42	1.66	0.45
Spiritual	4.00	0.00	12.39	1.23	25.99	8.10	100.51	12.32	5.46	2.83
Acquisitive capitalist	0.00	0.00	1.21	0.38	2.75	0.41	23.79	2.51	0.68	0.23
Artistic	4.00	0.00	12.84	0.74	23.64	1.43	96.19	12.15	10.12	1.75
Criminality	4.00	0.00	12.72	0.92	25.35	5.52	103.32	13.04	9.44	3.40
Schizo	4.00	0.00	11.58	0.90	22.07	1.06	96.54	9.96	7.69	3.40
Seizure	4.00	0.00	12.06	1.09	21.78	0.58	90.46	8.30	6.29	1.73
HD	4.00	0.00	12.65	1.06	24.28	1.69	95.44	12.04	9.30	3.98
AD	4.00	0.00	11.94	0.86	22.04	0.64	97.26	8.26	8.46	3.63
MS	4.00	0.00	11.81	0.67	23.32	1.10	102.48	13.20	8.56	4.75
SLE	4.00	0.00	11.73	0.56	23.06	1.49	100.51	9.79	8.02	3.01
NHL	4.00	0.00	11.91	0.49	22.83	1.24	95.81	12.18	7.41	4.22
Glio	4.00	0.00	13.00	0.42	22.20	0.85	96.58	8.75	7.82	3.51
DM	4.00	0.00	12.95	0.56	25.56	7.93	96.30	10.33	7.05	1.86
CAD	4.00	0.00	11.51	0.47	22.83	0.82	97.29	12.45	8.88	3.09
CVA	4.00	0.00	12.74	0.80	23.03	1.26	103.25	9.49	7.87	2.72
AIDS	4.00	0.00	12.29	0.89	24.87	4.14	95.55	7.20	9.84	2.43
CJD	4.00	0.00	12.19	1.22	23.02	1.61	96.50	5.93	8.81	4.26
Autism	4.00	0.00	12.48	0.79	21.95	0.65	92.71	8.43	6.95	2.02
DS	4.00	0.00	12.79	1.15	23.69	2.19	91.81	4.12	8.68	2.60
Cerebral Palsy	4.00	0.00	12.14	1.30	23.12	1.81	95.33	11.78	7.92	3.32
CRF	4.00	0.00	12.66	1.01	23.42	1.20	97.38	10.76	7.75	3.08
Cirr/Hep Fail	4.00	0.00	12.81	0.90	26.20	5.29	97.77	13.24	8.99	3.27
Low level background radiation	4.00	0.00	12.26	1.00	23.31	1.46	103.28	11.47	7.58	3.09
F value	0.001		445.772		162.945		154.701		18.187	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Table 2

Group	ACOA (mg/dl)		Glutamate (mg/dl)		Se. ammonia (ug/dl)		RBC digoxin (ng/ml RBC Susp)		Beta galactosidase activity in serum (IU/ml)	
	Mean	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**	**Mean**	**± SD**
Normal population	8.75	0.38	0.65	0.03	50.60	1.42	0.58	0.07	17.75	0.72
Spiritual	2.51	0.36	3.19	0.32	93.43	4.85	1.41	0.23	55.17	5.85
Acquisitive capitalist	16.49	0.89	0.16	0.02	23.92	3.38	0.18	0.05	8.70	0.90
Artistic	2.51	0.42	3.11	0.36	92.40	4.34	1.40	0.32	46.37	4.87
Criminality	2.19	0.19	3.27	0.39	95.37	5.76	1.51	0.29	47.47	4.34
Schizo	2.51	0.57	3.41	0.41	94.72	3.28	1.38	0.26	51.17	3.65
Seizure	2.15	0.22	3.67	0.38	95.61	7.88	1.23	0.26	50.04	3.91
HD	1.95	0.06	3.14	0.32	94.60	8.52	1.34	0.31	51.16	7.78
AD	2.19	0.15	3.53	0.39	95.37	4.66	1.10	0.08	51.56	3.69
MS	2.03	0.09	3.58	0.36	93.42	3.69	1.21	0.21	47.90	6.99
SLE	2.54	0.38	3.37	0.38	101.18	17.06	1.50	0.33	48.20	5.53
NHL	2.30	0.26	3.48	0.46	91.62	3.24	1.26	0.23	51.08	5.24
Glio	2.34	0.43	3.28	0.39	93.20	4.46	1.27	0.24	51.57	2.66
DM	2.17	0.40	3.53	0.44	93.38	7.76	1.35	0.26	51.98	5.05
CAD	2.37	0.44	3.61	0.28	93.93	4.86	1.22	0.16	50.00	5.91
CVA	2.25	0.44	3.31	0.43	103.18	27.27	1.33	0.27	51.06	4.83
AIDS	2.11	0.19	3.45	0.49	92.47	3.97	1.31	0.24	50.15	6.96
CJD	2.10	0.27	3.94	0.22	93.13	5.79	1.48	0.27	49.85	6.40
Autism	2.42	0.41	3.30	0.32	94.01	5.00	1.19	0.24	52.87	7.04
DS	2.01	0.08	3.30	0.48	98.81	15.65	1.34	0.25	47.28	3.55
Cerebral Palsy	2.06	0.35	3.24	0.34	92.09	3.21	1.44	0.19	53.49	4.15
CRF	2.24	0.32	3.26	0.43	98.76	11.12	1.26	0.26	49.39	5.51
Cirr/Hep Fail	2.13	0.17	3.25	0.40	94.77	2.86	1.50	0.20	46.82	4.73
Low level background radiation	2.14	0.19	3.47	0.37	102.62	26.54	1.41	0.30	51.01	4.77
F value	1871.04		200.702		61.645		60.288		194.418	
P value	< 0.001		< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

The systemic diseases and neuropsychiatric disorders tend to have a predominant anaerobic glycolytic metabolism and mitochondrial oxidative phosphorylation is suppressed. The metabolism is similar to the metabolism of the stem cell. The pyruvate and lactate levels are increased with a decrease in acetyl coenzyme A and ATP. The glycolytic pathway and hexokinase is increased. This indicates a Warburg phenotype depending upon anaerobic glycolysis for energetics. The lysosomal enzymes beta galactosidase a stem cell marker is increased. The cytochrome F420 is also increased as well as the archaeal catabolite digoxin which suppresses sodium potassium ATPase. Bacteria and archaea are supposed to induce stem cell transformation. The induction of uncoupling proteins leads to stem cell transformation. The uncoupling proteins inhibit oxidative phosphorylation and the substrates are directed to anaerobic glycolysis. Digoxin by inhibiting sodium potassium ATPase can increase intracellular calcium, induce mitochondrial permeability transient pore function and uncouple oxidative phosphorylation. The side chain of cholesterol is catabolised by archaea to butyric acid and propionic acid which uncouple oxidative phosphorylation. The archaeal side chain hydroxylase convert cholesterol to bile acids which uncouple oxidative phosphorylation. Thus archaeal symbiosis in the cell results in cholesterol catabolism and the catabolites digoxin, bile acids and short chain fatty acids uncouple oxidative phosphorylation, inhibit mitochondrial function and promote anaerobic glycolysis. The conversion of somatic cells to stem cell helps in archaeal persistence within the cell and symbiosis. Mycobacterium leprae infection can convert Schwann cells to stem cells. Archaeal infection produces somatic cell conversion to stem cells for archaeal persistence. The conversion to stem cell results in proliferation and loss of function resulting in systemic disease and

neuropsychiatric disorders. Stem cell conversion of neurons and loss of function results in development of a new psychological phenotype.[1-17]

The systemic and neuronal cell in metabolic syndrome x, cancer, autoimmune disease, degenerations, schizophrenia and autism behaves like the stem cell. It is plausible to hypothesize a somatic cell conversion to stem cell in these disorders. The differentiated cells by archaeal induction get converted to stem cell. The stem cell is a immature cell with loss of function. The neurons lose their dendritic spines and loss of connectivity. The brain function becomes primitive. The neurons are adendritic and disconnected. This results in complex brain structures like the modern cerebral cortex and prefrontal cortex atrophy. The primitive parts of the brain the brain stem and cerebellum hypertrophies. This results in neanderthalisation of the brain with a prominent occipital bun and atrophied prefrontal cortex. The prefrontal cortex atrophy results in loss of logic, judgment, reasoning and executive functions. The hypertrophy of the cerebellum and brain stem results in dominance of impulsive behavior. The difference between reality and dreams is lost. The brain is ruled by the senses and impulses. The brain becomes dysfunctional with more of violent, aggressive and cannibalistic behavior. The art becomes more abstract and related to the unconscious. The world of the unconscious brain with its archetypes takes over. There is loss of the world of reasoning, logic and judgment. It is a world of impulsiveness in which primitive tendencies with relation to the unconscious becomes dominant. This produces more of ritualized behavior, violent and aggressive tendencies, terrorism, war, sexual obscenities and alternate sexuality. It is a world of the senses. It is also intensely evil as well as spiritual. The inhibition of the conscious due to loss of cortical functions and the dominance of the unconscious leads to mystical experience. There is a overflowing of spirituality. The paradoxical side of this behavior also dominates. The violence, aggression, obsessive sexuality, magic realism in literature, abstract painting, rock music and dance and modern poetry as

well as literature produces transcendence of a different kind. This results in surrealism and syntheism. The loss of function of the neurons results in schizophrenia, autism and degenerations. The increased archaeal induced proliferation of stem cells results in a big sized brain and trunk as in Neanderthals. This archaeal symbiosis produces neanderthalisation and a stem cell syndrome. This produces reverse aging which can be called as an epidemic Benjamin Button syndrome. The lymphocytic stem cells have uncontrolled proliferation and results in autoimmune diseases. The stem cell proliferation results in oncogenesis. The stem cell metabolonomics with inhibited mitochondrial function and anaerobic glycolysis results in metabolic syndrome x. Stem cell markers are increased in schizophrenia and autism and the neurons lack dendritic spines. Stem cell markers are also increased in autoimmune disease. The diabetic metabolism is akin to stem cell metabolism. The cancer cell behaves like the stem cell.[1-17]

In the metaphysics of evil the unconscious dominates and the behavior is impulsive dictated by primitive thoughts. The unconscious modulated by the cerebellum is responsible for automatic acts producing what is called as psychic automatism. The unconscious parallels what Jung described as the archetypes of the collective unconscious. The metaphysics of evil leads to a syntheistic brain with the dominance of the willpower. The primitive archetypes produce concepts of abstract painting, psychedelic music and dance and postmodern literature or magical realism. All these are modes of connecting with the unconscious. The unconscious produces primitive selfish tendencies leading to individualism and capitalism. The unconscious helps to transcend taboos and creates the surrealistic world. The collective unconscious also produces a sense of spirituality and oneness. It is an impulsive brain with fixations and primitive obsessions. There is cerebellar psychic automatism. This leads to ritualized behaviours. The dominance of the collective unconscious results in ritualized behaviors characteristic of religious worship. The collective unconscious also leads to the

creation of obscene art and literature as well as violence which is a form of transcendence. Coprolalic religious ritual ceremonies had been described in some parts of the world. Terrorism and acts of violence are also a type of transcendence. The same phenomena occur in ritual sacrifices in religion, the violence of war and the acquisitiveness of capitalism. The primitive unconscious leads to the will to power. This produces greedy capitalism, dictatorship and fascism. The will to power results in worship of the powerful. It is an individualistic, anarchic, selfish world. The cerebellar world is the primitive world of archetypes in the collective unconscious. The abstract paintings have links with the collective unconscious. The rock music or modern music contains rhythmic primitive chaotic sounds coming out the collective unconscious. The primitive collective unconscious links up post modern literature or magic realism with violence, love, hate, evil, obscenities and death. Thus literature, music, dance and painting helps to overcome reality and rationality producing transcendence. The unconscious brain is formed of an archaeal colony network and is adynamic and inflexible. There is an epidemic of autism and schizophrenia. The loss of function of neurons leads to increased extrasensory perception via archaeal magnetite. This can lead to the lack of development of speech and ritualized behaviours of autism. This also produces the thought disorder, hallucinations and delusions of schizophrenia. It looks like an epidemic cerebellar cognitive, affective disorder.[1-17]

The goodness is related to conscious brain localized in the cortical areas. The cortical areas mediate moralistic, functionally atheistic, civil society behavior. The civil society depends upon common good. The cortical world is a world of morality, rationality, altruism, civility and decencies. This needs inhibitory power of the cerebral cortex. Such a society is non-capitalistic and works for the common good. It tends to be non creative. The primitive collective spirituality and oneness is lost. It is replaced by goodness based on judgment, reasoning and morality. It is a moralistic world where taboos are banned. This requires synaptic

plasticity and is modulated by HERV mediated jumping genes. This needs a dynamic brain and the human cerebral cortex evolved due to the jumping genes generated from human endogenous retroviral sequences. The cerebellar world comparatively is impulsive, criminal, violent, terroristic with love of war, selfish, acquisitive, spiritual, autistic, obsessive, schizophrenic, obscene, evil, ritualized, artistic, illogical and cruel. It is mediated by the archaeal colony network. The stem cell transformation of somatic cells results in HERV resistance and retroviral resistance. Archaeal digoxin inhibits reverse transcriptase by producing magnesium deficiency as well as modulates RNA viral editing inhibiting retroviral replication. This produces lack of HERV jumping genes in this stem cell brain and lack of synaptic plasticity and dynamicity. The stem cell syndrome is characterized by retroviral resistance. Archaeal symbiosis inhibits retroviral infection. The homo sapiens with less of archaeal symbiosis becomes susceptible to retroviral and other RNA viral infection and gets wiped out. The homo neoneanderthalis are resistance to retroviral and other RNA viral infection and persists. The homo neoneanderthalis dominates all over the world. But the homo neoneanderthalis are prone to civilizational disease like malignancy, autoimmune disease, neurodegeneration, metabolic syndrome and neuropsychiatric disorders. The homo neoneanderthalis becomes extinct after a period of time.[1-17]

The archaeal induced stem cell syndrome or neanderthalisation is due to global warming and acid rains resulting in increased extremophilic archaeal symbiosis. The archaea catabolizes cholesterol and generates digoxin, bile acids and short chain fatty acids which produce induction of uncoupling proteins. This produces mitochondrial dysfunction and the cell obtains its energetics from glycolysis. Archaeal digoxin produces membrane sodium potassium ATPase inhibition which also contributes to stem cell conversion. The whole body somatic and brain undergoes stem cell conversion and becomes a stem cell phenotype with Warburg metabolic phenotype. The generalized acidity due to global warming

and increased atmospheric carbon dioxide also facilitates archaeal growth and stem cell transformation. The acidic pH due to the Warburg phenotype and increased atmospheric carbon dioxide also results in stem cell conversion. The somatic differentiated cell getting converted to stem cells lose their function and become dysfunctional metabolically, neurologically, immunologically and endocrine-wise. This produces the epidemic Benjamin button syndrome and the human species becomes neanderthalic and a collection of immature stem cells. This results in epidemic metabolic syndrome x, degenerations, cancer, autoimmune disease, autism and schizophrenia. The brain becomes converted to a collection of stem cells which are dedifferentiated with loss of function and is like an archaeal colony network. The perception becomes extrasensory and quantal depending on archaeal magnetite. The increased amount of low level EMF perception results in prefrontal cortical atrophy. It also produces cerebellar hypertrophy and the cerebellar cognitive function takes over. This also results in societal changes where evil and spirituality dominates. The world of the logical civil society of the Christian world comes to end and paganistic behavior takes over. The society becomes selfish and dominated by impulsive consumerism and acquisitive capitalism. The world becomes cruel, violent, aggressive and terroristic. Art becomes chaotic and abstract in line with the senses and unconscious. There is a predominance of obsessive and alternate sexuality. Criminal behavior and cruelty dominates. The world is impulsive psychopathic, creative autistic with features of idiotic savants, ritualistic, chaotic, sexual, ugly, anarchic, violent, evil, paganistic, obscene, atheistically spiritual as well as selfish. It mimics the Niezteschean world, the deconstructed world of Derrida, the surrealistic world of Bataille and the nihilistic, anarchic world. There is the death of the individual and life becomes a social value. It is an acephalistic world of Freud and Jung. The art is abstract, the literature is magically real, the music is rock and the dance chaotic. All these results from the extinction of rationality and

the dominance of primitive impulsive behavior. A civilization of the senses dominated by the unconscious takes over. The will to goodness given by the cerebral cortex is lost. This results in development of a new homo neoneanderthal human species with its dominant evilly spiritual cerebellar brain. It produces a surrealistic evil brain with realm of the senses, archetypes, evil spirituality and impulsiveness taking over. It is a kingdom of the collective unconscious and selfish capitalism with the will to power and the realm of the senses.[1-17]

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6

Endosymbiotic Actinidic Archaea and Viroids Mediated Model of Conscious/Quantal Perception and Regulation of Brain Function

Introduction

An endosymbiotic actinidic archaea and viroid mediated model of conscious and quantal perception is presented. Endomyocardial fibrosis (EMF) along with the root wilt disease of coconut is endemic to Kerala with its radioactive actinide beach sands. Actinides like rutile producing intracellular magnesium deficiency due to rutile-magnesium exchange sites in the cell membrane has been implicated in the etiology of EMF.[1, 2] Organisms like phytoplasmas and viroids have also been demonstrated to play a role in the etiology of these diseases.[3, 4] Actinidic archaea and viroids has been related to the pathogenesis of schizophrenia, autism and primary seizure disorder.[2] Actinidic archaea have a mevalonate pathway and cholesterol catabolism[5-8]. The role of endosymbiotic actinidic archaea and viroids in conscious and quantal perception as well as in regulation of brain function is discussed.

Materials and Methods

Informed consent of the subjects and the approval of the ethics committee were obtained for the study. The following groups were included in the study:- schizophrenia, autism and primary seizure disorder/primary generalized epilepsy. There were 10 patients in each group and each patient had an age and sex matched healthy control selected randomly from the general population. The blood samples were drawn in the fasting state before treatment was initiated. Plasma from fasting heparinised blood was used and the experimental protocol was as follows (I) Plasma+phosphate buffered saline, (II) same as I+cholesterol substrate, (III) same as II+rutile 0.1 mg/ml, (IV) same as II+ciprofloxacine and doxycycline each in a concentration of 1 mg/ml. Cholesterol substrate was prepared as

described by Richmond.[9] Aliquots were withdrawn at zero time immediately after mixing and after incubation at 37℃ for 1 hour. The following estimations were carried out:- Cytochrome F420, free RNA, free DNA, polycyclic aromatic hydrocarbon, hydrogen peroxide, dopamine, noradrenaline, serotonin, pyruvate, ammonia, glutamate, acetyl choline, hexokinase, HMG CoA reductase, digoxin and bile acids.[10-13] Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm). Polycyclic aromatic hydrocarbon was estimated by measuring hydrogen peroxide liberated by using glucose reagent. The statistical analysis was done by ANOVA.

Results

The parameters checked as indicated above were:- cytochrome F420, free RNA, free DNA, muramic acid, polycyclic aromatic hydrocarbon, hydrogen peroxide, serotonin, pyruvate, ammonia, glutamate, cytochrome C, hexokinase, ATP synthase, HMG CoA reductase, digoxin and bile acids. Plasma of control subjects showed increased levels of the above mentioned parameters with after incubation for 1 hour and addition of cholesterol substrate resulted in still further significant increase in these parameters. The plasma of patients showed similar results but the extent of increase was more. The addition of antibiotics to the control plasma caused a decrease in all the parameters while addition of rutile increased their levels. The addition of antibiotics to the patient's plasma caused a decrease in all the parameters while addition of rutile increased their levels but the extent of change was more in patient's sera as compared to controls. The results are expressed in tables 1-8 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time.

Table 1. *Effect of rutile and antibiotics on cytochrome F420 and noradrenaline.*

Group	CYT F420 % (Increase with Rutile)		CYT F420 % (Decrease with Doxy)		Noradrenaline % (Increase with Rutile)		Noradrenaline % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.48	0.15	18.24	0.66	4.43	0.19	18.13	0.63
Schizo	23.24	2.01	58.72	7.08	22.50	1.66	60.21	7.42
Seizure	23.46	1.87	59.27	8.86	23.81	1.19	61.08	7.38
Autism	21.68	1.90	57.93	9.64	23.52	1.49	63.24	7.36
F value	306.749		130.054		380.721		171.228	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 2. *Effect of rutile and antibiotics on dopamine and Serotonin.*

Group	Dopamine % change (Increase with Rutile)		Dopamine % change (Decrease with Doxy)		Serotonin % change (Increase with Rutile)		Serotonin % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.41	0.15	18.63	0.12	4.34	0.15	18.24	0.37
Schizo	21.88	1.19	66.28	3.60	23.02	1.65	67.61	2.77
Seizure	22.29	1.33	65.38	3.62	22.13	2.14	66.26	3.93
Autism	22.76	2.20	67.63	3.52	22.79	2.20	64.26	6.02
F value	403.394		680.284		348.867		364.999	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 3. *Effect of rutile and antibiotics on free DNA and RNA.*

Group	DNA % change (Increase with Rutile)		DNA % change (Decrease with Doxy)		RNA % change (Increase with Rutile)		RNA % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.37	0.15	18.39	0.38	4.37	0.13	18.38	0.48
Schizo	23.28	1.70	61.41	3.36	23.59	1.83	65.69	3.94
Seizure	23.40	1.51	63.68	4.66	23.08	1.87	65.09	3.48
Autism	22.12	2.44	63.69	5.14	23.33	1.35	66.83	3.27
F value	337.577		356.621		427.828		654.453	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 4. *Effect of rutile and antibiotics on HMG CoA reductase and PAH.*

Group	HMG CoA R % change (Increase with Rutile)		HMG CoA R % change (Decrease with Doxy)		PAH % change (Increase with Rutile)		PAH % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.30	0.20	18.35	0.35	4.45	0.14	18.25	0.72
Schizo	22.91	1.92	61.63	6.79	23.01	1.69	59.49	4.30
Seizure	23.09	1.69	61.62	8.69	22.67	2.29	57.69	5.29
Autism	22.72	1.89	64.51	5.73	22.61	1.42	64.48	6.90
F value	319.332		199.553		391.318		257.996	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 5. *Effect of rutile and antibiotics on digoxin and bile acids.*

Group	Digoxin (ng/ml) (Increase with Rutile)		Digoxin (ng/ml) (Decrease with Doxy+Cipro)		Bile acids % change (Increase with Rutile)		Bile acids % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	0.11	0.00	0.054	0.003	4.29	0.18	18.15	0.58
Schizo	0.55	0.06	0.219	0.043	23.20	1.87	57.04	4.27
Seizure	0.51	0.05	0.199	0.027	22.61	2.22	66.62	4.99
Autism	0.53	0.08	0.205	0.041	22.21	2.04	63.84	6.16
F value	135.116		71.706		290.441		203.651	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 6. *Effect of rutile and antibiotics on pyruvate and hexokinase.*

Group	Pyruvate % change (Increase with Rutile)		Pyruvate % change (Decrease with Doxy)		Hexokinase % change (Increase with Rutile)		Hexokinase % change (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82	4.21	0.16	18.56	0.76
Schizo	20.99	1.46	61.23	9.73	23.01	2.61	65.87	5.27
Seizure	20.94	1.54	62.76	8.52	23.33	1.79	62.50	5.56
Autism	21.91	1.71	58.45	6.66	22.88	1.87	65.45	5.08
F value	321.255		115.242		292.065		317.966	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 7. *Effect of rutile and antibiotics on hydrogen peroxide and acetyl choline.*

Group	H_2O_2 % (Increase with Rutile)		H_2O_2 % (Decrease with Doxy)		Acetyl Choline% (Increase with Rutile)		Acetyl Choline % (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.43	0.19	18.13	0.63	4.40	0.10	18.48	0.39
Schizo	22.50	1.66	60.21	7.42	22.52	1.90	66.39	4.20
Seizure	23.81	1.19	61.08	7.38	22.83	1.90	67.23	3.45
Autism	23.52	1.49	63.24	7.36	23.20	1.57	66.65	4.26
F value	380.721		171.228		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 8. *Effect of rutile and antibiotics on glutamate and ammonia.*

Group	Glutamate % (Increase with Rutile)		Glutamate % (Decrease with Doxy)		Ammonia % (Increase with Rutile)		Ammonia % (Decrease with Doxy)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.34	0.21	18.43	0.82	4.40	0.10	18.48	0.39
Schizo	20.99	1.46	61.23	9.73	22.52	1.90	66.39	4.20
Seizure	20.94	1.54	62.76	8.52	22.83	1.90	67.23	3.45
Autism	21.91	1.71	58.45	6.66	23.20	1.57	66.65	4.26
F value	321.255		115.242		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

There was increase in cytochrome F420 indicating archaeal growth. The archaea can synthesize and use cholesterol as a carbon and energy source.[14, 15] The archaeal origin of the enzyme activities was indicated by antibiotic induced suppression. The study indicates the presence of actinide based archaea with an alternate actinide based enzymes or metalloenzymes in the system as indicated by rutile induced increase in enzyme activities[16]. There was also an increase in archaeal HMG CoA reductase activity indicating increased cholesterol synthesis by the archaeal mevalonate pathway. The archaeal beta hydroxyl steroid

dehydrogenase activity indicating digoxin synthesis and archaeal cholesterol hydroxylase activity indicating bile acid synthesis were increased[7]. The archaeal cholesterol oxidase activity was increased resulting in generation of pyruvate and hydrogen peroxide[15]. The pyruvate gets converted to glutamate and ammonia by the GABA shunt pathway. The pyruvate can get converted to acetyl CoA and acetyl choline. The archaeal aromatization of cholesterol generating PAH, serotonin and dopamine was also detected[17]. The archaeal glycolytic hexokinase activity and archaeal extracellular ATP synthase activity were increased. The archaea can undergo magnetite and calcium carbonate mineralization and can exist as calcified nanoforms[18].

The endosymbiotic actinidic archaea and viroids have got axonal and transynaptic transport functioning as biological neurotransmitters. The human brain can be compared to a well organized modified archaeal biofilm with archaeal derived viroids serving as messengers. There was an increase in free RNA indicating self replicating RNA viroids and free DNA indicating generation of viroid complementary DNA strands by archaeal reverse transcriptase activity. The actinides modulate RNA folding and catalyze its ribozymal action. Digoxin can cut and paste the viroidal strands by modulating RNA splicing generating RNA viroidal diversity. The viroids are evolutionarily escaped archaeal group I introns which have retrotransposition and self splicing qualities[19]. Archaeal pyruvate can produce histone deacetylase inhibition resulting in endogenous retroviral (HERV) reverse transcriptase and integrase expression. This can integrate the RNA viroidal complementary DNA into the noncoding region of eukaryotic non coding DNA using HERV integrase as has been described for borna and ebola viruses[20]. The noncoding DNA is lengthened by integrating RNA viroidal complementary DNA with the integration going on as a continuing event. The archaea genome can also get integrated into human genome using integrase as has been described for trypanosomes[21]. The integrated viroids and archaea can undergo vertical

transmission and can exist as genomic parasites[20, 21]. This increases the length and alters the grammar of the noncoding region producing memes or memory of acquired characters[22]. The viroidal complementary DNA can function as jumping genes producing a dynamic genome important in storage of synaptic information, HLA gene expression and neurodevelopmental gene expression. The alteration in DNA sequences produced by viroidal complementary DNA jumping genes can lead onto schizophrenia, autism and primary seizure disorder. The RNA viroids can regulate mRNA function by RNA interference[19]. The phenomena of RNA interference can modulate T cell and B cell function, neuronal transmission and euchromatin/heterochromatin expression. The RNA viroid induced mRNA interference can modulate dopaminergic, glutamatergic and serotoninergic synaptic transmission contributing to the pathogenesis of schizophrenia, autism and primary seizure disorder.

Pollution is induced by the primitive nanoarchaea synthesized PAH and methane leading on to redox stress. Redox stress leads to sodium potassium ATPase inhibition, inward movement of plasma membrane cholesterol, defective SREBP sensing, increased cholesterol synthesis and nanoarchaeal/mevalonate pathway bacterial growth[28]. Redox stress leads on to viroidal and archaeal multiplication. Redox stress can also lead to HERV reverse transcriptase and integrase expression. The noncoding DNA is formed of integrating RNA viroidal complementary DNA and archaea with the integration going on as a continuing event. The archaeal pox like dsDNA virus forms evolutionarily the nucleus. The integrated viroidal and archaeal sequences can undergo vertical transmission and can exist as genomic parasites. Bacteria and viruses have been related to the pathogenesis of schizophrenia, autism and primary seizure disorder[23-31].

The change in the length and grammar of the noncoding region produces eukaryotic speciation and individuality[32]. It is the increase in non coding region

and HERV sequences of the genome that led to the evolution of the primate and the human brain and its attendant property of conscious and quantal perception. It is the noncoding region of the genome with its archaeal, RNA viroidal complementary DNA and HERV sequences that makes for the human qualities of the hominid brain. Changes in the length of noncoding region can lead onto disorders of consciousness like schizophrenia[33]. A schizophrenia specific human endogenous retroviruses and change in the length and grammar of the noncoding region has been described in schizophrenia. The integration of nanoarchaea and viroids in to the eukaryotic and human genome produces a chimera which can multiply producing biofilm like multicellular structures having a mixed archaeal, viroidal and eukaryotic characters which is a regression from the multicellular eukaryotic tissue. This results in a new neuronal, metabolic, immune and tissue phenotype leading to human diseases like schizophrenia, autism and primary seizure disorder. The microchimeras formed can lead to polyploidy. Neuronal polyploidy and microchimeras have been described in schizophrenia and autism.

The archaea and viroids can regulate the nervous system including the NMDA/GABA thalamo-cortico-thalamic pathway mediating conscious perception.[2, 34] NMDA/GABA receptors can be modulated by digoxin induced calcium oscillations resulting in NMDA/glutamic acid decarboxylase (GAD) activity induction, PAH increasing NMDA activity and inducing GAD as well as viroid induced RNA interference modulating NMDA/GABA receptors.[2] The cholesterol ring oxidase generated pyruvate can be converted by the GABA shunt pathway to glutamate and GABA. Increased NMDA transmission has been described in schizophrenia, autism and primary seizure disorder. The dipolar PAH and archaeal magnetite in the setting of digoxin induced sodium potassium ATPase inhibition can produce a pumped phonon system mediated Frohlich model superconducting state inducing quantal perception with nanoarchaeal sensed gravity producing the orchestrated reduction of the quantal possibilities to the

macroscopic world.[2, 34] The quantal perception mediated by actinidic archaea and viroids gives rise to the phenomena of the collective unconscious. This can mediate extrasensory perceptive phenomena in humans. Schizophrenia and autism are described as a disorder of consciousness and increased integration of archaea and viroids into the genome can contribute to its neuropathogenesis. The archaea can regulate limbic lobe transmission with archaeal cholesterol aromatase/ring oxidase generated norepinephrine, dopamine, serotonin and acetyl choline.[17] The archaea can thus regulate the sympathetic and parasympathetic system regulating visceral function. Increased dopaminergic and serotoninergic transmission is important in the pathogenesis of schizophrenia and autism. The higher degree of integration of the archaea into the genome produces increased digoxin synthesis producing right hemispheric dominance and lesser degree producing left hemispheric dominance[2]. Right hemispheric dominance has been described in schizophrenia, autism and primary seizure disorder. The increased integration of archaea into the neuronal genome can produce increased cholesterol oxidase and aromatase mediated monoamine and NMDA transmission producing schizophrenia, autism and primary seizure disorder.

The archaeal bile acids are chemically diverse and structurally different from human bile acids. The archaeal bile acids can bind olfactory GPCR receptors and stimulate the limbic lobe producing a sense of social identity. The dominance of archaeal bile acids over human bile acids in stimulating the olfactory GPCR-limbic lobe pathway leads to loss of social identity and schizophrenia/autism.[35] The archaeal bile acids are important as modulators of the limbic lobe and gives social, group and racial identity to humans.

Archaea and RNA viroid can bind the TLR receptor induce NFKB producing immune activation and cytokine TNF alpha secretion. The archaeal DXP and mevalonate pathway metabolites can bind γδ TCR and digoxin induced calcium

signalling can activate NFKB producing chronic immune activation.[2, 36] The archaea and viroid induced chronic immune activation and generation of superantigens can lead on to autoimmune disease. Immune activation and autoimmunity is important in the pathogenesis of schizophrenia, autism and primary seizure disorder. Autoantibodies have been described in schizophrenia, autism and primary seizure disorder.

Archaea, viroids and digoxin can induce the host AKT PI3K, AMPK, HIF alpha and NFKB producing the Warburg metabolic phenotype[37]. The increased glycolytic hexokinase activity, decrease in blood ATP, leakage of cytochrome C, increase in serum pyruvate and decrease in acetyl CoA indicates the generation of the Warburg phenotype. There is induction of glycolysis, inhibition of PDH activity and mitochondrial dysfunction resulting in inefficient energetics. Mitochondrial dysfunction can lead onto NMDA excitotoxicity and cell death important in schizophrenia and primary seizure disorder. Cholesterol oxidase activity, increased glycolysis related NADPH oxidase activity and mitochondrial dysfunction generates free radicals important in the pathogenesis of schizophrenia, autism and primary seizure disorder. The accumulated pyruvate enters the GABA shunt pathway and is converted to citrate which is acted upon by citrate lyase and converted to acetyl CoA, used for cholesterol synthesis[37]. The pyruvate can be converted to glutamate and ammonia which is oxidised by archaea for energy needs. The increased cholesterol substrate leads to increased archaeal growth and digoxin synthesis leading to metabolic channeling to the mevalonate pathway. Hyperdigoxinemia is important in the pathogenesis of schizophrenia, autism and primary seizure disorder[2].

The Warburg phenotype can contribute to the pathogenesis of schizophrenia by augmenting the bacterial shikimic acid pathway. The upregulated glycolysis consequent to the Warburg phenotype produces phosphoenolpyruvate, a basic

substrate for the bacterial shikimic acid pathway which can synthesise monoamines and neuroactive alkaloids. The shikimic acid pathway can generate dopamine and serotonin producing the increased monoaminergic transmission in schizophrenia. The shikimic acid pathway can also synthesise the neuroactive alkaloids strychnine, nicotine, morphine, mescaline and LSD important in the pathogenesis of schizophrenia and autism. Endogenous neuroactive alkaloids have been described in schizophrenia, autism and primary seizure disorder by several workers[2]. The upregulated glycolysis can also contribute to increased NMDA and GABA transmission in the thalamo-cortico-thalamic pathway. The glycolytic pathway produces phosphoglycerate which is converted to phosphoserine and then serine which activates the NMDA receptor. The glycolytic enzyme glyceraldehyde-3-phosphate dehydrogenase is a GABA receptor kinase and activates GABA transmission. Thus the archaea and viroid induced Warburg phenotype can contribute to the pathogenesis of schizophrenia, autism and primary seizure disorder. The archaeal cholesterol catabolism can deplete the cell membranes of cholesterol resulting in alteration in lipid microdomains and their related neurotransmitter receptor contributing to the altered NMDA, serotoninergic and dopaminergic transmission in schizophrenia, autism and primary seizure disorder.

Thus the actinidic archaea and viroids can regulate brain function. The actinidic archaea and viroids can modulate multiple neurotransmitter systems - monoaminergic, glutamatergic, GABAergic and cholinergic. An actinidic archaea and viroid mediated model of conscious and quantal perception is postulated. The actinidic archaea and viroids also play a role in the genesis of hemispheric dominance. It is dysfunction of the archaea and viroidal mediated regulatory mechanisms of brain function and consciousness that leads to schizophrenia and autism.

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