Climate Change and Global Catastrophes

Ravikumar Kurup & Parameswara Achutha Kurup

Open Science

Climate Change and Global Catastrophes

Ravikumar Kurup

Parameswara Achutha Kurup

Open Science

ISBN: 978-1-946898-27-2

Published in 2017 by Open Science Publishers

228 Park Ave., S#45956, New York, NY 10003, U.S.A.

http://www.openscienceonline.com

Contents

Chapter 1

Climate Change and Human Species-Homo Neanderthalis, Homo Sapiens, Homo Sapien Extinctus and Homo Neoneanderthalis - Relation to Catastrophic Extinction

Endosymbiotic Archaea and Species Evolution

The global warming leads to endosymbiotic as well as colonic archaeal growth leading to alteration in the structure and function of the human body and system. The archaeal overgrowth within the cells leads to generation of new cellular organelle called archaeaons. The archaea have the shikimate pathway which can synthesize tyrosine and dopamine. Dopamine can be converted to dopachrome and epinephrine to adrenochrome. Dopachrome and adrenochrome can polymerize by oxidation generating melanin. The archaeaons secreting melanin can be called as archaeal melanosomes. The melanin in melanosomes has the wide range of absorption of the light spectra and gamma radiation and can transduct it to generate energy. This energy transduction can split water into H_2 and O_2 and generate protons modulating the proton gradient across the mitochondrial membrane synthesizing ATP. The melanin in the melanosome can absorb photons reducing ubiquinone to ubiquinol and generate ATP synthesis by oxidative phosphorylation. Thus the melanin in the archaeaons in the human cell can function as photosynthetic organelle. The archaeaons and their melanin can utilize gamma radiation to synthesize ATP and can exist in extreme conditions. Thus the archaeaons can produce a source of energy from light and electromagnetic waves and gamma radiation. The melanin is capable of transducting electromagnetic waves and low level electromagnetic fields and can be capable of quantal perception. Thus the melanin in the melanosomes is capable of information sensing and storage as well as energy production from electromagnetic waves and water. The human brain could have evolved by this mechanism. The humans are hairless as compared to other primates and are exposed to more of light inducing melanin induced photosynthesis and energy generation which could have contributed to the evolution of the human cortex and the complex human brain. The archaeaons melanosomes are capable of

quenching free radicals and resist phagocytic destruction. The melanosomes can also resist radiation and UV light. The archaeaons are indestructible and eternal. The archaeaons have got magnetite and are capable of quantal perception and information storage. The melanin also serves the purpose of quantal perception and information storage. The archaeaon can also synthesize magnetite particles forming subcellular organelle called magnetosomes. Magnetite can interact with melanin forming supermolecular complex systems. The archaeaon can synthesize porphyrins which can self organize to form self replicating structures called porphyrions. Porphyrions can interact with melanin also forming supramolecular complex systems. Eumelanin pigments contain indole based tetramers that are arranged in porphyrin-like domains. The indole based structures can self organize on porphyrin scaffolds to form tetrameric structures and melanin. The chemical structure of melanin on a macromolecular scale exhibit a tetrameric ring structure possibly because of self organization on porphyrin scaffolds. Porphyrion can generate melanosome complexes and they can form self organizing supramolecular complex systems. The archaeaon particles of melanosomes, magnetosomes and porphyrions forming complex colony network with specialized functions. It can function as a quantal computing system. The porphyrions and melanosomes can transducer energy and synthesize ATP functioning as primitive photosynthetic system. The magnetosome, porphyrions and melanosomes can function as information storage systems. Magnetosomes and porphyrions are dipolar and can have a quantal perceptive function based on sodium potassium ATPase inhibition mediated pumped phonon system. The melanin can function as a superconductor for high frequency radiation and neurotransmission, as a semi-conductor for sound and heat, conduct body ionic charges and resonate for the frequencies of visible light. The archaeaon-magnetosome, porphyrions and melanosome network can function as a quantal computing brain reducing the

human classical brain to a zombie brain. Thus the global warming induced archaeaon colony network and melanosomes are indestructible and eternal and takeover the human body. The human body metabolic programmes are suppressed including mitochondrial oxidative phosphorylation. The human body is reduced to a zombie or a framework for the archaeaon colony to thrive. The archaeaon induces stem cell transformation of the host human cells and change the metabolonomics of the human cells. The human cells oxidative phosphorylation is suppressed and it depends upon glycolysis for its energy needs. The human glycolytic pathway is taken over by the archaeaon for its needs. The glycolytic metabolites are channelled to the shikimic acid pathway and the D-xylulose phosphate pathway. The DXP pathway can synthesize cholesterol which is catabolized by the archaeaon for its energy. The cholesterol ring oxidases convert the cholesterol to pyruvate which then enters the GABA shunt pathway. The cholesterol side chain oxidases convert the side chain to short chain fatty acids and bile acids. The cholesterol aromatases converts the cholesterol ring to phenyl residues and synthesis of tyrosine and tryptophan. The shikimic acid pathway also utilizes substrates from the glycolytic pathway and generates tyrosine and tryptophan. The tyrosine that synthesize is converted to dopa, dopamine, dopachrome and oxidized to melanin. Melanin serves the purpose of capturing electromagnetic radiation, UV rays, Gamma radiation and light synthesizing ATP. Melanin can serve as a substrate for primitive archaeal photosynthesis. This leads to alteration in brain function and structure. The brain functions as an archaeaon melanosomal magnetite colony network capable of quantal perception, information storage and energy generation. This alters the brain function to an impulsive and anarchic mode of social function and functioning of the society as a group or collective organism. The quantal perception of the archaeaons also leads to evolution of a sort of communication with the quantal world creating a sort of universal personality or self. The

human cell and system is converted to the stem cell colony which is immature and lacking functional differentiation becoming a zombie for the archaeal colony. The melanosome and melanin form a first line of defence against infection and is required for innate immunity. The melanosomes can kill the bacteria, viruses and other organisms as is evidenced by the albinism related Chediak Higashi syndrome and Griscelli syndrome. The archaeal melanin also protects it against high temperature, chemicals, oxygen radicals, oxidizing agents, UV radiation and heavy metals. The archaeal melanin makes the endosymbiotic archaea indestructible.

Intergalactic Archaeal Quantal Computing Cloud Universalis

The intergalactic space contains microorganism especially extremophiles like archaea. The archaeal colony with its melanosomes, magnetosomes and porphyrions can form a giant quantal computing cloud in the intergalactic space functioning as a intergalactic superhuman intelligence. The porphyrions can form a template for the generation of RNA viroids, DNA viroids and prions which can self organize to form archaeaons. The porphyrions themselves are capable of a wave-particle existence and self replication. Thus the quantal computing cloud of extraterrestrial intelligence can arise on its own from the quantal electromagnetic fields of the intergalactic space. This extraterrestrial intelligence of quantal computing cloud of archaeaons, magnetosomes, melanosomes and porphyrions in the intergalactic space can be called as intergalactic archaeal quantal computing cloud universalis. This forms the ubiquitous anthropomorphic observer creating the universe out of the quantal foam, itself arising out the quantal foam. The porphyrins can arise sui generis from a quantal foam and forms a template for the formation of RNA viroids. An interstellar cloud of RNA viroids forms. The RNA viroids later code for DNA

viroids and prions. An isoprenoid organism can also arise in the porphyrin scaffold. The interstellar cloud of dominant RNA viroids gives rise to a form of universal consciousness or gravitational waves. The RNA viroids can generate electric currents by the piezoelectric effect where mechanical energy due to the shearing stress of RNA viroidal population is converted to electrical energy and this can give rise to gravitational waves and consciousness. The helical protein of the viruses has negative and positive charged ends and acts as a dipole. When they are squashed by shearing stress of viroidal population the rod shape of the viroids gets changed to oval and dipole becomes uneven. This generates electromagnetic forces and gravitational waves. The gravitational wave forms the basis of consciousness. The RNA viroidal population can have a silicon coating and can reach the earth by asteroidal hits and gives rise to endogenous retroviruses. The human endogenous retroviruses contribute to the plasticity the human genome and the development of synaptic connectivity important for the evolution of the prefrontal cortex. The RNA viroidal population best thrives in the presence of gravity and play an important role in the development of human cerebral cortex in homo sapiens. The homo sapien brain is cerebral cortical dominant with a fully developed human consciousness due to increase in HERV sequences which increases genomic plasticity and synaptic connectivity. The homo sapiens are creatures with dominant conscious function and are logical and rational. The interstellar RNA viroidal population contributes to consciousness and gravitational waves which are linked. The intergalactic dark matter and dark energy contributes to nearly 90% of the universe energy. The dark energy contributes to antigravity forces which are repulsive and contributes to expansion of the universe. The dark energy, dark matter and antigravity contribute to the collective unconscious and human unconscious. The dark matter is made up of melanotic archaeal networks which form huge clouds in the universe. The melanotic archaea arise abiogenetically from porphyrin

scaffolds which get structured out of the quantal foam spontaneously. On this porphyrin scaffolds the RNA viroids, the DNA viroids, prions, melanin and isoprenoids organisms form which symbiose to form the melanotic archaea. Thus the porphyrion/RNA viroidal population which mediates gravity and consciousness gives rise to melanotic archaeal clouds and antigravity mediating the collective unconscious. Thus gravity gives rise to antigravity and consciousness gives rise to the unconsciousness. The melanotic archaea can use antigravitational waves, cosmic radiation and gamma radiation as energy source for ATP synthesis. The dark matter of melanotic archaea contributing to antigravity thrives and multiplies in zero gravity situations. The melanotic archaea contains magnetite which can repulse each other when properly aligned contributing to the repulsive antigravity. The antigravity is related to the collective unconscious in the world as well as the human unconscious which is structured in the cerebellum. The dark matter containing melanotic archaea gets transferred to Eurasian land mass and earth by asteroidal hits and forms giant colonies and networks evolving to homo neanderthalis. The homo neanderthalis brain has a cerebellar dominant structure and function and is impulsive with a predominant unconscious function. The conscious function and cerebral cortex is less developed in homo neanderthalis as they are retroviral resistant. The archaea induces stem cell conversion and secretes digoxin which makes the homo neanderthalis cell population retroviral resistant. The deficiency of HERV sequences leads to maldevelopment of the homo neanderthalis cerebral cortex. The homo neanderthalis are impulsive creatures of the unconscious modulated by antigravitational waves. This extraterrestrial intelligence of quantal computing cloud can see life in different parts of the galaxies via asteroids and meteors. The human species evolved out of the seeded archaeaons from the extraterrestrial intelligence of the quantal computing cloud formed of the archaeal colony of archaeaons-magnetosomes, melanosomes and porphyrions.

This would have reached the earth by meteoric and asteroidal hits. The hits of the meteors and asteroids would have occurred first in the Eurasian landmass especially in the northern Siberian tundra. The homo neanderthalis would have evolved in this Eurasian landmass. As the Siberian Eurasian landmass was cold and dark the homo neanderthalis were depigmented and fair-coloured, hairless with sparse red hair. They were deficient in melanin and melanin induced energy transduction and photosynthesis leading to synthesis of ATP. The homo neanderthalis was energy deprived and the neanderthalic cortex was primitively formed and the cerebellum dominated their cognitive function. The endosymbiotic archaeal network in the brain with its magnetosomes, melanosomes and porphyrions form a primitive quantal computing system. This functions as an information receptive and storage system in communication with the extraterrestrial intelligence of the quantal computing cloud in the intergalactic space. The homo neanderthalis owing to its lack of melanosomes and innate immunity became relatively extinct over a period of time with fossilized remnants in different parts of the world. The homo neanderthalis had quantal perception which created a feeling of oneness with gender and social equality in society. The society was gender equal and matriarchal. The matriarchal societies of the Dravidians, Basque, Celts, Harappans, Sumerians and Jews were fossilised remnants of the homo neanderthalis species. The extremes of cold temperature of the ice age led to the growth of endosymbiotic archaea in the absence of melanosomes in the Neanderthal. The melanosomes function as the first line of defence against infection and is important in innate immunity. The absence of melanosomes would have led to defective innate immunity and eventual partial extinction of homo neanderthalis with preservation of fossilised matrilineal clusters. The fossilised matrilineal neanderthalic clusters are present in different parts of the world. The fossilised homo neanderthalis are susceptible to increased archaeal endosymbiosis

consequent to global warming and related civilizational diseases of metabolic syndrome, schizophrenia, cancer, autoimmune disease and degeneration. The homo neanderthalis will become extinct owing to civilizational disease consequent to global warming induced endosymbiotic archaeal growth.

The Homo Sapiens

The homo sapiens evolved in the tropical hot African landmass. The first human species to evolve is the homo neanderthalis in the Eurasian steppes. The homo sapiens would have evolved out of the archaea secreted porphyrions and RNA viroids independently. The porphyrions could have been transmitted to the tropical African landmass and would have served as a substrate for the formation of RNA viroids, DNA viroids and prions which symbiosed to form the primitive eukaryotic cell. The high temperature of the African continent would have contributed to mutations in RNA viroids and DNA viroids leading on to rapid evolution. The sub-Saharan African soil is depleted of selenium. Selenium deficiency leads to RNA viroidal mutations. Thus extremes of temperature and selenium deficiency lead to RNA viroidal diversity. This RNA viroidal diversity would have led to rapid evolution of homo sapiens from the eukaryotic cell. This eukaryotic cell would have evolved into homo sapiens species over a period of time. The RNA viroids are the basis of the HERV genes which contributes to the dynamicity of the homo sapien genome. The homo neanderthalis on the other hand are retroviral resistant while the homo sapiens is retroviral sensitive. The homo neanderthalis archaeaon secretes digoxin, a steroidal hormone which can destroy the retrovirus. The homo neanderthalis also has got endosymbiotic cholesterol catabolizing archaea which can alter the membrane sites for retroviral binding making the Neanderthal species resistant to retroviral infection. The homo neanderthalis have got a deficiency of HERV jumping genes in the genome and a rigid genome as compared to the HERV

sequences mediated flexible genome of the homo sapiens. The homo sapiens as they evolved in the hot African savannah would have been exposed to heat and light. This would have related in increased melanogenesis and darker skin and plenty of hair in the evolved homo sapiens. The homo sapiens owing to their dark colour would have been energy surplus consequent to melanin induced energy transduction and ATP synthesis. This would have led to the evolution of the human cortex. The RNA viroids integrated into the genome would have function as jumping HERV genes contributing to the dynamicity of the genome. A dynamic and flexible genome is required for the development of synaptic connectivity and cerebral cortex. Thus the homo sapiens evolve the modern human cerebral cortex consequent to the surplus energy produced by melanin induced energy transduction and ATP synthesis. The increase in melanin and melanosomes increased the innate immunity of the homo sapiens making them resistant to endogenous archaeal endosymbiosis. The homo sapiens were resistant to endosymbiotic archaeal growth seen in extremes of climate of global warming and ice age. The homo sapiens which evolved out of hot tropical Africa had increased melanin content in the skin which inhibits archaeal endosymbiosis and neanderthalisation. The homo sapien species is thus protected against increased archaeal endosymbiosis consequent to global warming and related civilizational diseases of metabolic syndrome, schizophrenia, cancer, autoimmune disease and degeneration.

Homo Sapien Albino Mutants and Homo Neoneanderthalis

The homo sapiens developed albino mutants which lacked the tyrosinase enzyme. These albino homo sapien mutants could not survive in the hot African savannah due to lack of pigmentation and migrated to the southern European landmass. This evolved into the patrilineal homo sapien European civilization. The patrilineal homo sapien European civilization arose out of the homo sapien

patrilineal African civilization. The albino mutants homo sapiens forming the European civilization are susceptible to endosymbiotic archaeal growth consequent to global warming. The albino mutants homo sapiens lack melanin and melanosomes important in innate immunity. This leads to fertile conditions for endosymbiotic archaeal growth in the albino mutants, Caucasoid population. The endosymbiotic archaeal growth in the Caucasoid population leads to the evolution of a new human species. The human zombie controlled by endosymbiotic melanotic magnetite archaeaon colony network can be called as a new species-homo neoneanderthalis. Thus the species change is occurring in the albino mutant homo sapien population of Europe and American consequent to global warming and endosymbiotic archaeal growth. The homo neoneanderthalis species and fossilized homo neanderthalis are susceptible to increased archaeal endosymbiosis consequent to global warming and related civilizational diseases of metabolic syndrome, schizophrenia, cancer, autoimmune disease and degeneration. The homo neanderthalis and homo neoneanderthalis will become extinct owing to civilizational disease consequent to global warming induced endosymbiotic archaeal growth.

Homo Sapien Extinctus

The homo neanderthalis and homo neoneanderthalis have endosymbiotic archaeal symbiosis. The endosymbiotic archaea secrete RNA viroids which can be acted upon by HERV reverse transcriptase generating corresponding DNA sequences which can be integrated into the genome by HERV integrase. The archaeal digoxin can edit the RNA viroids producing widespread diversity. The archaeal porphyrins can serve as a template for the generation of RNA viroids, DNA viroids and prions. The RNA viroids and DNA viroids can recombine with RNA and DNA viruses in the environment generating new RNA and DNA viruses. The RNA and DNA viroids can exchange their sequences with

environmental bacteria generating new bacteria. Thus there can be endogenous generation of new RNA viruses, DNA viruses and bacteria in homo neanderthalis and homo neoneanderthalis consequent to endosymbiotic archaeal overgrowth as a result of global warming. The homo neanderthalis and homo neoneanderthalis are resistant to this newly generated RNA viruses, DNA viruses and bacteria and act as an environmental reservoir for them. The new evolved RNA virus, DNA virus and bacteria generated from environmental reservoir of homo neanderthalis and homo neoneanderthalis infects the unprotected homo sapien species exterminating the homo sapien species. The homo sapien species is in decline as the homo sapien albino mutants are getting converted to homo neoneanderthalis and the African/Asian homo sapiens are getting exterminated by epidemics of new RNA viral infection generated by Neanderthal reservoirs. This homo sapien species can be called as homo sapien extinctus.

The archaea can induce stem cell conversion and neanderthalisation of the human species. The archaea catabolises cholesterol generating digoxin which can modulate RNA editing and magnesium deficiency resulting in reverse transcriptase inhibition. The archaeal cholesterol catabolism can deplete the membrane rafts of the CD_4 cell of cholesterol impeding the entry of the retrovirus into the cell. The archaea can produce permanent immune activation producing resistance to viral and bacterial infection. The archaeal cholesterol catabolism depletes tissue cholesterol producing vitamin D deficiency and immune activation. Thus archaeal overgrowth results in retroviral resistance and generation of the Neanderthal phenotype. The endosymbiotic archaea can secrete virus like RNA and DNA particles. The endosymbiotic archaea can induce uncoupling proteins inhibiting mitochondrial oxidative phosphorylation and generating ROS. The endosymbiotic archaeal magnetite can generate low level of EMF. The low level of EMF and ROS are genotoxic and produce breakages in hotspots of chromosome. It can also trigger rearrangements in

hotspots of chromosome inhabited by retroviral and non-retroviral elements producing their expression. The archaeal secreted DNA and RNA viroids can recombine with the expressed retroviral, non-retroviral elements and other genomic segments of the human chromosome generating new RNA and DNA viruses. Thus the neanderthalised humans can serve as an origin for new RNA and DNA viruses as well as mutated retroviruses. The endosymbiotic archaea converts the Neanderthal cells to stem cells. The stem cells are resistant to immune attack. The stem cells can serve as a reservoir for this new RNA and DNA viruses. The stem cells and archaeal cells can also serve as a reservoir for viruses and bacteria belonging to other plants and animals. This helps to generate the species barrier jump in noted in recent emerging viral and bacterial infections. Thus the endosymbiotic archaeal growth produces neanderthalised version of homo sapiens which are retroviral resistant and resistant to other viral and bacterial infection consequent to immune activation and digoxin induced RNA editing. The endosymbiotic archaeal overgrowth mediated neanderthalised version of homo sapiens generates new mutated RNA and DNA viruses as well as retroviruses at the same time being resistant to them as in the case of the species bat. The homo sapiens do not have the Neanderthal mechanisms of immune activation as their archaeal load is meagre. They serve as fodder for infection from Neanderthal generated viruses and bacteria and suffer eventual extinction.

Global Warming and Symbiotic Evolution

Thus global warming leads to symbiotic evolution of the species. The extraterrestrial intergalactic quantal computing cloud of archaea forms an intelligent anthropomorphic observer. The quantal computing cloud of archaea seeds the archaea into the earth through meteoric and asteroidal impacts. The archaeal colonies eventually evolve into multicellular organism and further into homo neanderthalis. The homo neanderthalis can be conceived as a

multicellular archaeal colony. The homo neanderthalis thus arises in earth in the Eurasian land mass out of the seeded archaeal colonies from the extraterrestrial intergalactic archaeal computing cloud. The homo neanderthalis is energy depleted. The homo neanderthalis secretes the archaeal steroidal trephone digoxin which modulates the neutral amino acid transporter increasing tryptophan transport over tyrosine. The homo neanderthalis is tyrosine depleted and deficient in melanin synthesis. There is no melanin induced ATP synthesis from electromagnetic waves and radiation transduction. The homo neanderthalis was energy depleted and therefore did not have the luxury for the development of a modern human cerebral cortex. The homo neanderthalis is also retroviral resistant. The homo neanderthalis were deficient in endogenous retroviral sequences contributing to a rigid and adynamic homo neanderthalic genome. This led to a reduction in synaptic connectivity and poor development of the homo neanderthalic cerebral cortex. The homo sapiens evolved out of terrestrial sources in Africa out of self replicating porphyrin complexes. The self replicating porphyrin complexes form a scaffold for supramolecular complexes of isoprenoid organism, RNA viroids, DNA viroids and prions to self organize. The isoprenoid organism formed the cell container which symbiosed the RNA viroids, the DNA viroids and prions to form the primitive eukaryotic and prokaryotic cell. The eukaryotic organism developed into multicellular colonies and eventually evolved into homo sapiens in Africa. Thus the homo sapiens is a multicellular eukaryotic colony which evolved over a period of time. In case of oncogenesis the homo sapiens reverts to the primitive eukaryotic or prokaryotic multicellular colony state. The homo sapiens in Africa thus evolved out of terrestrial abiogenetic sources. The homo sapiens owing to the harsh tropical environmental of Africa had increased melanin pigmentation in the skin for protection from UV rays as an evolutionary mechanism and were black. The homo sapien brain evolved out of the energy excess state produced by melanin.

Melanin can transduce electromagnetic waves and radiation and produce ATP synthesis. The excess energy in homo sapiens led to the rapid evolution of the human cerebral cortex. The homo sapiens are also retroviral sensitive. The retroviral infection led to integration of retroviral genes into the homo sapien genome producing endogenous retroviral sequences functioning as jumping genes. The HERV gene contributes to dynamicity and flexibility of the homo sapien genome contributing to increased synaptic connectivity and formation of the human cerebral cortex. A tyrosinase mutation led to the evolution of homo sapien albino mutants. The homo sapien albino mutants being white were unable to withstand the hot climate of the African tropics and migrated to the cold European land mass. This created the homo sapien civilization in Europe. There was interbreeding between the homo sapien albino mutants and homo neanderthalis in southern Europe producing hybrids. The homo neanderthalis were matriarchal while homo sapiens albino mutants were patriarchal. The homo neanderthalis succumbed to civilizational diseases like metabolic syndrome X, tumours, autoimmune disease and neurodegeneration and became extinct leaving fossilized matrilineal societies like the Dravidians, Celts, Basques and Jews behind. The homo sapien albino mutants in the setting of global warming developed extremophilic endosymbiotic archaeal growth and gets converted to a homo neoneanderthalic species by the phenomena of symbiotic evolution. The homo sapiens species in Africa becomes liable to eventual extinction owing to infection by catastrophic epidemics of RNA viruses arising from homo neanderthalis and homo neoneanderthalis reservoirs. Endosymbiotic archaeal growth will lead to a species change and generation of two new species-homo sapien extinctus and homo neoneanderthalis. Death and aging indicates human endogenous archaeal overgrowth and takeover. This will lead to extinction of the human race as such and persistence as well as survival of the archaeaon colony of melanosomes, magnetosomes and porphyrions functioning as a quantal

computing colony and intelligence. This will lead to the takeover of the world and the universe by the terrestrial and extraterrestrial archaeaon quantal computing clouds. The symbiotic evolution will eventually lead to extinction of all human species into eternal archaeal colonies which can have a wave-particle existence.

The Human Species-Terrestrial and Extraterrestrial Origin

The homo sapiens evolved in earth from porphyrinoids generated abiogenetically. The porphyrinoid forms a template for the formation of RNA viroids, DNA viroids, isoprenoid organisms and prions which symbiosed to form the eukaryotic and prokaryotic cells. The eukaryotic multicellular colony evolved into homo sapiens. The prokaryotes can also form multicellular functional colonies called biofilms. The homo sapiens which evolved in the African savannah became pigmented owing to melanisation of the skin in response to the solar UV rays. The homo sapiens have skin melanin but owing to lack of endosymbiotic archaea are deficient in tissue melanin. The homo sapiens in view of the absence of endosymbiotic archaea and tissue melanin are susceptible to endogenous retroviral replication and a dynamic genome leading on to increased synaptic connectivity and evolution of the prefrontal cortex. The homo neanderthalis evolved in the Eurasian steppes out of extraterrestrial archaeal colonies hitting the earth by asteroidal impacts. The archaeal colonies evolved into multicellular structures and eventually homo neanderthalis. The endosymbiotic archaea have the shikimic acid pathway and melanin synthesis. The homo neanderthalis are rich in tissue melanin but having evolved in the cold Eurasian steppes are deficient in cutaneous melanin. The increase in tissue melanin inhibits endogenous retroviral replication. This decreases the density of endogenous retroviral jumping genes in the homo neanderthalis genome making it rigid and inflexible. This rigid inflexible genome leads to the reduction in

synaptic connectivity and poor development of the cerebral cortex in the homo neanderthalis. The homo neanderthalis have a dominant cerebellar cortex and are impulsive in nature. The increased tissue melanin in homo neanderthalis is capable of energy transduction giving them a survival advantage in the extremes of the Eurasian north. The melanin is capable of sensing low EMF fields contributing to extrasensory perceptive capacity of the homo neanderthalis. The homo sapiens developed tyrosinase deficient albino mutants which could not survive in the tropical Africa and migrated to the European continent. The albino mutants lack melanin and are susceptible to endosymbiotic archaeal symbiosis leading to the genesis of homo neoneanderthalis from homo sapiens. Thus the human species can have a terrestrial origin as in the case of homo sapiens in Africa and also an extraterrestrial origin from intergalactic archaea as in the case of homo neanderthalis. There is also an intermediate species evolved in out of homo sapien albino mutants with endosymbiotic archaeal symbiosis called homo neoneanderthalis.

Global Warming, Endosymbiotic Archaea, Species Change and Catastrophic Extinction

The actinide based nanoarchaea can regulate the earth's carbon cycle by methanogenesis, nitrogen cycle by ammonia oxidation and rain formation by contributing the seeding nucleus. The earth's temperature and global warming and cooling are regulated by nanoarchaeal synthesized PAH from cholesterol and methanogenesis. The archaeal synthesis of PAH and methane may be the principal contribution to global warming. Global warming and pollution are pivotal inducers of evolutionary innovation.

Catastrophic evolutionary cycles may be related to extensive nanoarchaeal growth in the ocean beds. The increased nanoarchaeal growth in ocean beds and soil leads to increased methane production and movement of the earth's crust

producing tsunamis and massive earthquake leading to catastrophic mass extinction. The eternal nanoarchaea survive and start the cycle of evolution once more. The actinide based nanoarchaea regulates the human system and biological universe.

The archaea can induce stem cell conversion and neanderthalisation of the human species. The archaea catabolises cholesterol generating digoxin which can modulate RNA editing and magnesium deficiency resulting in reverse transcriptase inhibition. The archaeal cholesterol catabolism can deplete the membrane rafts of the CD_4 cell of cholesterol impeding the entry of the retrovirus into the cell. The archaea can produce permanent immune activation producing resistance to viral and bacterial infection. The archaeal cholesterol catabolism depletes tissue cholesterol producing vitamin D deficiency and immune activation. Thus archaeal overgrowth results in retroviral resistance and generation of the Neanderthal phenotype. The endosymbiotic archaea can secrete virus like RNA and DNA particles. The endosymbiotic archaea can induce uncoupling proteins inhibiting mitochondrial oxidative phosphorylation and generating ROS. The endosymbiotic archaeal magnetite can generate low level of EMF. The low level of EMF and ROS are genotoxic and produce breakages in hotspots of chromosome. It can also trigger rearrangements in hotspots of chromosome inhabited by retroviral and non-retroviral elements producing their expression. The archaeal secreted DNA and RNA viroids can recombine with the expressed retroviral, non-retroviral elements and other genomic segments of the human chromosome generating new RNA and DNA viruses. Thus the neanderthalised humans can serve as an origin for new RNA and DNA viruses as well as mutated retroviruses. The endosymbiotic archaea converts the Neanderthal cells to stem cells. The stem cells are resistant to immune attack. The stem cells can serve as a reservoir for this new RNA and DNA viruses. The stem cells and archaeal cells can also serve as a reservoir for

viruses and bacteria belonging to other plants and animals. This helps to generate the species barrier jump in noted in recent emerging viral and bacterial infections. Thus the endosymbiotic archaeal growth produces neanderthalised version of homo sapiens which are retroviral resistant and resistant to other viral and bacterial infection consequent to immune activation and digoxin induced RNA editing. The endosymbiotic archaeal overgrowth mediated neanderthalised version of homo sapiens generates new mutated RNA and DNA viruses as well as retroviruses at the same time being resistant to them as in the case of the species bat. The homo sapiens do not have the Neanderthal mechanisms of immune activation as their archaeal load is meagre. They serve as fodder for infection from Neanderthal generated viruses and bacteria and suffer eventual extinction.

References

[1] Kurup, R. K. and Kurup, P. A. Global Warming, Archaea and Viroid Induced Symbiotic Human Evolution - Retrovirus, Prions and Viroids - Porphyrinoids and Viroidelle. New York: Open Science Publishers, 2016.

Chapter 2

Climate Change and Catastrophies-The End of the World - Endosymbiotic Actinidic Archaea, Galactic Evolution, Global Warming and Catastrophic Evolutionary Cycles

Introduction

A hypothesis regarding cholesterol based abiogenesis and its role in the evolution of universe is elucidated. 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 has 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. Actinide based primitive organism like archaea have a mevalonate pathway and cholesterol catabolism.[5, 6, 7] Davies has put forward the concept of a shadow biosphere of organisms with alternate biochemistry present in earth itself.[8] This points to cholesterol as the primal prebiotic molecule and evolution of actinidic archaea and viroids from a primitive isoprenoid organism.

Metal actinides in beach sands have been postulated to play a role in abiogenesis.[6] Actinide mineral like rutile, monazite and illmenite by surface metabolism would have contributed to abiogenesis.[9] A hypothesis of cholesterol as the primal prebiotic molecule synthesized on actinide surfaces with all other biomolecules arising from it and a self replicating cholesterol lipid organism as the initial life form is presented. The role of actinidic archaea in the genesis of the interstellar polycyclic aromatic hydrocarbons as well as the interstellar magnetic fields important in the evolution of the universe is hypothesized. The role of actinidic archaea in global warming and evolutionary cycles 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: - 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. 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.[10] 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, muramic acid, polycyclic aromatic hydrocarbon, hydrogen peroxide, serotonin, pyruvate, ammonia, glutamate, cytochrome C, hexokinase, ATP synthase, HMG CoA reductase, digoxin and bile acids.[11-14] 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 1-7 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 muramic acid.*

Group	**CYT F420 % (Increase with Rutile)**		**CYT F420 % (Decrease with Doxy+Cipro)**		**Muramic acid % change (Increase with Rutile)**		**Muramic acid % 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
EMF	22.70	1.87	60.46	8.06	23.73	1.38	65.20	6.20
F value	306.749		130.054		391.318		257.996	
P value	< 0.001		< 0.001		< 0.001		< 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
EMF	22.29	2.05	58.70	7.34	22.29	2.05	67.03	5.97
F value	337.577		356.621		427.828		654.453	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 3. *Effect of rutile and antibiotics on HMG CoA reductase and ATP synthase.*

Group	HMG CoA R % change (Increase with Rutile)		HMG CoA R % change (Decrease with Doxy+Cipro)		ATP synthase % (Increase with Rutile)		ATP synthase % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Normal	4.30	0.20	18.35	0.35	4.40	0.11	18.78	0.11
Schizo	22.91	1.92	61.63	6.79	23.67	1.42	67.39	3.13
Seizure	23.09	1.69	61.62	8.69	23.09	1.90	66.15	4.09
AD	23.43	1.68	61.68	8.32	23.58	2.08	66.21	3.69
MS	23.14	1.85	59.76	4.82	23.52	1.76	67.05	3.00
NHL	22.28	1.76	61.88	6.21	24.01	1.17	66.66	3.84
DM	23.06	1.65	62.25	6.24	23.72	1.73	66.25	3.69
AIDS	22.86	2.58	66.53	5.59	23.15	1.62	66.48	4.17
CJD	22.38	2.38	60.65	5.27	23.00	1.64	66.67	4.21
Autism	22.72	1.89	64.51	5.73	22.60	1.64	66.86	4.21
EMF	22.92	1.48	61.91	7.56	23.37	1.31	63.97	3.62
F value	319.332		199.553		449.503		673.081	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 4. *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+Cipro)	
	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
AD	0.55	0.03	0.192	0.040	22.12	2.19	62.86	6.28
MS	0.52	0.03	0.214	0.032	21.95	2.11	65.46	5.79
NHL	0.54	0.04	0.210	0.042	22.98	2.19	64.96	5.64
DM	0.47	0.04	0.202	0.025	22.87	2.58	64.51	5.93
AIDS	0.56	0.05	0.220	0.052	22.29	1.47	64.35	5.58
CJD	0.53	0.06	0.212	0.045	23.30	1.88	62.49	7.26
Autism	0.53	0.08	0.205	0.041	22.21	2.04	63.84	6.16
EMF	0.51	0.05	0.213	0.033	23.41	1.41	58.70	7.34
F value	135.116		71.706		290.441		203.651	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

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

Group	Pyruvate % change (Increase with Rutile)		Pyruvate % change (Decrease with Doxy+Cipro)		Hexokinase % change (Increase with Rutile)		Hexokinase % change (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
EMF	22.29	2.05	62.37	5.05	21.66	1.94	67.03	5.97
F value	321.255		115.242		292.065		317.966	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 6. *Effect of rutile and antibiotics on hydrogen peroxide and delta amino levulinic acid.*

Group	H_2O_2 % (Increase with Rutile)		H_2O_2 % (Decrease with Doxy+Cipro)		ALA % (Increase with Rutile)		ALA % (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
EMF	23.29	1.67	60.52	5.38	22.29	2.05	61.91	7.56
F value	380.721		171.228		372.716		556.411	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Table 7. *Effect of rutile and antibiotics on PAH and serotonin.*

Group	PAH % (Increase with Rutile)		PAH % (Decrease with Doxy+Cipro)		5 HT % change (Increase with Rutile)		5 HT % 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
AD	23.66	1.67	65.97	3.36	23.09	1.81	65.86	4.27
MS	22.92	2.14	67.54	3.65	21.93	2.29	63.70	5.63
NHL	23.81	1.90	66.95	3.67	23.12	1.71	65.12	5.58
DM	24.10	1.61	65.78	4.43	22.73	2.46	65.87	4.35
AIDS	23.43	1.57	66.30	3.57	22.98	1.50	65.13	4.87
CJD	23.70	1.75	68.06	3.52	23.81	1.49	64.89	6.01
Autism	22.76	2.20	67.63	3.52	22.79	2.20	64.26	6.02
EMF	22.28	1.52	64.05	2.79	22.82	1.56	64.61	4.95
F value	403.394		680.284		348.867		364.999	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

Global Warming, Endosymbiotic Archaea and RNA Viroids

There was increase in cytochrome F420 indicating archaeal growth. The archaea can synthesize and use cholesterol as a carbon and energy source.[15, 16] 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.[17] 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.[16] The pyruvate gets converted to glutamate and ammonia by the GABA shunt pathway. The archaeal aromatization of cholesterol generating PAH, serotonin and dopamine was also detected.[18] 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.[19]

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 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.[20] 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 noncoding DNA using HERV integrase as has been described for borna and ebola viruses.[21] 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.[22] The integrated viroids and archaea can undergo vertical transmission and can exist as genomic parasites.[21, 22] This increases the length and alters the grammar of the noncoding region producing memes or memory of acquired characters.[23] The viroidal complementary DNA can function as jumping genes producing a dynamic genome.

The presence of muramic acid, HMG CoA reductase and cholesterol oxidase activity inhibited by antibiotics indicates the presence of bacteria with mevalonate pathway. The bacterial with mevalonate pathway include streptococcus, staphylococcus, actinomycetes, listeria, coxiella and borrelia.[24] The bacteria and archaea with mevalonate pathway and cholesterol catabolism had a evolutionarily advantage and constitutes the isoprenoidal clade organism with the archaea evolving into mevalonate pathway gram positive and gram negative organism through horizontal gene transfer of viroidal and virus genes.[25] The isoprenoidal clade prokaryotes develop into other groups of prokaryotes via viroidal/virus as well as eukaryotic horizontal gene transfer producing bacterial speciation.[26] The RNA viroids and its complementary DNA developed into cholesterol enveloped RNA and DNA viruses like herpes, retrovirus, influenza virus, borna virus, cytomegalo virus and ebstein barr virus by recombining with eukaryotic and human genes resulting in viral speciation. Bacterial and viral species are ill defined and fuzzy with all of them forming one common genetic pool with frequent horizontal gene transfer and recombination. Thus the multi and unicellular eukaryote with its genes serves the purpose of prokaryotic and viral speciation. The multicellular eukaryote

developed so that their endosymbiotic archaeal colonies could survive and forage better. The multicellular eukaryotes are like bacterial biofilms. The archaea and bacteria with a mevalonate pathway uses the extracellular RNA viroids and DNA viroids for quorum sensing and in the generation of symbiotic biofilm like structures which develop into multicellular eukaryotes.[27, 28] The endosymbiotic archaea and bacteria with mevalonate pathway still uses the RNA viroids and DNA viroids for the regulation of multicellular eukaryote.

Pollution is induced by the primitive nanoarchaea and mevalonate pathway bacteria 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.[29] 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, archaeal and mevalonate pathway bacterial sequences can undergo vertical transmission and can exist as genomic parasites. The genomic integrated archaea, mevalonate pathway bacteria and viroids form a genomic reserve of bacteria and viruses which can recombine with human and eukaryotic genes producing bacterial and viral speciation. The change in the length and grammar of the noncoding region produces eukaryotic speciation and individuality.[30] The integration of nanoarchaea, mevalonate pathway prokaryotes 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, prokaryotic 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 disease.[31-34]

Actinidic Archaea, Abiogenesis And origin of Universe

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 acetate which could get converted to acetyl CoA and then to cholesterol which functions as the primal prebiotic molecule self organizing into self replicating supramolecular systems, the lipid organism.[8, 9, 35] Cholesterol by radiolysis by actinides would have formed PAH generating PAH aromatic organism.[8] Cholesterol radiolysis would generate pyruvate which would get converted to amino acids, sugars, nucleotides, porphyrins, fatty acids and TCA acids. Anastase and rutile surfaces can produce polymerization of amino acids, isoprenyl residues, PAH and nucleotides to generate the initial lipid organism, PAH organism, prions and RNA viroids which would have symbiosed to generate the archaeal protocell. The archaea evolved into gram negative and gram positive bacteria with a mevalonate pathway which had an evolutionary advantage and the symbiosis of archaea with gram negative organism generated the eukaryotic cell.[36] The data supports the persistence of an actinide and cholesterol based shadow biosphere which throws light on the actinide based origin of life and cholesterol as the premier prebiotic molecule.

The archaea can synthesize magnetite by biomineralization. The archaeal cholesterol catabolism can generate PAH. The archaea can exist as nanoarchaea and can have calcified nanoforms. The actinidic magnetotactic nanoarchaea and its secreted PAH organisms are extremophiles and survive in the interstellar space and can contribute to the interstellar grains and magnetic fields which play a role in the formation of the galaxies and star systems.[37] The cosmic dust

grains 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 bacteria play 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 bacteria have the property to affect the degree of alignment that is observed. The fact that the magnetotactic bacteria 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 bacteria 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 bacteria 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 bacterial growth. Cosmic biology of magnetotactic bacteria 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 bacteria and the cosmic biology of interstellar bacteria 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 points to a cosmic intelligence or brain capable of computation, analysis and exploration of the universe at large - of magnetotactic bacterial networks. The interstellar PAH aromatic organism is formed from nanoarchaeal cholesterol catabolism. The PAH and cholesterol are the interconvertible primal prebiotic molecules. PAH aromatic organism and nanoarchaeal magnetite can have a wave particle existence and bridge the world of bosons and fermions. The nanoarchaea can form biofilms and the PAH aromatic 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 magnetite loaded nanoarchaeal biofilms and PAH aromatic 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 origin of life on earth according to the Hoyle’s hypothesis would be by seeding of bacteria from the outer intergalactic space. Comets carrying micro-organisms would have interacted with the earth. A thin skin of graphitized material around a single bacteria or clumps of bacteria 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.[38, 39]

Endosymbiotic Archaea and Catastrophic Evolutionary Cycles

The actinide based nanoarchaea can regulate the earth's carbon cycle by methanogenesis, nitrogen cycle by ammonia oxidation and rain formation by contributing the seeding nucleus. The earth's temperature and global warming and cooling are regulated by nanoarchaeal synthesized PAH from cholesterol and methanogenesis. The archaeal synthesis of PAH and methane may be the principal contribution to global warming. Global warming and pollution are pivotal inducers of evolutionary innovation.

Catastrophic evolutionary cycles may be related to extensive nanoarchaeal growth in the ocean beds. The increased nanoarchaeal growth in ocean beds and soil leads to increased methane production and movement of the earth's crust producing tsunamis and massive earthquake leading to catastrophic mass extinction.[40] The eternal nanoarchaea survive and start the cycle of evolution once more. The actinide based nanoarchaea regulates the human system and biological universe.

References

[1] Valiathan M. S., Somers, K., Kartha, C. C. (1993). *Endomyocardial Fibrosis.* Delhi: Oxford University Press.

[2] Kurup R., Kurup, P. A. (2009). *Hypothalamic digoxin, cerebral dominance and brain function in health and diseases*. New York: Nova Science Publishers.

[3] Hanold D., Randies, J. W. (1991). Coconut cadang-cadang disease and its viroid agent, *Plant Disease*, 75, 330-335.

[4] Edwin B. T., Mohankumaran, C. (2007). Kerala wilt disease phytoplasma: Phylogenetic analysis and identification of a vector, *Proutista moesta*, *Physiological and Molecular Plant Pathology*, 71(1-3), 41-47.

[5] Eckburg P. B., Lepp, P. W., Relman, D. A. (2003). Archaea and their potential role in human disease, *Infect Immun*, 71, 591-596.

[6] Adam Z. (2007). Actinides and Life's Origins, *Astrobiology*, 7, 6-10.

[7] Schoner W. (2002). Endogenous cardiac glycosides, a new class of steroid hormones, *Eur J Biochem*, 269, 2440-2448.

[8] Davies P. C. W., Benner, S. A., Cleland, C. E., Lineweaver, C. H., McKay, C. P., Wolfe-Simon, F. (2009). Signatures of a Shadow Biosphere, *Astrobiology*, 10, 241-249.

[9] Wächtershäuser G. (1988). Before enzymes and templates: theory of surface metabolism, *Microbiol Rev*, 52(4), 452-84.

[10] Richmond W. (1973). Preparation and properties of a cholesterol oxidase from nocardia species and its application to the enzymatic assay of total cholesterol in serum, *Clin Chem*, 19, 1350-1356.

[11] Snell E. D., Snell, C. T. (1961). *Colorimetric Methods of Analysis.* Vol 3A. New York: Van Nostrand.

[12] Glick D. (1971). *Methods of Biochemical Analysis.* Vol 5. New York: Interscience Publishers.

[13] Colowick, Kaplan, N. O. (1955). *Methods in Enzymology.* Vol 2. New York: Academic Press.

[14] Maarten A. H., Marie-Jose, M., Cornelia, G., van Helden-Meewsen, Fritz, E., Marten, P. H. (1995). Detection of muramic acid in human spleen, *Infection and Immunity*, 63(5), 1652-1657.

[15] Smit A., Mushegian, A. (2000). Biosynthesis of isoprenoids via mevalonate in Archaea: the lost pathway, *Genome Res*, 10(10), 1468-84.

[16] Van der Geize R., Yam, K., Heuser, T., Wilbrink, M. H., Hara, H., Anderton, M. C. (2007). A gene cluster encoding cholesterol catabolism in a soil actinomycete

provides insight into Mycobacterium tuberculosis survival in macrophages, *Proc Natl Acad Sci USA*, 104(6), 1947-52.

[17] Francis A. J. (1998). Biotransformation of uranium and other actinides in radioactive wastes, *Journal of Alloys and Compounds*, 271(273), 78-84.

[18] Probian C., Wülfing, A., Harder, J. (2003). Anaerobic mineralization of quaternary carbon atoms: Isolation of denitrifying bacteria on pivalic acid (2,2-Dimethylpropionic acid), *Applied and Environmental Microbiology*, 69(3), 1866-1870.

[19] Vainshtein M., Suzina, N., Kudryashova, E., Ariskina, E. (2002). New Magnet-Sensitive Structures in Bacterial and Archaeal Cells, *Biol Cell*, 94(1), 29-35.

[20] Tsagris E. M., de Alba, A. E., Gozmanova, M., Kalantidis, K. (2008). Viroids, *Cell Microbiol*, 10, 2168.

[21] Horie M., Honda, T., Suzuki, Y., Kobayashi, Y., Daito, T., Oshida, T. (2010). Endogenous non-retroviral RNA virus elements in mammalian genomes, *Nature*, 463, 84-87.

[22] Hecht M., Nitz, N., Araujo, P., Sousa, A., Rosa, A., Gomes, D. (2010). Genes from Chagas parasite can transfer to humans and be passed on to children. Inheritance of DNA Transferred from American Trypanosomes to Human Hosts, *PLoS ONE*, 5, 2-10.

[23] Flam F. (1994). Hints of a language in junk DNA, *Science*, 266, 1320.

[24] Horbach S., Sahm, H., Welle, R. (1993). Isoprenoid biosynthesis in bacteria: two different pathways? *FEMS Microbiol Lett*, 111, 135-140.

[25] Gupta R. S. (1998). Protein phylogenetics and signature sequences: a reappraisal of evolutionary relationship among archaebacteria, eubacteria, and eukaryotes, *Microbiol Mol Biol Rev*, 62, 1435-1491.

[26] Hanage W., Fraser, C., Spratt, B. (2005). Fuzzy species among recombinogenic bacteria, *BMC Biology*, 3, 6-10.

[27] Whitchurch C. B., Tolker-Nielsen, T., Ragas, P. C., Mattick, J. S. (2002). Extracellular DNA Required for Bacterial Biofilm Formation. *Science*, 295(5559), 1487.

[28] Webb J. S., Givskov, M., Kjelleberg, S. (2003). Bacterial biofilms: prokaryotic adventures in multicellularity, *Curr Opin Microbiol*, 6(6), 578-85.

[29] Chen Y., Cai, T., Wang, H., Li, Z., Loreaux, E., Lingrel, J. B. (2009). Regulation of intracellular cholesterol distribution by Na/K-ATPase, *J Biol Chem*, 284(22), 14881-90.

[30] Poole A. M. (2006). Did group II intron proliferation in an endosymbiont-bearing archaeon create eukaryotes? *Biol Direct*, 1, 36-40.

[31] Lockwood M. (1989). *Mind, Brain and the Quantum*. Oxford: B. Blackwell.

[32] Eberl M., Hintz, M., Reichenberg, A., Kollas, A., Wiesner, J., Jomaa, H. (2010). Microbial isoprenoid biosynthesis and human γδ T cell activation, *FEBS Letters*, 544(1), 4-10.

[33] Wallace D. C. (2005). Mitochondria and Cancer: Warburg Addressed, *Cold Spring Harbor Symposia on Quantitative Biology*, 70, 363-374.

[34] Lefebvre P., Cariou, B., Lien, F., Kuipers, F., Staels, B. (2009). Role of Bile Acids and Bile Acid Receptors in Metabolic Regulation, *Physiol Rev*, 89(1), 147-191.

[35] Russell M. J., Martin, W. (2004). The rocky roots of the acetyl-CoA Pathway, *Trends in Biochemical Sciences*, 29, 7.

[36] Margulis L. (1996). Archaeal-eubacterial mergers in the origin of Eukarya: phylogenetic classification of life, *Proc Natl Acad Sci USA*, 93, 1071-1076.

[37] Tielens A. G. G. M. (2008). Interstellar Polycyclic Aromatic Hydrocarbon Molecules, *Annual Review of Astronomy and Astrophysics*, 46, 289-337.

[38] Wickramasinghe C. (2004). The universe: a cryogenic habitat for microbial life, *Cryobiology*, 48(2), 113-125.

[39] Hoyle F., Wickramasinghe, C. (1988). *Cosmic Life-Force*. London: J. M. Dent and Sons Ltd.

[40] Dun D. (2005). *The Black Silent*. New York: Pinnacle Books.

Chapter 3

Climate Change, Species Change and Conflicts-The Modern Neanderthal Civilization and the Cro-Magnon Neanderthal Conflict- Evidence from Human Biology

Introduction

The extremes of climate change produce endosymbiotic archaeal growth. The archaea are cholesterol catabolising organism. This results in neanderthalisation of the human species. This occurred during the ice age and is possibly a continuing phenomenon during the periods of global warming. The homo neanderthalis are matrilineal and the residual matrilineal societies of the Dravidians, Semites, Basques, Celts and Berbers are neanderthalic. The global warming produces endosymbiotic archaeal growth and neanderthalisation. This produces brain changes with the cerebral cortex becoming dysfunctional and cerebellum becoming dominant. This is due to increased perception of low level EMF by archaeal magnetite. This produces changes in human society, behaviour and disease patterns.[1-17]

There is a high incidence of autism and Neanderthal anthropometric phenotypes in the Nair community of Kerala. The Nair community is matrilineal and is one of the few functional matriarchies in the world and speaks the Dravidian language with similarities to Celtic, Scythian, Berber and Basque societies. The autistic brain is comparable to the large sized Neanderthal brain. Autistic and matrilineal societies like Nair can be considered as fossilized remnants of the Neanderthal population. Endosymbiotic actinidic archaea using cholesterol as an energy substrate has been described in systemic disease from our laboratory. The autistic and Nair population were studied for actinide dependent cytochrome F420 activity suggestive of endosymbiotic archaeal growth.[1-17] This hypothesis was studied by evaluating the endosymbiotic archaeal growth in populations derived from matrilineal societies.

Materials and Methods

Three groups, 25 numbers in each group were chosen for the study - the autistic population diagnosed according to DSM criteria, the normal Nair population and the normal non-Nair population. The matrilineal characteristics and Neanderthal anthropometric characteristics of normal Nair and non-Nair population as well as autistic population were studied. The blood samples were drawn in the fasting state before treatment was initiated. The estimations done in the blood samples collected include cytochrome F420 activity, Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm). The statistical analysis was done by ANOVA.

Results

The results of the study were as follows. The Nair and autistic and civilizational disease group had increased cytochrome F420 activity.

Table 1. *Incidence of autism in Nair, autistic and non-Nair population.*

Groups	Autism	Percentage
Nair	68 cases	68
Non-Nair	32 cases	32
Total	100	

Table 2. *Anthropometric features in Nair, autistic and non-Nair population.*

Groups	Neanderthal anthropometric	Total	Percentage
Nair	72 cases	100	72
Non-Nair	21 cases	100	21
Autism	81 cases	100	81

Table 3. *Neanderthal metabolonomics.*

		Nair	Non-Nair	Autism	F value	P value
Cytochrome F420	Mean	4.00	0.00	4.00	0.001	< 0.001
	± SD	0.00	0.00	0.00		

Discussion

Fossilised Neanderthal Clusters

Neanderthalisation is a symbiotic event due to archaeal symbiosis. The Neanderthals had increased symbiotic actinidic archaeal growth. This occurs in extremes of climate like ice age and global warming. The homo neanderthalis evolved from the bonobo primates consequent to this symbiosis. There is increased neanderthalisation of homo sapiens during global warming consequent to increased actinidic archaeal growth. The homo neanderthalis never became extinct but survives as matrilineal societies in the lower Eurasian region. The initial matrilineal neanderthalic civilizations were the Harappan, Sumerian-Akkadian, Assyrian, Etruscan, Minoan, Celtic, Basque, Semitic, Jewish, Arabic, Australian aboriginal civilization. The civilizations are all matrilineal. The initial neanderthalic civilization survives as the lower caste sudras of India, Dravidians, Australian aboriginals, the Persians, the Semitic Arabs, the Semitic Jews, the Berbers, the Basque, Greeks, Celts and native Americans. The people inhabiting these civilizations are religious, intuitive, feminine, child-like, dreamy, somnolent, communal conscious, primitive socialistic, more sexual groups. The body habitus of these populations are shorter, sloping forehead, recessive chin and more fairer in colour. This is opposed to the Cro-Magnon population in the northern part of Eurasia and Africa. These populations are scientific, logical minded, patriarchal, more adult-like, more wakeful, fascist and less sexual. The neanderthalic populations inhabit the Indian ocean rim in southern Asia, west Asia as well as in the peri-Mediterranean region. The Neanderthals originated initially from the mythical Lemurian supercontinent in the Indian ocean. The earthquakes and tsunamis in the Indian ocean led to the breakage of the supercontinent and migration of Neanderthals to Harappa, Sumeria, Egypt and Basque. The Harappan civilization was predominantly neanderthalic. They are the asuras

described in the Rig veda. Most of the descriptions in the Rig veda pertain to the asuras with the Rig vedic Gods being predominantly asuric. Sanskrit was possibly the Harappan language. The devas described in the Rig veda were the Cro-Magnon Aryan invaders. The Rig veda describes continuing conflict between the asuras and the devas. Finally the neanderthalic Harappan asuras were subdued and conquered. The cro-magnonic Aryans who conquered Harappa became the upper caste Hindu elite and the Harappans asuras became the lower caste sudras. The Cro-Magnon Aryans took over the asuric Gods, Vedas and language and made it their own. The Harappan civilization of the asuras was extremely advanced and the Cro-Magnon Aryans were a primitive nomadic tribe. The Cro-Magnon originated in Africa and migrated to Eurasia. The Cro-Magnon population subdued the neanderthalic population and tried to exterminate them. There was also interbreeding and intermixing between the Cro-Magnon and neanderthalic population. The modern neanderthalic societies are in the peri-Indian ocean area of India, Iran and Semitic Arabs. They also inhabit the peri-Mediterranean area as Semitic Jews, Berbers, Basque and Celts. The predominant African and north European population is Cro-Magnon.

Neanderthal Cro-Magnon Conflict-a Continuing Event

There is an eternal conflict between Neanderthals and Cro-Magnon. The Cro-Magnon tried to exterminate the Neanderthals but they survived as the Jews, Arabs, the lower caste Indians, aboriginals and native Americans. These are the people which the Cro-Magnon excluded from society. The underclass of Indian and European civilization was neanderthalic. With the advent of global warming an increasing archaeal symbiosis the neanderthalic population becomes activated and they try to exterminate the Cro-Magnon. The symbiotic archaea generates new viruses which infects the non immune Cro-Magnon and tries to exterminate them. The hot spots of global conflict and terrorism can be

localized to neanderthalic areas. The Neanderthals dominate three world religions-Jews, Muslims and Hindus. The Cro-Magnon are predominantly the Africans and the Europeans. They follow the Christian religion. World conflicts are basically between the neanderthalic races and the Cro-Magnon races. This is exemplified by the Jewish leadership of the Russian and French revolutions with its idea of liberty, equality and fraternity. The neanderthalic ideas basically tried to create an equal society. The Buddhist movement and religion among the religious lower caste of India can be thought of as a neanderthalic uprising against the Aryan Cro-Magnon domination. The present rumblings in the Muslim Semitic world manifesting as global terrorism is a reflection of the neanderthalic Cro-Magnon conflict. The conflict is basically between the Cro-Magnon ideas of colonization, capitalism, free market globalization, rightist, fascist, nazi ideas and the neanderthalic ideas of equality, democracy, freedom and socialism. The cro-magnic civilization produces increased greenhouse gases leading to increased endosymbiotic archaeal growth. Endosymbiotic archaeal growth is the basis of neanderthalisation. Neanderthalisation is a symbiotic event and not a genetic change. This results in expansion of the existing neanderthalic societies - the Semites, the Dravidians and southern Europeans and extinction of the Cro-Magnon Aryan phenotype. The present neanderthalic areas include south Europe, India, Iran, the Arab peninsula, the Jewish homeland and the Australian aboriginals. The Cro-Magnon areas include Europe and Africa.

The Neanderthal and Cro-Magnon Brain-Neoneanderthalisation

The Neanderthals were cerebellar dominant. The cerebellum is concerned with intuition and extrasensory perceptive phenomena. The Neanderthals were retroviral resistant. The archaea metabolises cholesterol and generates digoxin which produces membrane sodium potassium ATPase inhibition and

intracellular magnesium deficiency. Magnesium deficiency produces reverse transcriptase inhibition. Digoxin itself modulates RNA editing. The retroviral resistance leads to a deficiency of endogenous retroviral sequences. The endogenous retroviral sequences function as jumping genes required for the dynamicity of synaptic connectivity. Dynamic synaptic connectivity is required for cortical function. The cerebral cortex is dysfunctional in Neanderthals leading to cerebellar dominance. The Neanderthals inhabit a cerebellar world. The neanderthalic population is psychedelic, spiritual, dreamy, more feminine, intuitive, equal and female dominant. They had a communal life. They were hyper sexual and promiscuous. They can be compared to bonobo monkeys. They were matriarchal and female dominant. They are child-like have dreamy sleep, somnolent, altruistic and docile. The neanderthalic population believed in communal living and was of hyper sexual behaviour. The unconscious mind was dominant in Neanderthals. They had precognition and postcognition. They had telepathy and clairvoyance. They could have mediumistic possession and could go into hypnotic regression. They had poltergeist phenomena, group personality, multiple personality, split personality alien abduction phenomena, memory of past life, incubus and succubus. They had a magical civilization of dreams. They were subjective, personal, emotional, irrational and dreamy. They preferred the dark and nights. They had more of autism and schizophrenia. They had more of attention deficit hyperactivity and addiction. They were magical, had dominant art and religion were sexual and believed in things without proof. The belief was intuitive. They had shamanistic and magical consciousness. The Neanderthals were left handed and right hemisphere/cerebellar dominant. They were creatures of the senses and created a spiritual dreamy civilization. They were children of the dark. The self old brain of vampires, troglodytes, demons and the occult belongs to the Neanderthals. The cerebellar dominance and hypertrophy leads to cerebellar dysfunction and ataxia of speech as well as

motor movements. Ataxic speech leads to the evolution of music. Ataxia of motor movements leads to abstract art. Thus the Neanderthal brain with its extrasensory perception is extremely artistic. Digoxin and dipolar magnetite in the setting of membrane sodium potassium ATPase inhibition produces a pumped phonon system modulating quantal perception. Quantal perceptive phenomena are dominant in Neanderthals. This leads to increased extrasensory perception. This also produces a feeling of oneness and equality called the collective unconscious. This produces the socialistic equal Neanderthal society. The Neanderthals were also more spiritual and unconscious dominant. The cortical dysfunction leads to loss of hemispheric differentiation and sexual differentiation. Right hemisphere is predominantly masculine and the left hemisphere feminine. This results in asexual behaviours and cerebellar dominance leads to hypersexuality. The Cro-Magnon population believed in pair bonding and family patterns. They were more violent and aggressive. They were patriarchal and male dominant. They were adult-like and logical. They had rightist and fascist tendencies. They were conservative in their sexual practices. They were conscious, egoistic, wakeful, male dominant, favoured the light, objective, impersonal and cruel. The conscious logical brain dominated. They depended upon proofs, logic were detached, asexual and male dominant. The Cro-Magnon were predominantly left hemisphere dominant and right handed practical people. They created a material civilization. They had a rational consciousness. They were children of the light.

The global warming produces endosymbiotic archaeal growth and neanderthalisation of homo sapiens. All these produce a dualistic consciousness. The left wing versus right wing and the conservative versus liberal. It produces a double self and divided self. It results in a Caine and Abel as well as Jekyll and Hyde personality. The Neanderthals had sloping forehead, small jaw, occipital bun and large cranium. They were shorter in height and the body

weight was bigger. The brain size of Neanderthals was larger. The second toe of the feet was bigger than the big toe. They had the simian crease. The homo sapiens had a smaller brain and smaller cranium. They were taller.[1-17]

References

[1] Weaver TD, Hublin JJ. Neandertal Birth Canal Shape and the Evolution of Human Childbirth. *Proc. Natl. Acad. Sci. USA* 2009; 106: 8151-8156.

[2] Kurup RA, Kurup PA. Endosymbiotic Actinidic Archaeal Mediated Warburg Phenotype Mediates Human Disease State. *Advances in Natural Science* 2012; 5(1): 81-84.

[3] Morgan E. The Neanderthal theory of autism, Asperger and ADHD; 2007, www.rdos.net/eng/asperger.htm.

[4] Graves P. New Models and Metaphors for the Neanderthal Debate. *Current Anthropology* 1991; 32(5): 513-541.

[5] Sawyer GJ, Maley B. Neanderthal Reconstructed. The Anatomical Record Part B: *The New Anatomist* 2005; 283B(1): 23-31.

[6] Bastir M, O'Higgins P, Rosas A. Facial Ontogeny in Neanderthals and Modern Humans. *Proc. Biol. Sci.* 2007; 274: 1125-1132.

[7] Neubauer S, Gunz P, Hublin JJ. Endocranial Shape Changes during Growth in Chimpanzees and Humans: A Morphometric Analysis of Unique and Shared Aspects. *J. Hum. Evol.* 2010; 59: 555-566.

[8] Courchesne E, Pierce K. Brain Overgrowth in Autism during a Critical Time in Development: Implications for Frontal Pyramidal Neuron and Interneuron Development and Connectivity. *Int. J. Dev. Neurosci*. 2005; 23: 153-170.

[9] Green RE, Krause J, Briggs AW, Maricic T, Stenzel U, Kircher M, Patterson N, Li H, Zhai W, *et al*. A Draft Sequence of the Neandertal Genome. *Science* 2010; 328: 710-722.

[10] Mithen SJ. *The Singing Neanderthals: The Origins of Music, Language, Mind and Body*; 2005, ISBN 0-297-64317-7.

[11] Bruner E, Manzi G, Arsuaga JL. Encephalization and Allometric Trajectories in the Genus Homo: Evidence from the Neandertal and Modern Lineages. *Proc. Natl. Acad. Sci. USA* 2003; 100: 15335-15340.

[12] Gooch S. *The Dream Culture of the Neanderthals: Guardians of the Ancient Wisdom.* Inner Traditions, Wildwood House, London; 2006.

[13] Gooch S. *The Neanderthal Legacy: Reawakening Our Genetic and Cultural Origins.* Inner Traditions, Wildwood House, London; 2008.

[14] Kurtén B. *Den Svarta Tigern*, ALBA Publishing, Stockholm, Sweden; 1978.

[15] Spikins P. Autism, the Integrations of 'Difference' and the Origins of Modern Human Behaviour. *Cambridge Archaeological Journal* 2009; 19(2): 179-201.

[16] Eswaran V, Harpending H, Rogers AR. Genomics Refutes an Exclusively African Origin of Humans. *Journal of Human Evolution* 2005; 49(1): 1-18.

[17] Ramachandran V. S. The Reith lectures, BBC London. 2012.

Chapter 4

Climate Change and Epidemics-The Origin of Retroviral Resistance and Emerging Viral Pandemics - The Crossing of Species Barrier and New Viruses

Introduction

Studies from our laboratory have shown that global warming and the low level EMF pollution results in increased endosymbiotic archaeal growth. The archaea can produce methanogenesis from hydrogen and carbon dioxide as well as from acetate. The human body methanogenesis can result in more global warming. Methane has got a short term action but its global warming potential is 29 times that of carbon dioxide. Thus the human endosymbiotic archaeal overgrowth is the principal cause of global warming. Global warming is initially triggered by carbon dioxide and EMF pollution produced by homo sapien industrialization. It is carried forward by human endosymbiotic archaeal overgrowth and methanogenesis. The archaea can induce stem cell conversion and neanderthalisation of the human species. The archaea catabolises cholesterol generating digoxin which can modulate RNA editing and magnesium deficiency resulting in reverse transcriptase inhibition. The archaeal cholesterol catabolism can deplete the membrane rafts of the CD_4 cell of cholesterol impeding the entry of the retrovirus into the cell. The archaea can produce permanent immune activation producing resistance to viral and bacterial infection. The archaeal cholesterol catabolism depletes tissue cholesterol producing vitamin D deficiency and immune activation. Thus archaeal overgrowth results in retroviral resistance and generation of the Neanderthal phenotype. The endosymbiotic archaea can secrete virus like RNA and DNA particles. The endosymbiotic archaea can induce uncoupling proteins inhibiting mitochondrial oxidative phosphorylation and generating ROS. The endosymbiotic archaeal magnetite can generate low level of EMF. The low level of EMF and ROS are genotoxic and produce breakages in hotspots of chromosome. It can also trigger rearrangements in hotspots of chromosome inhabited by retroviral and non-retroviral elements producing their expression.

The archaeal secreted DNA and RNA viroids can recombine with the expressed retroviral, non-retroviral elements and other genomic segments of the human chromosome generating new RNA and DNA viruses. Thus the neanderthalised humans can serve as an origin for new RNA and DNA viruses as well as mutated retroviruses. The endosymbiotic archaea converts the Neanderthal cells to stem cells. The stem cells are resistant to immune attack. The stem cells can serve as a reservoir for this new RNA and DNA viruses. The stem cells and archaeal cells can also serve as a reservoir for viruses and bacteria belonging to other plants and animals. This helps to generate the species barrier jump in noted in recent emerging viral and bacterial infections. Thus the endosymbiotic archaeal growth produces neanderthalised version of homo sapiens which are retroviral resistant and resistant to other viral and bacterial infection consequent to immune activation and digoxin induced RNA editing. The endosymbiotic archaeal overgrowth mediated neanderthalised version of homo sapiens generates new mutated RNA and DNA viruses as well as retroviruses at the same time being resistant to them as in the case of the species bat. The homo sapiens do not have the Neanderthal mechanisms of immune activation as their archaeal load is meagre. They serve as fodder for infection from Neanderthal generated viruses and bacteria and suffer eventual extinction. This paper studied the archaeal status in patients with recurrent viral infections and retroviral infections. The generation of RNA and DNA viroids from archaea was also studied.[1-17]

Materials and Methods

Blood samples were drawn from normal population, Neanderthal phenotype, retroviral infection and recurrent viral infection. 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+cerium 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 and free DNA. Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm).

Results

Plasma of Neanderthal phenotype 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 retroviral patients and those with recurrent viral infections showed similar results but the extent of increase was insignificant. The addition of antibiotics to the control plasma caused a decrease in all the parameters while addition of cerium increased their levels. The addition of antibiotics to the patient's plasma caused a decrease in all the parameters while addition of cerium increased their levels but the extent of change was more in Neanderthal phenotype sera as compared to patients with retroviral infection and recurrent viral infection. The results are expressed in tables 1-2 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time.

Table 1. *Effect of cerium and antibiotics on cytochrome F420.*

Group	CYT F420 % (Increase with Cerium)		CYT F420 % (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD
Retroviral & frequent viral infection	4.48	0.15	18.24	0.66
Neanderthal phenotype	23.46	1.87	59.27	8.86
F value	306.749		130.054	
P value	< 0.001		< 0.001	

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

Group	DNA % change (Increase with Cerium)		DNA % change (Decrease with Doxy+Cipro)		RNA % change (Increase with Cerium)		RNA % change (Decrease with Doxy+Cipro)	
	Mean	± SD	Mean	± SD	Mean	± SD	Mean	± SD
Retroviral & frequent viral infection	4.37	0.15	18.39	0.38	4.37	0.13	18.38	0.48
Neanderthal phenotype	23.40	1.51	63.68	4.66	23.08	1.87	65.09	3.48
F value	337.577		356.621		427.828		654.453	
P value	< 0.001		< 0.001		< 0.001		< 0.001	

Discussion

Archaeal Symbiosis, Stem Cell Transformation and Retroviral Resistance

The archaeal symbiosis results in cholesterol catabolism and synthesis of digoxin. Digoxin has an APOBEC-like action producing RNA editing. This mutates the HIV virus inhibiting its replication. Digoxin is a membrane sodium potassium ATPase inhibitor. It produces magnesium deficiency intracellularly. Magnesium can inhibit reverse transcriptase activity inhibiting HIV replication. Endosymbiotic archaea can induce porphyrin synthesis. Porphyrin can combine with HIV virus inactivating it. The endosymbiotic archaea produces cholesterol catabolism and uses cholesterol as an energy source. This results in modulation of membrane rafts of the CD_4 receptor resulting in retroviral resistance. The archaeal cholesterol catabolism produces cholesterol depletion and vitamin D

deficiency. This produces immune activation. The endosymbiotic archaeal growth as such produces permanent immune activation resulting in resistance to viral infections. This has been demonstrated in bacteria like mycobacterium leprae. The immune genes are always turned on inhibiting retroviral and other viral replication. The endosymbiotic archaeal growth results in turning in of uncoupling proteins transferring human somatic cells to the Warburg phenotype and stem cell type. Stem cells have the energetics obtained from glycolysis and not from mitochondrial oxidative phosphorylation. Stem cells are resistant to retroviral infection and other viral infection. Thus endosymbiotic archaeal growth can inhibit HIV replication and produce HIV resistance.[1-17]

Endosymbiotic Archaea, Stem Cell Transformation, Neanderthalisation - a Reservoir for New Viruses

Endosymbiotic archaeal growth produces neanderthalisation of the human species. The homo neanderthalis can serve as a reservoir for viral infections at the same time being resistant to it. The homo neanderthalis has the stem cell phenotype which can serve as a reservoir for bacterial and viral infection. This has been demonstrated in the case of mycobacterium tuberculosis which induces stem cell transformation and survives within the stem cell resisting immune onslaught. This protective mechanism is not available for the homo sapien species and they tend to succumb to viral infections arising from the homo neanderthalis reservoir.[1-17]

The homo neanderthalis has archaeal induced induction of uncoupling proteins producing mitochondrial oxidative phosphorylation inhibition and dominant glycolytic energetics. This results in conversion to a stem cell phenotype. The high metabolic rate results in a fever response which turns on the immune system resulting in permanent immune activation. The high temperatures also damage the cell producing a system of high efficiency DNA

repair. This results in permanent resistance to viral infections consequent to continuous immune activation and high efficiency DNA repair. The increased archaeal growth in homo neanderthalis produces uncoupling proteins and stem cell conversion making it also resistant to viral infections. This produces a system of viral reservoir in homo neanderthalis like bats which serves as a reservoir for rabies virus, Ebola virus and SARS virus. The bats also have archaeal endosymbionts. Archaeal endosymbionts have been demonstrated in the bat guano pile.[1-17]

The archaeal magnetite produces increased level of low level EMF in the homo neanderthalis producing genomic instability. The human genome contains viral sequences like the ebola virus, retro virus and the borna virus. Owing to the archaeal magnetite induced low level EMF mediated genomic instability the viral elements in the human genome gets expressed. The archaeal magnetite induced low level EMF as well as archaea itself produces permanent continuous immune activation results in protection against viral infections. Thus in the homo neanderthalis the viral elements in the genome functioning as genomic parasites gets expressed and the homo neanderthalis serves as a reservoir for viruses akin to bats which are also part of the primate kingdom. The archaea in the homo neanderthalis secretes DNA and RNA viroids which can self replicate on porphyrin templates. Virus-like particles and extracellular DNA are produced by the hyperthermophilic archaea-thermococcales. The RNA viroids can get converted to DNA by HERV reverse transcriptase and get integrated into the neanderthalic genome by integrase. The DNA viroids secreted by the archaea can also gets integrated into the human genome by integrase. Thus the archaeal RNA and DNA viroids which are of great diversity get integrated into the human genome by the action of integrase and HERV reverse transcriptase.[1-17]

The genomic instability of the neanderthalic genome consequent to low level EMF generated by archaeal magnetite as well as archaeal porphyrins

intercalating with human DNA can result in expression of viral elements of the human genome. RNA polyribonucleotides from chromosome 22q11.2 ALU sequences have been demonstrated in the sera of patients with Gulf war syndrome and multiple myloma. The exposure to genotoxic substances and low level EMF results in activation of retrotransposon ALU elements leading to the unique RNA segments in the serum. The RNA polyribonucleotides have the proteolipid cover which resists digestion by enzymes. The SARS virus spike protein is expressed consequent to complex genetic rearrangement of segmental hotspots of chromosome 7 due to catastrophic environmental EMF exposure. Humans and animals exposed the nuclear or chemical weapons or continuous low level EMF radiation produces new regulatory gene expression which are then transcribed as non-viral RNA microvissicules covered by proteolipid membranes. Low level of EMF and genotoxic agents leads to gene rearrangement of ALU sequences with generation of RNA polyribonucleotides covered by proteiolipid vesicles. The SARS virus is supposed to be due to complex reshuffling of hotspots of chromosome 7.[1-17]

The archaea produces uncoupling of the mitochondrial oxidative phosphorylation of the somatic cells. The archaeal magnetite produces expression of low level of EMF. The reactive oxygen species produced by uncoupling of mitochondrial oxidative phosphorylation and low EMF produced by archaeal magnetite are genotoxic and produces complex rearrangement of the Neanderthal genome, breakage of hotspots in the chromosome which are extremely fragile producing expression of RNA polyribonucleotides which can get converted to DNA polyribonucleotides by the enzyme HERV reverse transcriptase. The RNA and DNA polyribonucleotides packaged in proteolipid vesicles can mimic RNA and DNA viruses. The junk DNA of humans are constituted by HERV sequences and non-retroviral RNA viruses like Ebola and borna viruses. They are genomic parasites. The neanderthalic cell has increased

production of ROS consequent to archaeal induced uncoupling. The archaeal magnetite induced EMF as well as archaea induced uncoupling generated ROS are genotoxic. The exposure to ROS and low level EMF can produce rearrangement of junk DNA producing new type of RNA viruses which can get expressed. The viral-retroviral and non-retroviral elements of the human genome as well as human genomic sequences per se which are expressed can recombine with the archaeal DNA and RNA viroids producing new mutated dangerous viruses both of the RNA and DNA type in the homo neanderthalis. The homo neanderthalis have uncoupled oxidative phosphorylation and more of ROS production. The ROS serves as messengers modulating viral replication. Thus there is genomic instability inducing expression of the viral elements in the neanderthalic genome, archaeal expression of DNA and RNA viroids, recombination of DNA and RNA archaeal viroids with neanderthalic genomic viral elements which are expressed and ROS induced multiplication of newly mutated virus.[1-17]

The Extinction of Homo Sapiens by Viral Infections Generated by Neanderthal Reservoirs

The homo neanderthalis themselves are resistant to these viruses and serve as a reservoir for them like their primate brother the bat. The homo sapiens have less endosymbiotic archaeal symbiosis and have no uncoupling protein induction resulting in maintenance of their mature somatic cells as such. The homo sapien cell has dominant mitochondrial oxidative phosphorylation metabolism generating less of ROS. The homo sapiens are immunosuppressed. The homo sapiens are not permanently immune activated producing viral resistance. They don't have the stem cell phenotype. They don't have dominant archaeal mediated cholesterol catabolism modulating viral receptors. The homo sapiens don't have digoxin synthesis inhibiting RNA editing and viral replication. The homo sapiens are sitting ducks for viral infections generated by homo neanderthalis which

infects them and kills them. The homo neanderthalis which generated the viruses in the first place are resistant to the viral infections. The homo sapien species gets exterminated from the viral infection generated from homo neanderthalis. The homo neanderthalis species uses viral infection as a mechanism to eliminate the homo sapiens and produce species dominance.[1-17]

The homo neanderthalis has archaea as endosymbionts. The archaea behaves like stem cells and can induce conversion of somatic cells to stem cells. The stem cells and archaeal cells can serve as reservoirs of other species virus and bacteria like plant and animal viruses and bacteria. The plant and animal viruses and bacteria can thrive in the somatic stem cells and archaeal cells as they escape immune detection. The Neanderthals tissue system can be compared to an archaeal/stem cell colony or network which serves as a reservoir for other animal and plant species bacteria and viruses as well as a generating centre for new RNA and DNA viruses. The RNA and DNA viruses are created by recombination between expressed genetically rearranged bits of the human chromosome and virus like DNA and RNA particles secreted by the archaea. This paves way for the generation of unlimited number of new RNA and DNA viruses as well as produce conditions for viruses and bacteria to cross the species barrier. This is evidenced by the SARS virus, the nipah virus and hendra virus crossing species. The algal virus has been reported to infect human brains producing cognitive dysfunction. The generation of new RNA and DNA viruses and the creation of a stem cell/archaeal reservoir for other species bacteria and viruses, the Neanderthal resistance to infections by viruses and bacteria and the Neanderthals serving as a reservoir for infection results in widespread pandemic in the homo sapien population in Africa and their eventual wipeout.[1-17]

References

[1] Weaver TD, Hublin JJ. Neandertal Birth Canal Shape and the Evolution of Human Childbirth. *Proc. Natl. Acad. Sci.* USA 2009; 106: 8151-8156.

[2] Kurup RA, Kurup PA. Endosymbiotic Actinidic Archaeal Mediated Warburg Phenotype Mediates Human Disease State. *Advances in Natural Science* 2012; 5(1): 81-84.

[3] Morgan E. The Neanderthal theory of autism, Asperger and ADHD; 2007, www.rdos.net/eng/asperger.htm.

[4] Graves P. New Models and Metaphors for the Neanderthal Debate. *Current Anthropology* 1991; 32(5): 513-541.

[5] Sawyer GJ, Maley B. Neanderthal Reconstructed. *The Anatomical Record Part B: The New Anatomist* 2005; 283B(1): 23-31.

[6] Bastir M, O'Higgins P, Rosas A. Facial Ontogeny in Neanderthals and Modern Humans. *Proc. Biol. Sci.* 2007; 274: 1125-1132.

[7] Neubauer S, Gunz P, Hublin JJ. Endocranial Shape Changes during Growth in Chimpanzees and Humans: A Morphometric Analysis of Unique and Shared Aspects. *J. Hum. Evol.* 2010; 59: 555-566.

[8] Courchesne E, Pierce K. Brain Overgrowth in Autism during a Critical Time in Development: Implications for Frontal Pyramidal Neuron and Interneuron Development and Connectivity. *Int. J. Dev. Neurosci.* 2005; 23: 153-170.

[9] Green RE, Krause J, Briggs AW, Maricic T, Stenzel U, Kircher M, Patterson N, Li H, Zhai W, *et al*. A Draft Sequence of the Neandertal Genome. *Science* 2010; 328: 710-722.

[10] Mithen SJ. The Singing Neanderthals: The Origins of Music, Language, Mind and Body; 2005, ISBN 0-297-64317-7.

[11] Bruner E, Manzi G, Arsuaga JL. Encephalization and Allometric Trajectories in the Genus Homo: Evidence from the Neandertal and Modern Lineages. *Proc. Natl. Acad. Sci.* USA 2003; 100: 15335-15340.

[12] Gooch S. *The Dream Culture of the Neanderthals: Guardians of the Ancient Wisdom.* Inner Traditions, Wildwood House, London; 2006.

[13] Gooch S. *The Neanderthal Legacy: Reawakening Our Genetic and Cultural Origins.* Inner Traditions, Wildwood House, London; 2008.

[14] Kurtén B. *Den Svarta Tigern*, ALBA Publishing, Stockholm, Sweden; 1978.

[15] Spikins P. Autism, the Integrations of ‘Difference’ and the Origins of Modern Human Behaviour. *Cambridge Archaeological Journal* 2009; 19(2): 179-201.

[16] Eswaran V, Harpending H, Rogers AR. Genomics Refutes an Exclusively African Origin of Humans. *Journal of Human Evolution* 2005; 49(1): 1-18.

[17] Ramachandran V. S. The Reith lectures, BBC London. 2012.

Chapter 5

Climate Change and Human Extinction-The Extinction of Homo Sapiens and Symbiotic Neanderthalisation - Relation to Archaeal Mediated RNA Viroids and Amyloidosis

Introduction

Prion proteins have been implicated in systemic disorders like neurodegenerations, cancer and metabolic syndrome. The beta amyloid in Alzheimer's disease, alpha synuclein in Parkinson's disease, the TAR protein in frontotemporal dementia and copper zinc dismutase in motor neuron disease behaves like prion proteins. Prion proteins like behaviour is also seen in the tumour suppressor P_{53} protein in cancer and the islet cell associated amyloid in diabetes mellitus. Prion diseases are conformational diseases. The abnormal prion protein seeded into the system converts the normal proteins with prion like domains to abnormal configuration. This abnormal protein resists digestion by lysosomal enzymes after its half life is over and results in deposition of amyloid plaques. This produces organ dysfunction. Prion phenomena were initially described for Creutzfeldt Jakob's disease, but now it is found to be wide spread in chronic disease pathogenesis. Ribonucleoproteins are well known to behave like prion proteins and form amyloid. We have demonstrated actinidic archaea which secretes RNA viroids in metabolic syndrome, neurodegenerations, cancer, autoimmune disease, schizophrenia, autism and CJD. The RNA viroids can bind with normal proteins with prion like domains eg., superoxide dismutase and produce a ribonucleoprotein resulting in prion phenomena and amyloidogenesis. The actinidic archaeal growth results in increased digoxin synthesis and phenotypic conversion of homo sapiens to homo Neanderthals as reported earlier. The increased actinidic archaeal growth is due to global warming and this results in neanderthalisation. Homo neanderthalis tend to have more of civilizational diseases like metabolic syndrome, neurodegenerations, cancer, autoimmune disease, schizophrenia, autism and CJD. Actinidic archaeal secreted RNA viroids may play a crucial role in amyloid formation and pathogenesis of these disorders.[1-16]

Materials and Methods

The following groups were included in the study: - 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. 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+cerium 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, Cytochrome F420 was estimated flourimetrically (excitation wavelength 420 nm and emission wavelength 520 nm). 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 cerium increased their levels. The addition of antibiotics to the patient's plasma caused a decrease in all the parameters while addition of cerium increased their levels but the extent of change was more in patient's sera as compared to controls. The results are expressed in tables 1-2 as percentage change in the parameters after 1 hour incubation as compared to the values at zero time.

Results

The results show that there was increase in cytochrome F420 in CJD and other disease groups indicating increased archaeal growth. There was also an increase in free RNA indicating self replicating RNA viroids in CJD and other disease groups. The RNA viroid generation was catalysed by actinides. The RNA viroids can bind with proteins having prion like domains forming ribonucleoproteins. These ribonucleoproteins can give an abnormal conformation to the protein resulting in generation of abnormal prions. The abnormal prions can act as a template to convert normal proteins with normal configuration to abnormal conformation. This can result in amyloidogenesis. The abnormal configured proteins will resist lysosomal digestion and accumulate as amyloid.

Table 1. *Effect of cerium and antibiotics on cytochrome F420.*

Group	**CYT F420 % (Increase with Cerium)**		**CYT F420 % (Decrease with Doxy+Cipro)**	
	Mean	**± SD**	**Mean**	**± SD**
Normal	4.48	0.15	18.24	0.66
Schizo	23.24	2.01	58.72	7.08
Seizure	23.46	1.87	59.27	8.86
AD	23.12	2.00	56.90	6.94
MS	22.12	1.81	61.33	9.82
NHL	22.79	2.13	55.90	7.29
DM	22.59	1.86	57.05	8.45
AIDS	22.29	1.66	59.02	7.50
CJD	22.06	1.61	57.81	6.04
Autism	21.68	1.90	57.93	9.64
F value	306.749		130.054	
P value	< 0.001		< 0.001	

Table 2. *Effect of cerium and antibiotics on free RNA.*

Group	RNA % change (Increase with Cerium)		RNA % change (Decrease with Doxy+Cipro)	
	Mean	**± SD**	**Mean**	**± SD**
Normal	4.37	0.13	18.38	0.48
Schizo	23.59	1.83	65.69	3.94
Seizure	23.08	1.87	65.09	3.48
AD	23.29	1.92	65.39	3.95
MS	23.29	1.98	67.46	3.96
NHL	23.78	1.20	66.90	4.10
DM	23.33	1.86	66.46	3.65
AIDS	23.32	1.74	65.67	4.16
CJD	23.11	1.52	66.68	3.97
Autism	23.33	1.35	66.83	3.27
F value	427.828		654.453	
P value	< 0.001		< 0.001	

Discussion

Endosymbiotic Archaea, RNA Viroids, Amyloid and Prions

There was increase in cytochrome F420 indicating archaeal growth. The archaea can synthesise and use cholesterol as a carbon and energy source. The archaeal origin of the self replicating RNA 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 cerium induced increase in enzyme activities. There was an increase in free RNA indicating self replicating RNA viroids. The actinides 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. The RNA viroids can bind with proteins having prion like domains forming ribonucleoproteins. These

ribonucleoproteins can give an abnormal conformation to the protein resulting in generation of abnormal prions. The abnormal prions can act as a template to convert normal proteins with normal configuration to abnormal conformation. This can result in amyloidogenesis. The abnormal configured proteins will resist lysosomal digestion and accumulate as amyloid.

Amyloidogenesis has been implicated in systemic disorders. The beta amyloid in Alzheimer's disease, alpha synuclein in Parkinson's disease, the TAR protein in frontotemporal dementia and copper zinc dismutase in motor neuron disease behaves like prion proteins. Prion proteins like behaviour is also seen in the tumour suppressor P_{53} protein in cancer and the islet cell associated amyloid in diabetes mellitus. Prion diseases are conformational diseases.

The RNA viroids generated from actinidic archaea can bind to proteins with prion like domains resulting in generation of ribonucleoproteins. Ribonucleoproteins with abnormal conformation can act as a template for normal proteins with prion like domains to change to abnormal conformation. This results in generation of prion proteins with abnormal conformation resisting lysosomal digestion and generating amyloid. These systemic diseases are due to actinidic archaeal generated RNA viroid induced prion protein generation and amyloidogenesis. Prion proteins have been implicated in systemic disorders like neurodegenerations, cancer and metabolic syndrome. The beta amyloid in Alzheimer's disease, alpha synuclein in Parkinson's disease, the TAR protein in frontotemporal dementia and copper zinc dismutase in motor neuron disease behaves like prion proteins. Prion proteins like behaviour is also seen in the tumour suppressor P_{53} protein in cancer and the islet cell associated amyloid in diabetes mellitus. The present study shows that the same prion protein mechanism can operate in schizophrenia, autism and autoimmune diseases. Sporadic CJD is also induced by actinidic archaea induced RNA viroids. Actinidic archaeal induced RNA viroids generated prions can be transferred between individuals

indicating the infective nature of neurodegenerations, cancer, metabolic syndrome, autoimmune disease and neuropsychiatric diseases.

Archaeal Porphyrins, Amyloid and Prion Proteins

The archaeal porphyrins can modulate amyloid formation. The archaeal cholesterol oxidase activity was increased resulting in generation of pyruvate and hydrogen peroxide. 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. Glycine and succinyl CoA are the substrates for ALA synthesis. 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. Protoporphyrine 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.

The global warming results in increased growth of actinidic archaea and neanderthalisation of the homo sapien species. The actinidic archaea secreted viroids can generate ribonucleoproteins by binding to proteins with prion like domains. This generates amyloidogenesis and systemic diseases like neurodegenerations, cancer, metabolic syndrome, autoimmune disease and neuropsychiatric diseases. The widespread incidence of these systemic diseases leads to extinction of the neanderthalised species.

References

[1] Weaver TD, Hublin JJ. Neandertal Birth Canal Shape and the Evolution of Human Childbirth. *Proc. Natl. Acad. Sci. USA* 2009; 106: 8151-8156.

[2] Kurup RA, Kurup PA. Endosymbiotic Actinidic Archaeal Mediated Warburg Phenotype Mediates Human Disease State. *Advances in Natural Science* 2012; 5(1): 81-84.

[3] Morgan E. The Neanderthal theory of autism, Asperger and ADHD; 2007, www.rdos.net/eng/asperger.htm.

[4] Graves P. New Models and Metaphors for the Neanderthal Debate. *Current Anthropology* 1991; 32(5): 513-541.

[5] Sawyer GJ, Maley B. Neanderthal Reconstructed. *The Anatomical Record Part B: The New Anatomist* 2005; 283B(1): 23-31.

[6] Bastir M, O'Higgins P, Rosas A. Facial Ontogeny in Neanderthals and Modern Humans. *Proc. Biol. Sci.* 2007; 274: 1125-1132.

[7] Neubauer S, Gunz P, Hublin JJ. Endocranial Shape Changes during Growth in Chimpanzees and Humans: A Morphometric Analysis of Unique and Shared Aspects. *J. Hum. Evol.* 2010; 59: 555-566.

[8] Courchesne E, Pierce K. Brain Overgrowth in Autism during a Critical Time in Development: Implications for Frontal Pyramidal Neuron and Interneuron Development and Connectivity. *Int. J. Dev. Neurosci*. 2005; 23: 153-170.

[9] Green RE, Krause J, Briggs AW, Maricic T, Stenzel U, Kircher M, Patterson N, Li H, Zhai W, *et al*. A Draft Sequence of the Neandertal Genome. *Science* 2010; 328: 710-722.

[10] Mithen SJ. *The Singing Neanderthals: The Origins of Music, Language, Mind and Body*; 2005, ISBN 0-297-64317-7.

[11] Bruner E, Manzi G, Arsuaga JL. Encephalization and Allometric Trajectories in the Genus Homo: Evidence from the Neandertal and Modern Lineages. *Proc. Natl. Acad. Sci. USA* 2003; 100: 15335-15340.

[12] Gooch S. *The Dream Culture of the Neanderthals: Guardians of the Ancient Wisdom.* Inner Traditions, Wildwood House, London; 2006.

[13] Gooch S. *The Neanderthal Legacy: Reawakening Our Genetic and Cultural Origins.* Inner Traditions, Wildwood House, London; 2008.

[14] Kurtén B. *Den Svarta Tigern*, ALBA Publishing, Stockholm, Sweden; 1978.

[15] Spikins P. Autism, the Integrations of 'Difference' and the Origins of Modern Human Behaviour. *Cambridge Archaeological Journal* 2009; 19(2): 179-201.

[16] Eswaran V, Harpending H, Rogers AR. Genomics Refutes an Exclusively African Origin of Humans. *Journal of Human Evolution* 2005; 49(1): 1-18.

Chapter 6

Climate Change and World Terrorism-The Archaeal Induced Stem Cell Conversion produces an Epidemic Benjamin Buttons Reverse Aging Syndrome leading to Systemic and Neuropsychiatric Diseases and a 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 behaviour 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. *Archaeal metabolonomics.*

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. *Endosymbiotic archaea and stem cell transformation.*

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

Endosymbiotic Archaea and Stem Cell Transformation

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 catabolized 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]

Endosymbiotic Archaea, Stem Cell Transformation and Brain Function

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 an 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 transcedence 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]

The Neurology of Goodness and Evil in Relation to Neanderthalisation

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 trancedence. Coprolalic religious ritual ceremonies had been described in some parts of the world. Terrorism and acts of violence are also a type of trancedence. 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]

Global Warming and Epidemic Benjamin Buttons Syndrome

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]

References

[1] Weaver TD, Hublin JJ. Neandertal Birth Canal Shape and the Evolution of Human Childbirth. *Proc. Natl. Acad. Sci. USA* 2009; 106: 8151-8156.

[2] Kurup RA, Kurup PA. Endosymbiotic Actinidic Archaeal Mediated Warburg Phenotype Mediates Human Disease State. *Advances in Natural Science* 2012; 5(1): 81-84.

[3] Morgan E. The Neanderthal theory of autism, Asperger and ADHD; 2007, www.rdos.net/eng/asperger.htm.

[4] Graves P. New Models and Metaphors for the Neanderthal Debate. *Current Anthropology* 1991; 32(5): 513-541.

[5] Sawyer GJ, Maley B. Neanderthal Reconstructed. *The Anatomical Record Part B: The New Anatomist* 2005; 283B(1): 23-31.

[6] Bastir M, O'Higgins P, Rosas A. Facial Ontogeny in Neanderthals and Modern Humans. *Proc. Biol. Sci.* 2007; 274: 1125-1132.

[7] Neubauer S, Gunz P, Hublin JJ. Endocranial Shape Changes during Growth in Chimpanzees and Humans: A Morphometric Analysis of Unique and Shared Aspects. *J. Hum. Evol.* 2010; 59: 555-566.

[8] Courchesne E, Pierce K. Brain Overgrowth in Autism during a Critical Time in Development: Implications for Frontal Pyramidal Neuron and Interneuron Development and Connectivity. *Int. J. Dev. Neurosci.* 2005; 23: 153-170.

[9] Green RE, Krause J, Briggs AW, Maricic T, Stenzel U, Kircher M, Patterson N, Li H, Zhai W, *et al*. A Draft Sequence of the Neandertal Genome. *Science* 2010; 328: 710-722.

[10] Mithen SJ. *The Singing Neanderthals: The Origins of Music, Language, Mind and Body*; 2005, ISBN 0-297-64317-7.

[11] Bruner E, Manzi G, Arsuaga JL. Encephalization and Allometric Trajectories in the Genus Homo: Evidence from the Neandertal and Modern Lineages. *Proc. Natl. Acad. Sci. USA* 2003; 100: 15335-15340.

[12] Gooch S. *The Dream Culture of the Neanderthals: Guardians of the Ancient Wisdom.* Inner Traditions, Wildwood House, London; 2006.

[13] Gooch S. *The Neanderthal Legacy: Reawakening Our Genetic and Cultural Origins.* Inner Traditions, Wildwood House, London; 2008.

[14] Kurtén B. *Den Svarta Tigern*, ALBA Publishing, Stockholm, Sweden; 1978.

[15] Spikins P. Autism, the Integrations of 'Difference' and the Origins of Modern Human Behaviour. *Cambridge Archaeological Journal* 2009; 19(2): 179-201.

[16] Eswaran V, Harpending H, Rogers AR. Genomics Refutes an Exclusively African Origin of Humans. *Journal of Human Evolution* 2005; 49(1): 1-18.

[17] Ramachandran V. S. The Reith lectures, BBC London. 2012.

Climate Change and Human Evolution Series

- Climate Change and Socio-Cultural and Political Evolution
- Climate Change and Language Evolution
- Climate Change and Global Anarchy
- Climate Change and Sexual Culture
- Climate Change and Rise of Pagan Religion
- Climate Change and Globalization
- Climate Change and Gender Politics
- Climate Change and Evolution of a New Human Species
- Climate Change and Global Catastrophes
- Climate Change and Brain Evolution
- Climate Change and Evolution of New Prokaryotic, Eukaryotic and Viral Species
- Climate Change and Metabolic Evolution – Metabolic Engineering
- Climate Change and Cell Organelle Evolution
- Climate Change and Genomic Evolution
- Climate Change and Immune Evolution

ISBN:978-1-946898-27-2

Price: US $ 70

To order the series of books, please contact:
Open Science Publishers
Web: www.openscienceonline.com
Email: book@openscienceonline.com