

# **Chapter 1**

The Human Endosymbiotic Archaeal RNA  
Viroid Quasi-Species Consortia, New Viruses  
and Socio-Economic-Political History

The viruses spread genes across bacteria humans and other cells. According to Lynn Margulis we are our viruses. Viruses merge with the cellular genome and reemerge from them. They create successful genetic patterns that underlie living things. RNA virus can exist as quasi-species consortia which can create new RNA viruses and codes by symbiosis. The archaeal RNA quasi-species consortia underlie human and species identity. The archaeal digoxin can edit the RNA producing new codes to suit environmental conditions for the benefit of the quasi-species consortia.

The bacteriophages are examples of this concept. The bacteria trade genes frantically by three processes - transformation via uptake of DNA, sexual conjugation and bacteriophage induced transduction. The viruses are mobile genetic elements and can carry genes from one person to another. The RNA viruses are dipolar and in the setting of digoxin induced membrane sodium potassium ATPase inhibition can create a pumped phonon system mediated quantal perception. The archaeal RNA viroid quasi-species consortia can thus mediate quantal perception and function as a symbiotic colony and communicate with the outside world. To suit survival in changing environmental conditions new RNA viroids can be added to the quasi-species consortia by archaeal DNA induced editing. The viral cycles can be lytic cycles or lysogenic cycles. Viral infections convert the human body to a viral organ.

Many filo viruses like Marburg virus and ebola virus are integral part of the human genome. The human genome also contains retroviruses and borna viruses as integral parts. Similar integration non-retroviruses have been described for RSV, LCMV, VSM virus. The integration is done by HERV reverse transcriptase and integrase. The viruses can cross the inter-species barrier. The algal viruses *acanthocystis tortacea chlorella* can infect mamallian cells. It has been detected in human throat swabs and the algal virus can replicate in human cells. Human

neuronal cells when infected by the algal virus produces changes in memory, visuo-spatial process and attention affecting cognitive function.

Viruses are mechanisms of gene transfer. This is explained by viruses given to the caterpillar by the wasp. The barco virus protects the caterpillar against particular viruses. The viruses infecting humans contains sequences with human DNA and bacterial DNA. The viruses thus function as mechanism for interhuman and interspecies gene transfer. Just as the viruses can infect cells the bacteria can conjugate with human cells. Bacterial conjugation and DNA transfer with human cells have been described. Photosynthetic genes have been sequenced in phage virus. Bacteria can steal genes and develop resistance. The gene for alpha 2 macroglobulin is seen in certain bacteria and provides a mechanism for bacterial resistance.

The human gut is a symbiotic system between bacteria, viruses and phages. Gut bacterial phages codes for genes of amino acid synthesis and carbohydrate metabolism. Ecosystem of human cells gut bacteria, viruses and phages is a continuous gene transfer mechanism and can interact with other ecosystems. The pathogens can contribute genes to the host. The archaeal RNA viroids can contribute genes to the host by conversion to DNA using HERV reverse transcriptase. Unrelated RNA and DNA virus can re-combine. The archaeal RNA viroids and its corresponding DNA can re-combine with unrelated RNA and DNA viruses. The bacteriophages can shuttle genes between different ecosystems. The archaeal RNA viroids served the same purpose. There is transkingdom crosstalk of small RNA molecules. Transkingdom sRNA silencing of the human RNA by archaeal RNA viroids can modulate the human system. The crosskingdom RNA silencing is important in crosskingdom communication in ecosystem.

The viral epidemics have thus contributed to human evolution. Virus and bacterial infection homogenized human population by gene transfer. The archaeal and its RNA viroids form the lynchpin of the mechanism of gene transfer. This leads onto globalisation of speech, thought and culture by viral epidemics and related gene transfer. Thus viral epidemics help in globalization of human culture. Human viral epidemics are necessary prerequisite for the evolution of human culture. The viral epidemics homogenize human population forming groups of caste, religion, nationalities and culture. The archaeal RNA viroidal quasi-species consortia underlie this mechanism of evolution. Thus viral diseases contribute to culture, behavior, diet, eating habits and sexuality. Thus virus mediated gene transfer is important human sociological mechanism. The archaeal RNA viroidal quasi-species consortia and its recombination with unrelated RNA and DNA viruses and its integration into the human genome by HERV reverse transcriptase forms the basis of this phenomena. Retroviral infections have contributed to the genesis of schizophrenia, cortical function and evolution of consciousness. Borna virus infections also contribute to schizophrenia. Viral epidemics thus contribute to population identity and differences. This can also lead onto generation of new viruses.

Diet can modulate archaeal RNA viroidal function. The high fibre diet will suppress archaeal growth and RNA viroidal growth. A low fibre diet will increase archaeal growth and RNA viroidal growth. Thus the RNA viroidal quasi-species consortia can be modulated by diet. Viruses are beneficial agents and only 1 percentage of the viruses are pathogenic. Most of the viruses co-exist as commensals. The bacteria and fungal kingdoms contain bacteriophages and fungal phages. They can recombine with archaeal RNA viroids and their corresponding DNA producing new RNA and DNA viruses which can get integrated into the genome as well as get secreted into the environment. This forms a common gene pool.

The archaea are extremophiles and can exist in the intergalactic space and meteoroidal impacts can transfer the archaea in the intergalactic space to earth. The archaeal RNA viroids thus supply a continuous source of new genetic codes to earth. The bacterial infections especially those due to streptococcus and its phages can produce epidemic OCD, echolalia and ecopraxia contributing to a disciplined society and the evolution of the hereditary system of kingship. This can be due to the streptococcus induced epidemic OCD frontal lobe syndrome. The bacteriophages from the streptococcus could have recombined with the archaeal RNA viroids and got integrated into the human genome. The fungal infections could have contributed to the next phase of evolution. Infections with *Claviceps purpurea* can transfer LSD genes and dopamine genes to humans producing the dopaminergic epoch in society. The fungal phages would have recombined with archaeal RNA viroids and got integrated into the human genome. This could have contributed to ideas of equality, fraternity, liberty and socialism which are all products of the French revolution. During this period of time there was an epidemic of fungal infection in Rye in Europe. The next phase of global epidemics occurred with H1N5 infection or the Spanish flu epidemic. This resulted in a locked-in state and a frozen society leading onto the rise of dictatorship, fascism, the Nazis and the Communists. The next stage in which we live can be called the age of anarchy with its globalization, terrorism, rogue capitalism, sexual anarchy and religious fundamentalism. This corresponds with the recurrent epidemics of RNA viral infections - H1N1, retroviral, SARS, ebola, dengue and hemorrhagic fever. The genomic integration of these RNA viruses, fungal phages, bacterial phages would have changed the human genome at this different point in history. Thus virus induced gene transfer can modulate the brain, culture, sociology and behavior.

## References

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