

## Biocatalysis and primitive immune system

The vision about exclusion zone like regions as primordial life forms and facts about water memory and homeopathy lead to a vision about how primitive immune system developed and led to genetic code.

1. Dark genetic code, dark DNA, RNA, amino-acids and even tRNA are realized in terms of dark proton states.
  2. Primitive recognition of presence of invader molecule by the cyclotron frequency spectrum of its magnetic body was fundamental step. The magnetic body of primordial life form learned to mimic that of invader molecule.
  3. Later dark DNA allowed symbolic representation for the 4-D folding patterns of invader molecule.
  4. The elimination of invader was possible by phase transition reducing the  $h_{eff}$  for connecting flux tubes followed by attachment. At this stage ordinary proteins attached to dark proteins would have emerged and made elimination reaction possible.
  5. Dark DNA would have developed to provide symbolic representation for the 2-braiding. Concrete representation would not have been needed anymore and be constructed by transcription to dark proteins.
1. What could be the fundamental mechanisms of bio-catalysis when magnetic body is included as a higher control level?
  2. Replication of magnetic body is analogous to what happens in 3-vertex of Feynman diagram. This occurs in several scales. This would make possible dark DNA (dDNA) replication and copying of dDNA to dDNA+dRNA as well as copying of dRNA to dRNA+dark protein.
  3. Reconnection of U-shaped flux tubes building a bridge between primordial life form and invader molecule defines fundamental recognition mechanism allowing to become aware of the other molecule. This is something new.
  4. Resonant interaction at cyclotron frequencies is made possible by the flux tube bridge. Dark photons at resonant interaction frequencies but with bio-photon energies induce also transitions of bio-molecules. Resonance interaction is self-amplifying. All molecules with same cyclotron frequency or chemical excitation energy are excited. Means positive feedback in bio-chemical control giving rise to the analog of cancer like exponential growth when combined with replication of magnetic bodies. This kind of growth might take place during early periods of cell replication.
  5. The attaching of dark proteins and their ordinary counterparts to the invader molecule after  $h_{eff}$  reducing phase transition leading to shortening of the connecting flux tube. Gives rise to negative feedback: some protein generated by same cyclotron frequency as DNA coding it inhibits the replication of DNA. The outcome is homeostasis.

Remote gene replication might be one application.

1. Assume that the portion of DNA promoting DNA replication is activated by dark radiation at some frequency and that the promoter region emits radiation with same frequency. This activates further promoter regions -also in other cell nuclei. The replication process is amplified exponentially.
2. This might occur during cell division which might involve irradiation by dark analog of white noise exciting all promoter regions.
3. Remote replication becomes possible if the dark radiation exciting promoter region can leak to other cells or even other organisms. Large  $h_{eff}$  might make this possible.
4. Also remote transcription is possible by the same mechanism. Actually remote variants of very many basic processes seem to be possible.
5. The observations of Peter Gariaev about effects of last light on genes support this view as well as the findings of group of HIV Nobelist Montagnier.