

DDNA-DNA, DDNA-DDNA, DDNA-exotic DNA pairings

!Basic idea: **DDNA-DNA pairing**. DDNA is the fundamental DNA and ordinary DNA emerged later as a kind of mimicry: MB acting as master controls the dynamics of BB acting as slave.

?Basic problem: DDNA codons **do not allow decomposition into letters** like DNA codons. It seems that replication and transcription must occur codon by codon rather than letter by letter. For translation of mRNA this is indeed the case: tRNA are the basic objects. Could this be true in modified sense also for replication and transcription?!

0.1 DNA and DDNA codons look like?

At least 3 new kind of codons are predicted (<http://tinyurl.com/yygqen5g>).

1. Also ordinary DNA codons involve flux tubes. Valence bonds between nucleotides of DNA strand and hydrogen bonds in double strand involve flux tubes or pairs of them.
2. **DDNA codons** are paired with ordinary DNA codons of DNA strand. DDNA codons would correspond to dark proton triplets at flux loops being analogous to tritium and ^3He . The model for remote replication requires that DDNA codon loops are connected to long closed **dark gene** flux loop by U-shaped appendages - attached to dark gene.
If DDNA and DNA codons are paired with ordinary DNA by **energy resonance** there is no need for flux tube contacts between the triplets.
3. Dark codons as **dark photon 3-chords** are predicted. Couple to DDNA by energy-frequency resonance and to DNA by energy-resonance.
4. **exotic DNA codons** are required and DNA nucleotides in DNA environment would form then and pair with DDNA codons.

0.2 What various pairings look like?

3 kinds of **pairings**.

1. **DDNA-DNA** pairing in DNA strand. Different values of h_{eff} do not allow flux tube contacts. Energy resonance only.
2. **DDNA-DDNA** pairing in DNA double strand is not necessary in **geometric sense** because hydrogen bonds pair DNA codons and energy resonance pairs DDNA strands to DNA codons. DDNA codons could be located along dark gene flux tube and attached to it.
3. **DDNA-exotic DNA** pairing in environment. Nucleotides of exotic DNA are attached to closed DDNA codon flux tubes. h_{eff} is larger than for DDNA codon in double strand. There are no valence bonds. The ordering of letters forced by flux tube and energy resonance. One obtains correct codon if the orientation of the flux tube matters (ABC and BCA correspond to different energies in energy resonance). Strong **parity breaking** implies it.

This solves the basic problem. Codon is secretly present. No valence bonds. Small string tension. Nucleotides effectively free.