A model for remote replication of DNA is proposed. The motivating experimental discoveries are phantom DNA, the evidence for remote gene activation by scattered laser light from similar genome, and the recent findings of Montagnier's and Gariaev's groups suggesting remote DNA replication.

Phantom DNA is identified as dark nucleon sequences predicted by quantum TGD with dark nucleons defining naturally the analogs of DNA, RNA, tRNA, and amino-acids and realization of vertebrate genetic code. The notion of magnetic body defining a hierarchy of flux quanta realize as flux tubes connecting DNA nucleotides contained inside flux tubes connecting DNA codons and a condensed at flux sheets connecting DNA strands is an essential element of the model. Dark photons with large value of Planck constant coming as integer multiple of ordinary Planck constant propagate along flux quanta connecting biomolecules: this realizes the idea about wave DNA. Biomolecules act as quantum antennas and those with common antenna frequencies interact resonantly.

Biomolecules interacting strongly - in particular DNA nucleotides- would be characterized by same frequency. An additional coding is needed to distinguish between nucleotides: in the model for DNA as topological quantum computer quarks (u,d) and their antiquarks would code for the nucleotides A,T,C, and G would take care of this. The proposed role of quarks in biophysics of course makes sense only if one accepts the new physics predicted by quantum TGD. DNA codons (nucleotide triplets) would be coded by different frequencies which correspond to different values of Planck constant for photons with same photon energy propagating along corresponding flux tubes. This allows to interpret the previously proposed TGD based realization of so called divisor code proposed by Khrennikov and Nilsson in terms of quantum antenna mechanism. Years later from this proposal

a much more detailed mode emerged leading to a formula for $h_{eff}
=n\times h$
making h_{eff} proportional to the mass (number) of the charged
particle involved.
This predicts universal energy spectrum for dark photons in the
range of visible and
UV photons. Dark photons can transform to ordinary ones in energy
conserving
manner and the outcome is identified as biophotons.

In this framework the remote replication of DNA could be understood.
DNA
nucleotides interact resonantly with DNA strand and attach to the
ends of
the flux tubes emerging from DNA strand and organized on 2-D flux
sheets.
In Montagnier's experiment the interaction between test tubes A and
B
would be mediated by dark photons between DNA and dark nucleon
sequences
and amplify the dark photon beam, which in turn would induce
remote
replication. In the experiment of Gariaev scattered laser light
would help
to achieve the same purpose. Dark nucleon sequences would be
generated in
Montagnier's experiment by the homeopathic treatment of the test
tube B.

Dark nucleon sequences could characterize the magnetic body of any
polar
molecule in water and give it a \blockquote{name} written in terms
of genetic codons
so that genetic code would be much more general than usually
thought. The
dark nucleon sequence would be most naturally assigned with the
hydrogen
bonds between the molecule and the surrounding ordered water being
perhaps
generated when this layer of ordered water melts as the molecule
becomes
biologically active. Water memory and the basic mechanism of
homeopathy
would be due to the \blockquote{dropping} of the magnetic bodies of
polar molecules
as the water is treated homeopathically and the dark nucleon
sequences
could define an independent life form evolving during the sequence
of
repeated dilutions and mechanical agitations taking the role
environmental
catastrophes as driving force of evolution. The association of
DNA,

RNA and amino-acid sequences associated with the corresponding dark nucleon sequences would be automatic since also also they are polar molecules surrounded by ordered water layers.

The transcription of the dark nucleon sequences associated the with the polar invader molecule to ordinary DNA sequences in turn coding of proteins attaching to the invader molecules by the quantum antenna mechanism could define the basic mechanism for functioning and evolution of the immune system.