

DNA - Physical Chemistry Interactions

Prior to the formation of an explicit and replicable algorithm for cellular mechanisms that encompasses key facets of quantum mechanics (aka quantum biology), DNA applications have been rudderless and still pursuing A - C - T - G sequencing despite the fact that a missing 5th nucleobase was discovered through research at Weill Cornell Medicine in 2011.

Applying Quantum Biology

In addition to missing the 5th nucleobase, over the past decade, it has become apparent that the roles of elements and minerals relative to DNA signaling were also omitted.¹

As the algorithm for quantum biology was refined starting in 2005 and finalized for application in 2018, the process encompassed the dynamics of physical chemistry and inorganic cellular signaling; epigenetics.

The three variations of interactions between elements are positive - negative and translational. Various other designations exist, agonistic - antagonistic - translational.

The latter forms are “modulatory” (transitional) and they can alter either the positive or negative elements; examples in epigenetic cellular signaling include but are not limited to chloride and phosphorus.

The physical mechanisms in quantum mechanics require numerous translational factors to enable activities; i.e. positive - negative - ground with the latter phase providing enzyme activities within genes.

The following is provided for discussion purposes relative to the interactions between elements and epigenetic activity.

¹ [https://www.mcfip.net/upload/Crystallography%20Overview%20x%20\(1\).pdf](https://www.mcfip.net/upload/Crystallography%20Overview%20x%20(1).pdf)

TNF Epigenetic Constituents (Cell Alignment)

For Discussion Purposes

TNF-Alpha (Calnexin) Density

Calcium - threonine - magnesium (BRCA1)

Calcium - serine - magnesium (BRCA2)

Calcium - cysteine - magnesium (BRCA3)

For Discussion:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3436948/>

TNF-Beta (Calmodulin) Motility

Calcium - phenylalanine - magnesium (HRas)

Calcium - tyrosine - magnesium (KRas)

Calcium - tryptophan - magnesium (NRas)

TNF-Gamma (Calcineurin)

Calcium - serine - zinc

Calcium - cysteine - zinc

Calcium - threonine - zinc

The following are examples of bioidentical "enzymes" that have evolved with various designations; e.g. AKT, mTOR, PTEN, NF-kB, and MYC.

As cellular interfaces evolved over eons, the number of translation elements was limited. In their place, gasotransmitters acting alone or in a trefoil (3), evolved to provide "translational" activities. The multi-configurations of gasotransmitters are known as superoxides (SOD1 and 3 in conjunctions with copper and zinc as well as SOD2 in conjunction with iron and manganese).

Calcineurin and all of its designations can be discussed with the appropriate researchers.