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Short Communication

Inception of Biological Nucleic Acids and the First Genetic System (The Progene Speculation)

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ABSTRACT

Aim: The most acknowledged idea of the cause of nucleic acids and life is the RNA world speculation that is upheld by numerous researchers. There are exceptionally solid protests against this theory (issues of determination of mixtures in prebiotic conditions, processivity of polynucleotide amalgamation without protein polymerases, emerging of the hereditary code what's more, interpretation). To beat these impediments and to clarify how the primary organic nucleic corrosive (the first quality) emerges at the same time with a particular protein (a processive polymerase) framing a bimolecular hereditary framework, I have proposed an elective speculation (the progene theory). As per this theory, the bimolecular hereditary framework arises not from mononucleotides and monoamino acids, yet from progenes, in particular, trinucleotides aminoacylated on 3'- end by a non-irregular amino corrosive (NpNpNp~pX~Aa, where N - deoxyribo-or ribonucleoside, p – phosphate, X - a bifunctional specialist, for instance ribose, Aa - amino corrosive, ~ macroerge bond). The progenes are utilized as the solitary substrates for interconnected blend of a polynucleotide and a polypeptide. The development of the framework "polynucleotide – polypeptide" is constrained by the enzymatic properties of the developing polypeptide, and the bimolecular hereditary framework arises as an amazingly uncommon occasion. The progene framing instrument (NpNp + Np~pX~Aa) makes it conceivable to clarify the rise of the prebiotic physicochemical gathering hereditary code, too as the choice of natural mixtures for the future hereditary framework from the racemic heterogeneous climate. The bimolecular hereditary framework is duplicated on a progene premise through replication-record interpretation (the first atomic hereditary cycle) that is like its advanced partners. Nothing is needed for the rise and multiplication of the bimolecular hereditary framework with the exception of progenes and conditions for their development, including lipid vesicles and short oligonucleotides (2-6 bases).

Biography:

He received his Ph.D. degree from University of California, Berkeley. He was a professor in POSTECH. He is a distinguished professor in UNIST. His research interests include nanomaterials and nanodevices. partnership merits renewed experimental attention. Physicochemical basis of origin of the genetic code: Stereochemical analysis of interaction of amino acid and nucleotides on the basis of the progene hypothesis.

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