TO MODELS GRAMMARS OF DIALECTS OF CODING GENES

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Three-dimensional constructions – a codonogram and aminograms of dialects [1-3] – were revealed and constructed in papers based on known fundamental biological regularities (for more detail see [4, 5]). They formed the basis for exposing new fundamental regularities of grammars of gene coding. Structural relations between nucleotides and their parameters in the codonogram and between amino acids and their parameters in an aminogram are determined. A table for systematization of amino acids is compiled. A possible variability apparatus caused by redundancy implied in aminograms of dialects is presented. The secondary coding of the codonogram due to redundancy of aminograms has revealed the presence of regular latent coding layers of genes (LCL) in DNA, RNA and mRNA.

The report deals with systematization of the presently known dialects [5]. If a codon is written in the form of $X_1X_2X_3$, in which X_i (i=1-3) correspond to nucleotides T,A,C or G; 20 amino acids are denoted by A_j, j=1,20, and the elementary codon group (ECG) is represented by $X_1X_2(A_1,A_2,A_3,A_4)$ [1-4] with the corresponding amino acids (covers) along the X_3 direction of the aminogram, one may write down all different covers for ECG for all presently known 17 dialects. If the codonogram has 16 or 2^4 ECG, then 2^3 of different ECG with (**S**) coincident for all dialects and 2^5-8 with non-coincident (**N**) covers were found. If **S** and **N** are inscribed in the plane X_1X_2 of the codonogram (ECG), a surprising symmetry is found out (see Table). In the whole Table the number of **S** and **N** is equal to 8. The square I_3 contains only S of ECG for all dialects, the square IV_3 only N, while the squares II_3 and III_3 are mixed and contain 3**N**+1**S** and 3**S**+1**N** of ECG, respectively. At present the table is the constant of dialects or the **law of systematization of dialects**.

$II_3\searrow$	$X_1\downarrow$	$X_1\downarrow$	$X_1\downarrow$	$X_1\downarrow$	$\swarrow I_3$
$X_2\rightarrow$	**N**	**N**	**S**	**S**	$\leftarrow$ G
$X_2\rightarrow$	**N**	**S**	**S**	**S**	$\leftarrow$ C
$X_2\rightarrow$	**N**	**N**	**S**	**S**	$\leftarrow$ A
$X_2\rightarrow$	**N**	**N**	**N**	**S**	$\leftarrow$ T
$IV_3\nearrow$	T $\uparrow$	A $\uparrow$	C $\uparrow$	G $\uparrow$	$\nwarrow III_3$

The work is demonstrates mathematical severity of a structure grammars of an alive nature.

References

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