

genetic code

The set of rules which governs the relationship between the linear order of the *nucleotides* in an *mRNA* molecule and the sequence of the amino acids in the protein which it encodes. The genetic code is a triplet code, nearly universal. It is not overlapping: a *mutation* which alters only a single nucleotide in a gene can change only one amino acid in the encoded protein. It is degenerate: it assigns each of the 20 amino acids to one or more of 61 of the 64 possible nucleotide triplets (cf. *codon*) that can be constructed from four nucleotides. The remaining three triplets are used to signal the termination of a genetic message.

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