

BIOLOGY

LESSON 2: CELLULAR BIOLOGY - (NECESSARY) CELL COMPONENTS + TRANSCRIPTION/TRANSLATION -> TRANSFORMATION

- Bacterial Transformation
 - Bacteria naturally transmits and receives plasmids with DNA from their environment an other bacteria
 - *add bacteria animation*
- Protein Synthesis
 - Protein function is defined by the exact composition, structure and conformation of the proteins, which is encrypted within the DNA region (locus) encoding that protein.
 - Transcription is described in three steps: Initiation, Elongation, Termination
 - Translation (second step)
 - Assembles a protein using the information in the mRNA sequence - on the ribosome
 - Particular mRNA codons correspond to particular amino acids
 - Initiation (start codon - AUG), Elongation, Termination
image
 - Folding of the protein
- Transformation of Cells
 - Transformation broadly refers to the change in phenotype of a cell due to a new genetic material.
 - As regards the cultured cells, transformation involves spontaneous or induced permanent phenotypic alterations as a result of heritable changes in DNA, and consequently gene expression.