

Gene expression and transcription process



BY :
Fatma Mansour

objectives



- **Define gene expression**
- **Define the transcription process**



Gene expression

The central dogma of biology is that information stored in DNA is transferred to RNA molecules during transcription and to proteins during Translation.

Gene expression is a tightly regulated process that allows a cell to respond to the changing in environment.

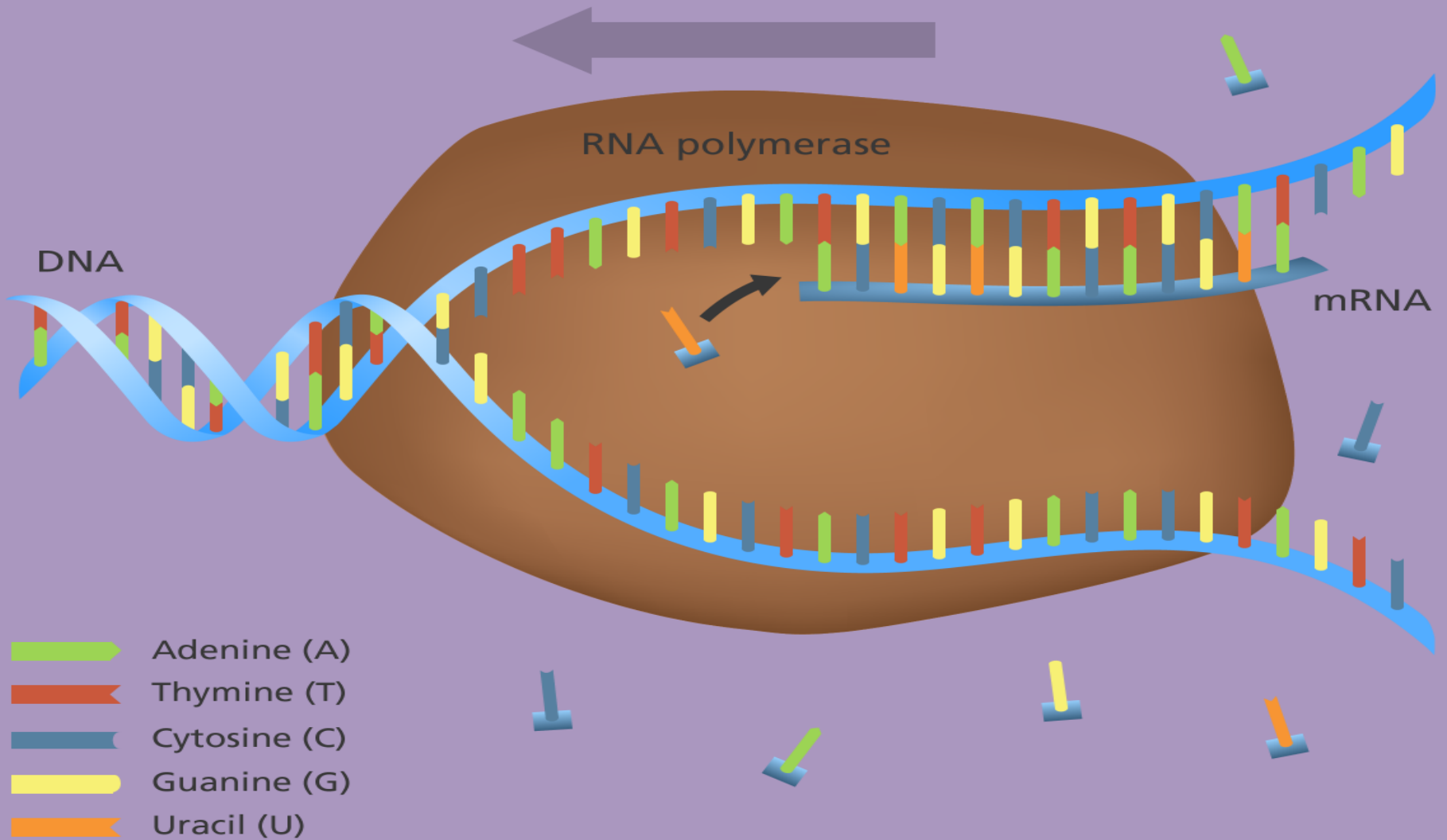
It acts as both an on/off switch to control when proteins are made and also the volume control that increases or decreases the amount of proteins made.

Transcription process



- Transcription is when the DNA in a gene copied to produce an RNA transcript called messenger RNA (mRNA).
- This is carried out by an enzyme called RNA polymerase which uses available bases from the nucleus of the cell to form the mRNA.
- RNA is a chemical similar in structure and properties to DNA, but it only has a single strand of bases and instead of the base Thymine (T), RNA has a base called Uracil (U).

Transcription process





Thank you for listening

Questions??

