



CRC

for

Premium

Quality

Wool

# From Genes to Proteins

Produced for the CRC for Premium Quality Wool undergraduate program by;  
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# Reading Frame

- The genetic code is read in stepwise groups of three nucleotides
- The reading frame is set by the Translation Initiation codon and is read in three's until the Translation Termination or Stop codon

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# Gene structure

- Translation Initiation and Termination Codons
  - define the boundaries of the gene
- Eukaryotes
  - exons - coding regions of the gene
  - introns - non-coding regions that are spliced out at the RNA level



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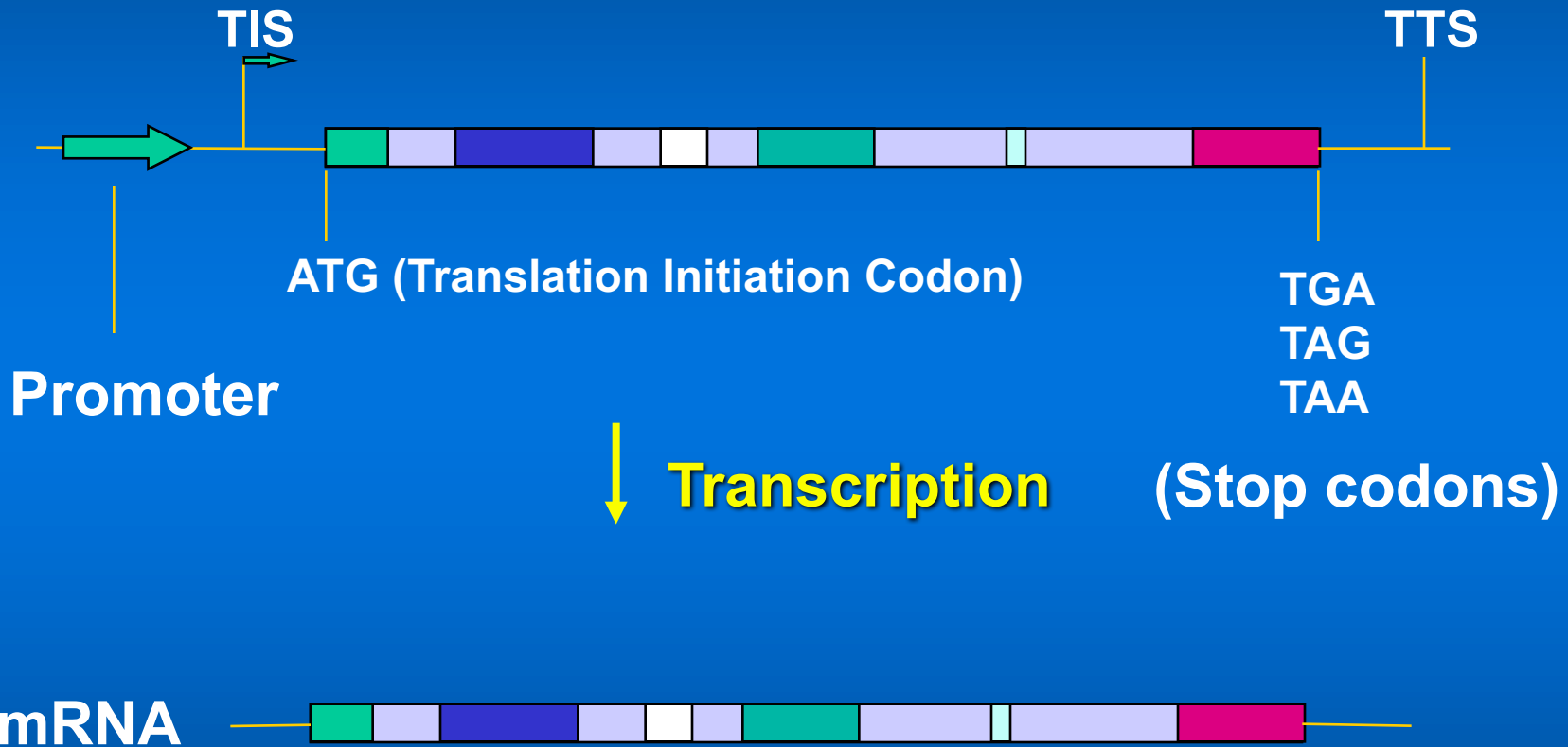
**Promoter**

**INTRONS**

**(Stop codons)**



# Transcription of a gene to pre-mRNA



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# From the gene to the protein

DNA



DNA Polymerase ↓ Transcription

pre-mRNA

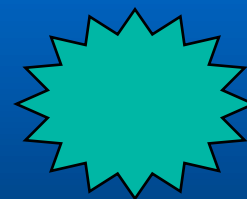


RNA Polymerase ↓ Splicing

mRNA



↓ Translation (Ribosome)



Protein

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