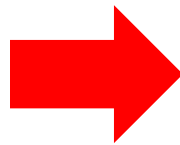
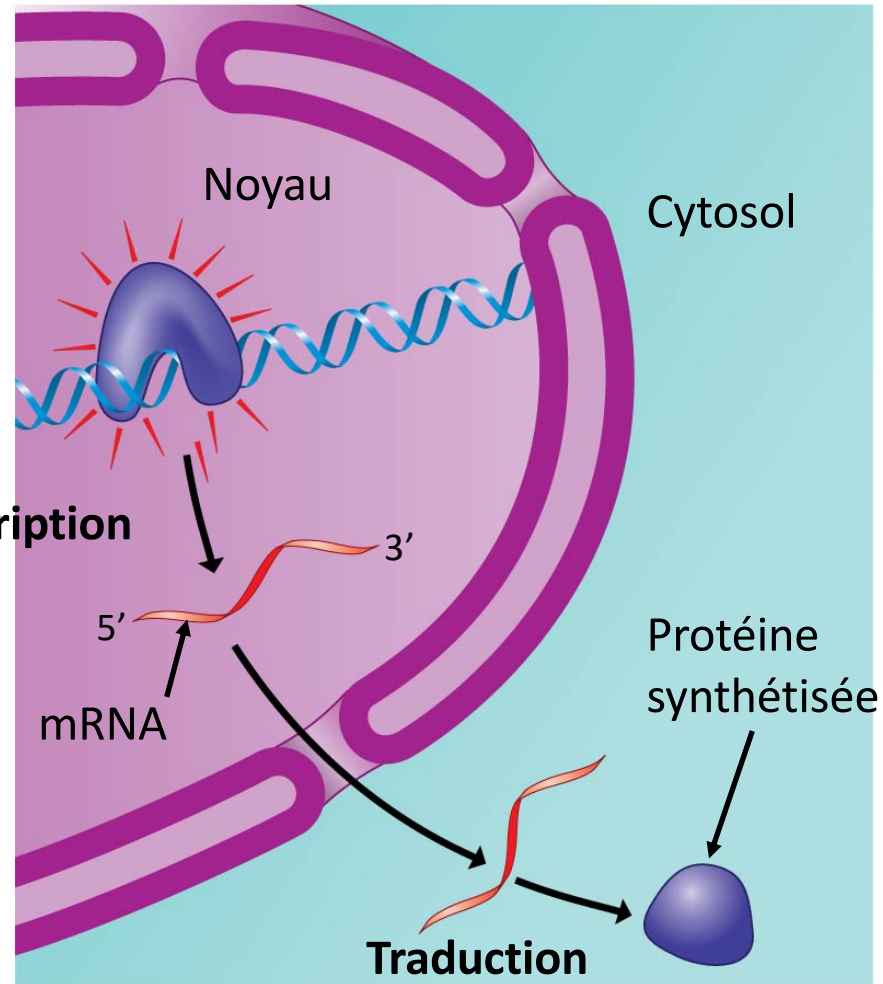


# Expression de l'information génétique

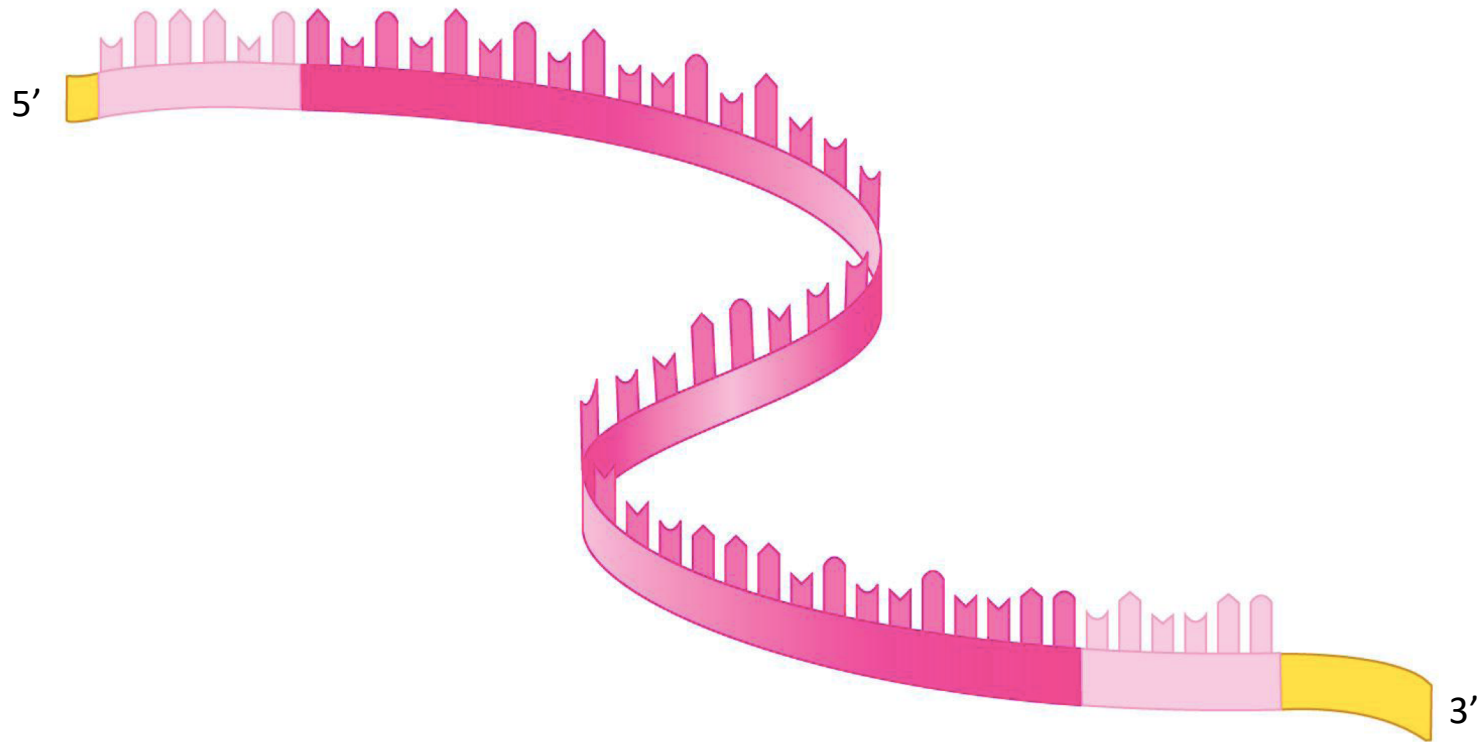
Transcription  
Enzyme : RNAPolymérase



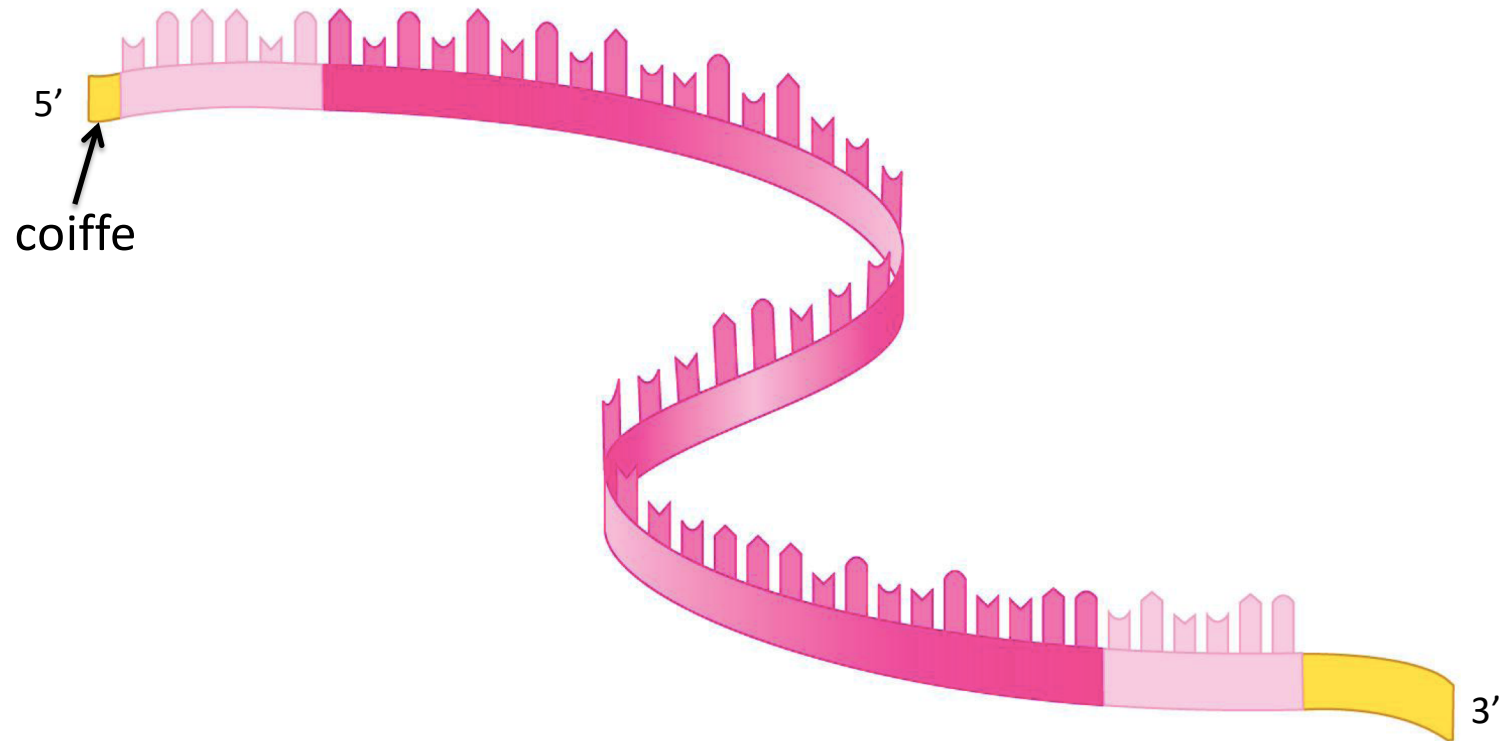
Transcription



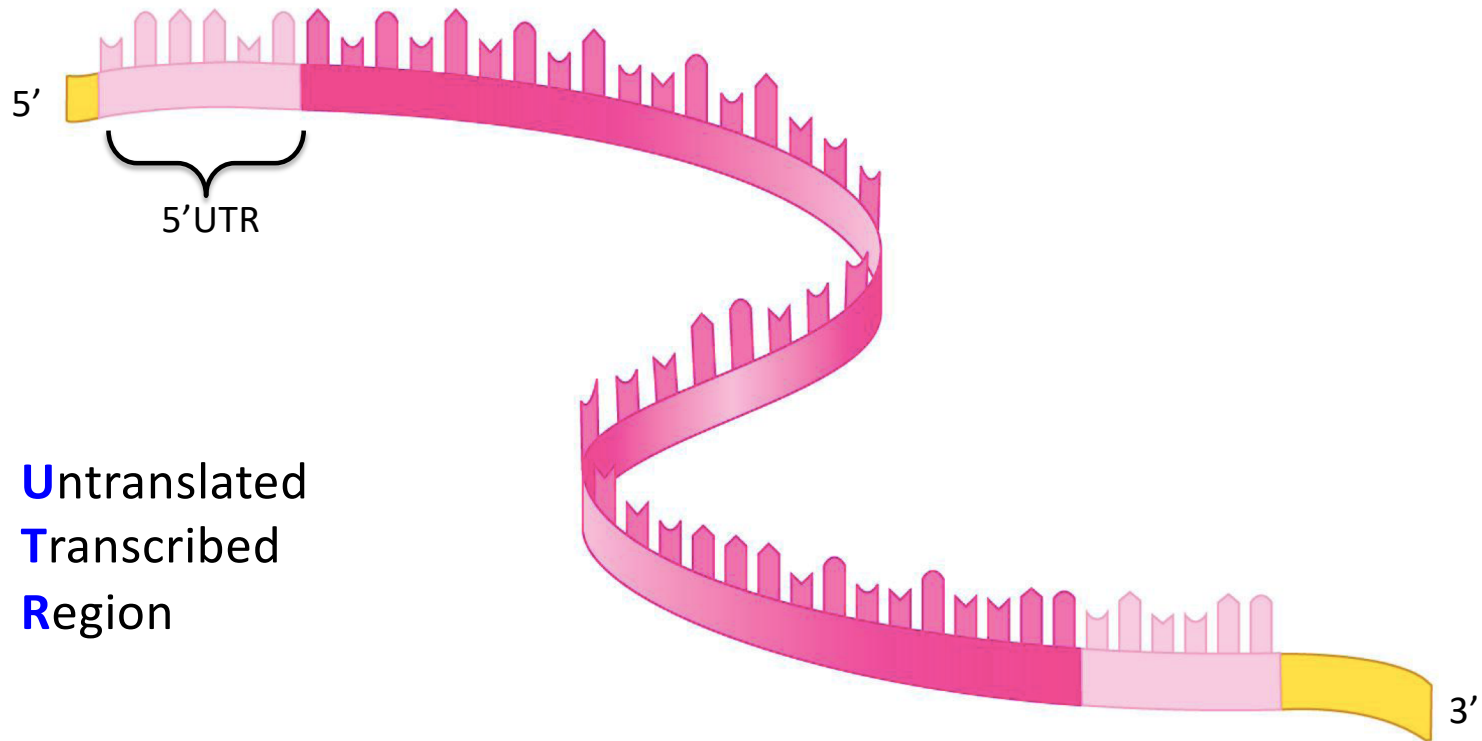
# Anatomie d'un ARN messenger



# Un ARN messenger

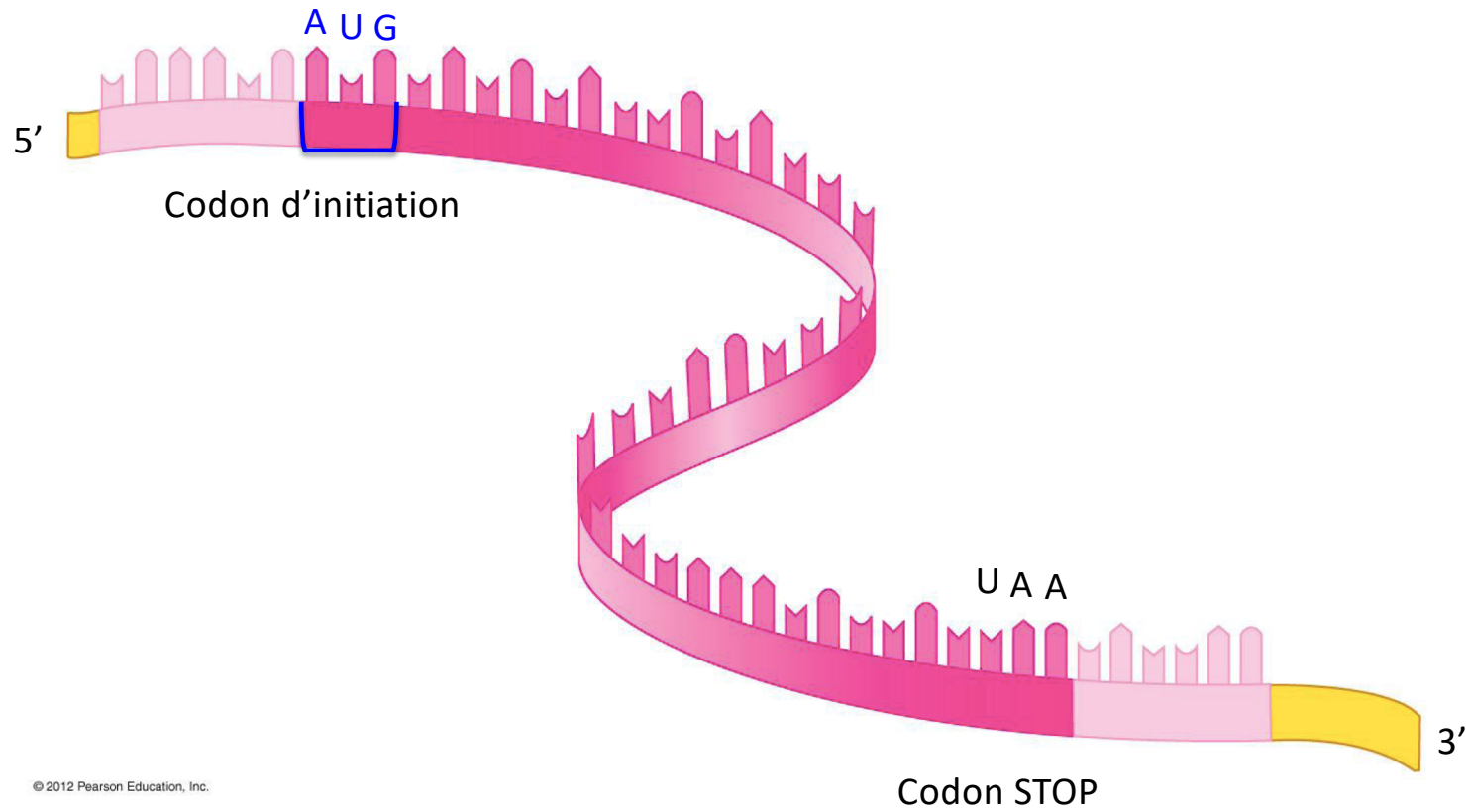


# Un ARN messenger



Untranslated  
Transcribed  
Region

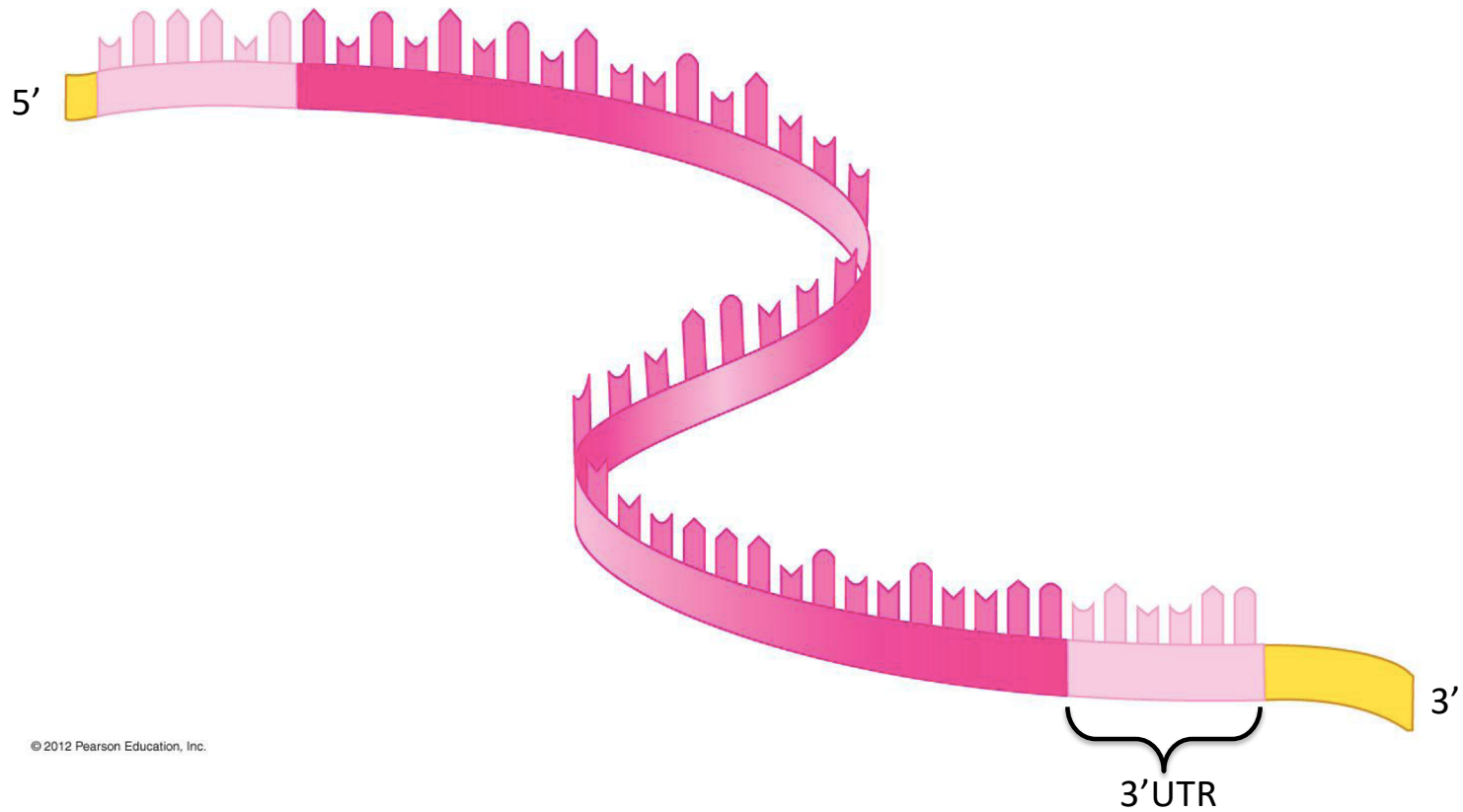
# Un ARN messenger



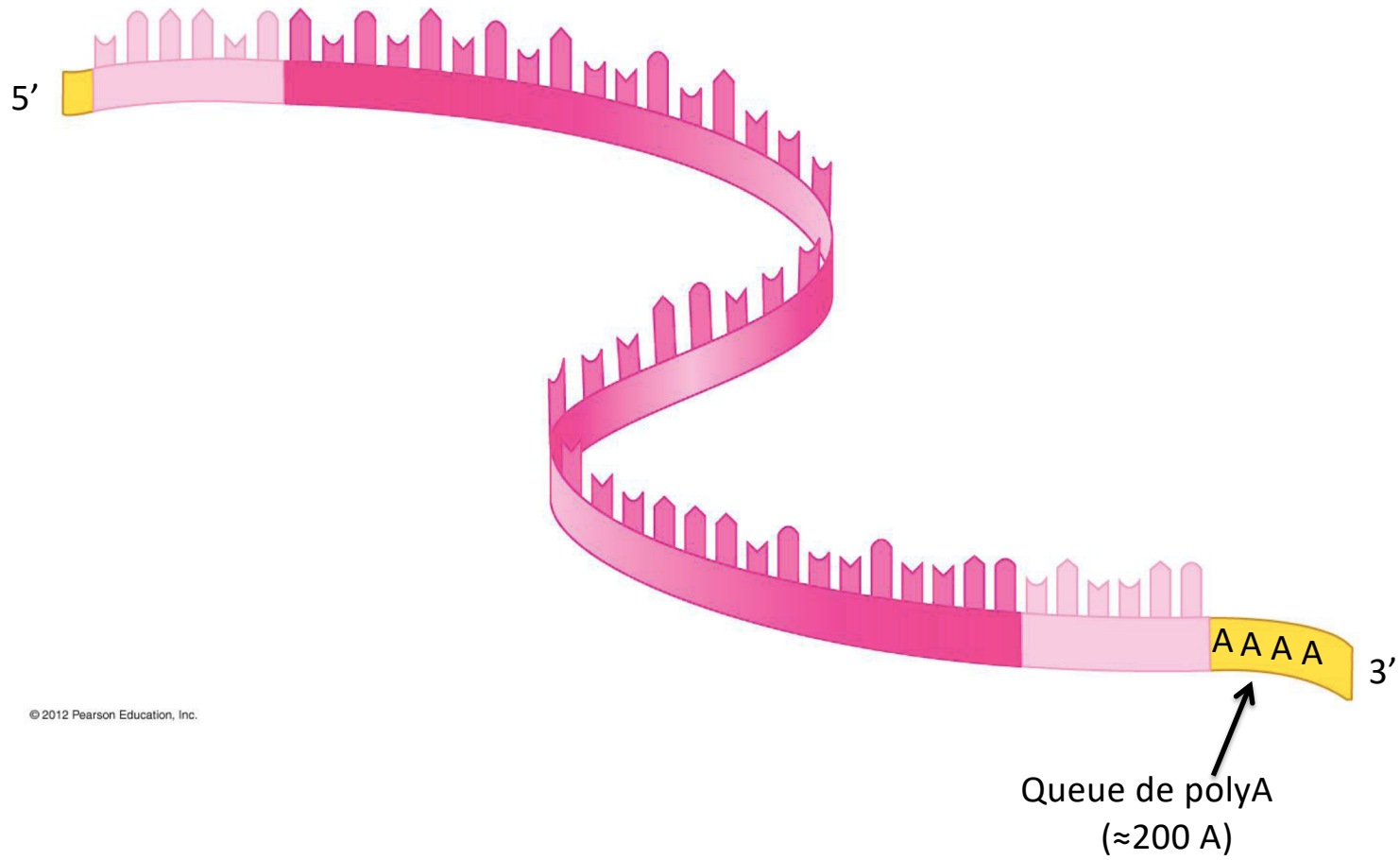
© 2012 Pearson Education, Inc.



# Un ARN messenger

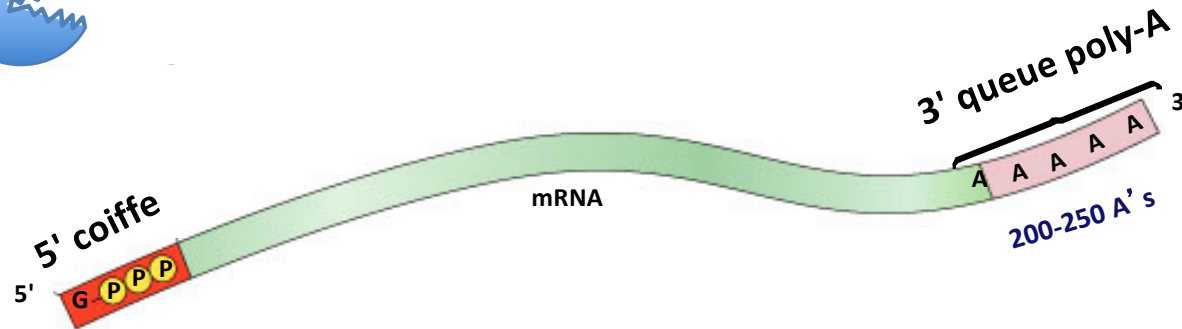
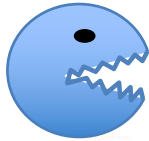


# Un ARN messenger



## Un ARN messenger d'Eucaryote.

RNAse



La coiffe ( $7\text{-mGpppNN}$ ) empêche les RNases d'attaquer l'extrémité 5'.

PABP

PolyA Binding Protein

La présence de PABP empêche les RNases d'attaquer l'extrémité 3'



# Ribonucléases

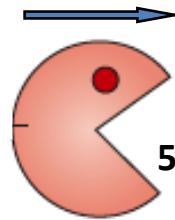


= **endo**nucléase

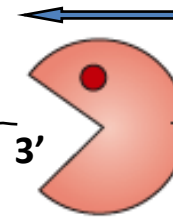


= **exo**nucléase

La modification des  
extrémités 5' et 3'  
protège les messagers.



**5' -3' exo**nucléase

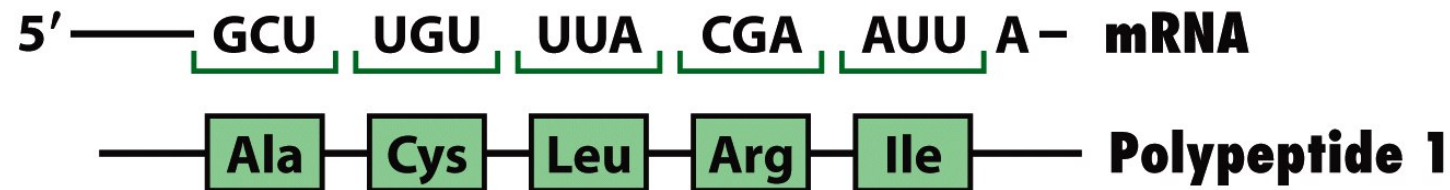


**3' -5' exo**nucléase

Ribonucléase = enzyme qui coupe l'ARN

## Les différents cadres de lectures possibles :

### Frame 1



### Frame 2

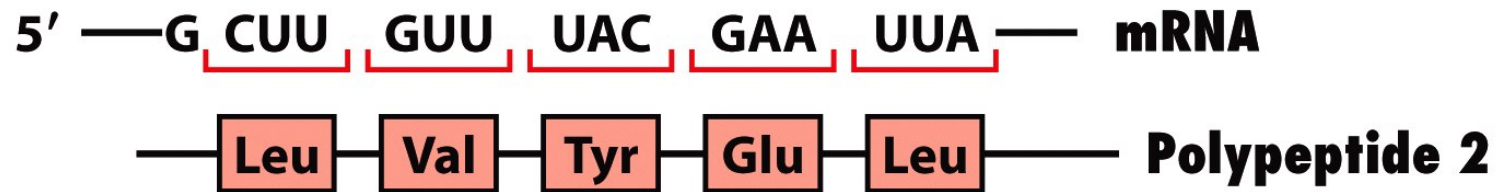
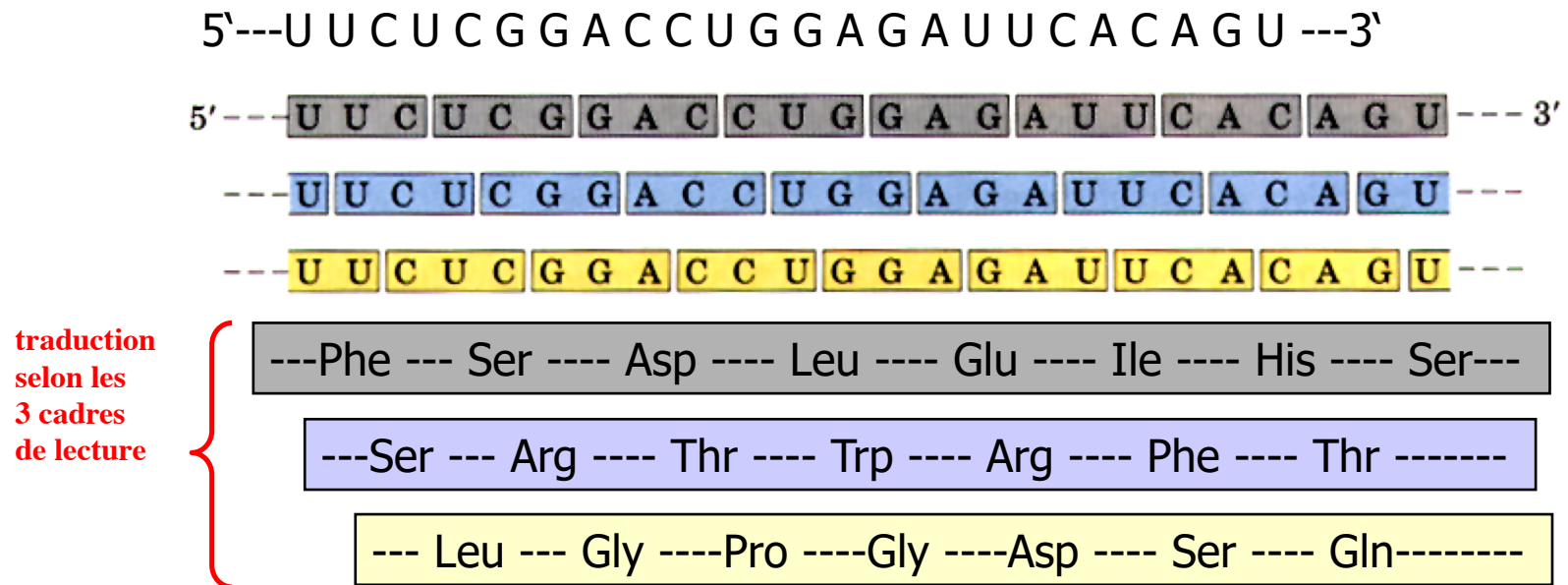
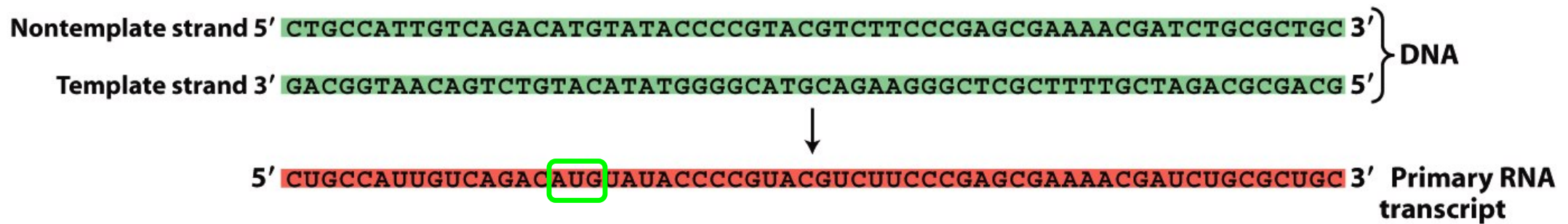
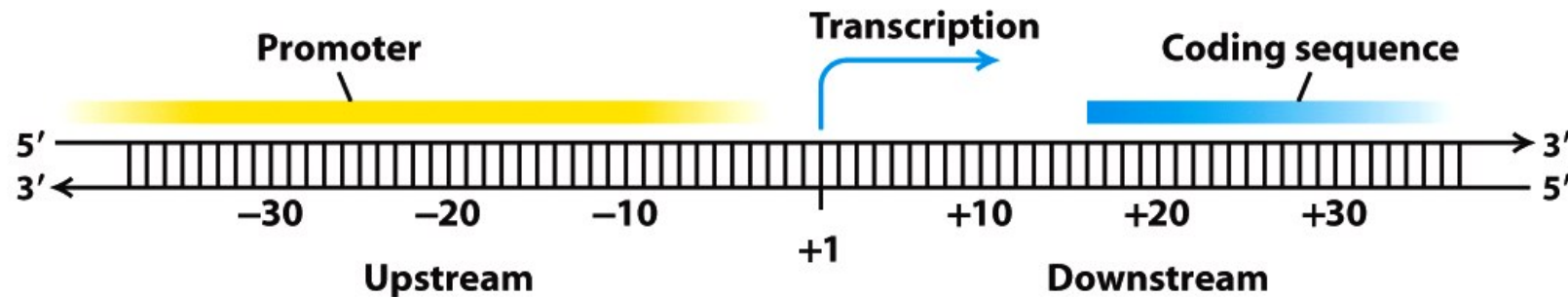


Figure 4-18  
*Molecular Cell Biology, Sixth Edition*  
© 2008 W. H. Freeman and Company

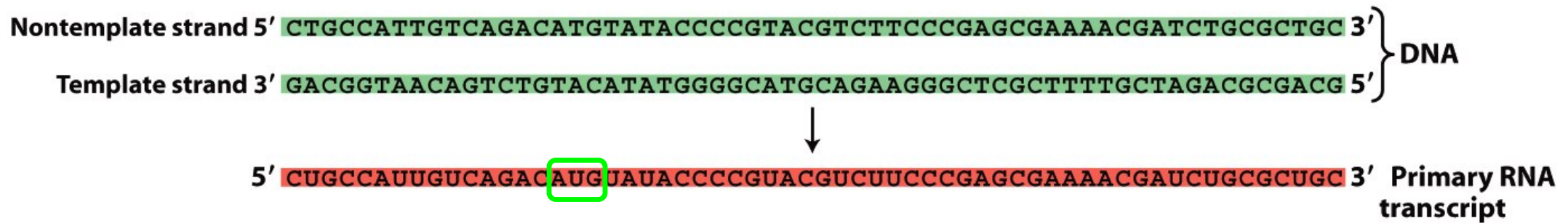
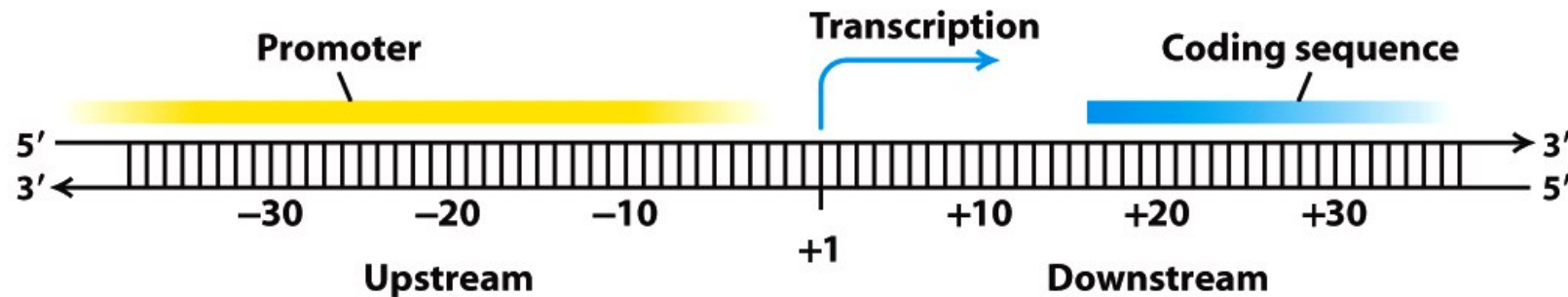
## Les différents cadres de lectures possibles :



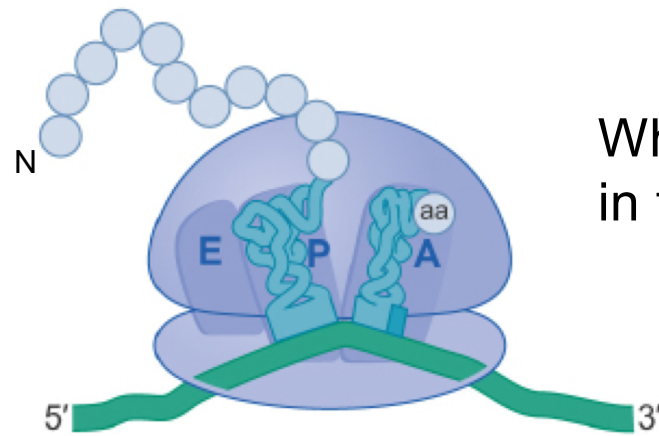
Comment le ribosome détermine le bon cadre de lecture ?



1. Scanner depuis l'extrémité 5' pour identifier le premier AUG



2. Grouper les base en codons (3 par 3)
3. Identifier le premier codon STOP



When a tRNA arrives  
in the A site

Two possible decisions :

