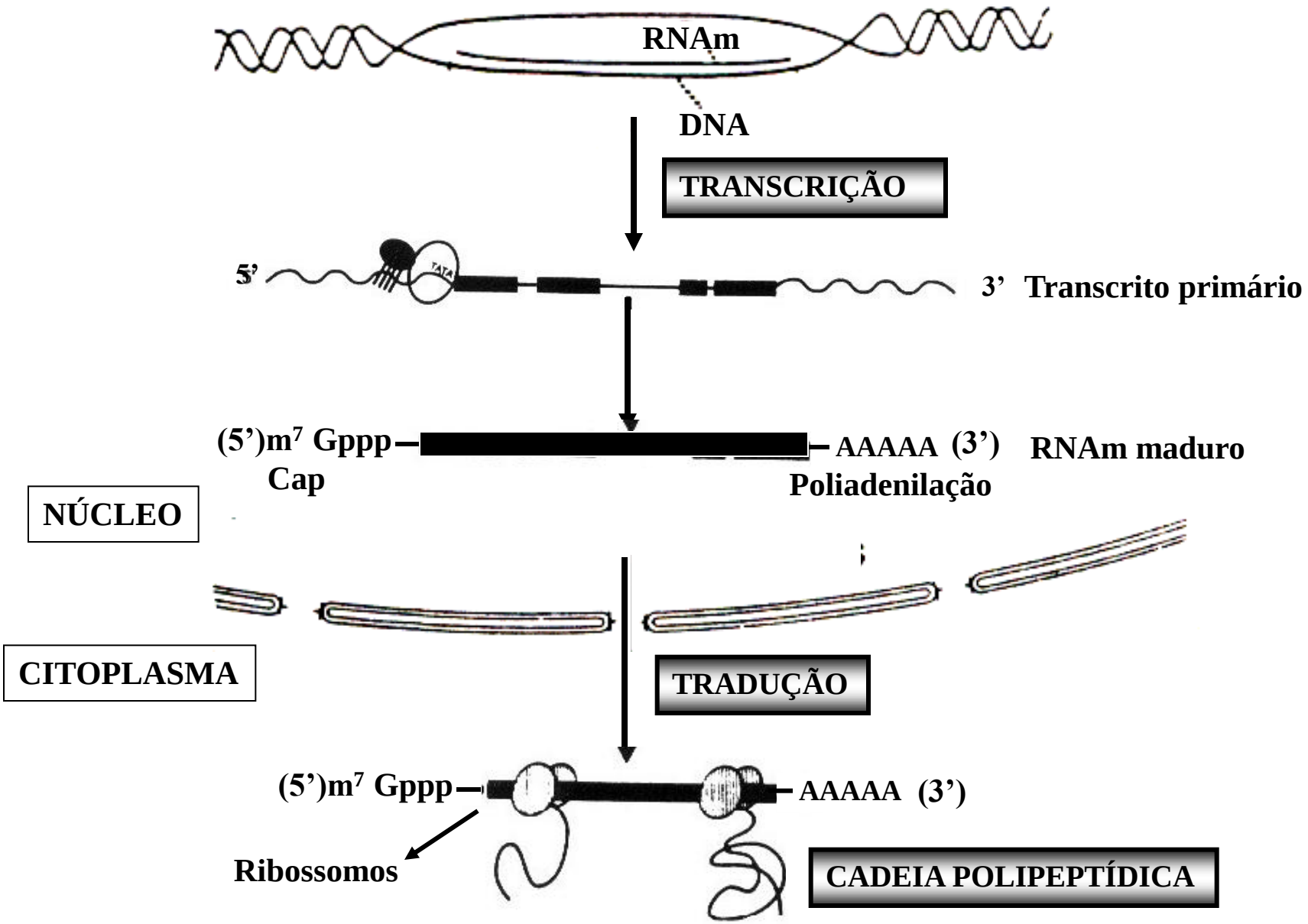
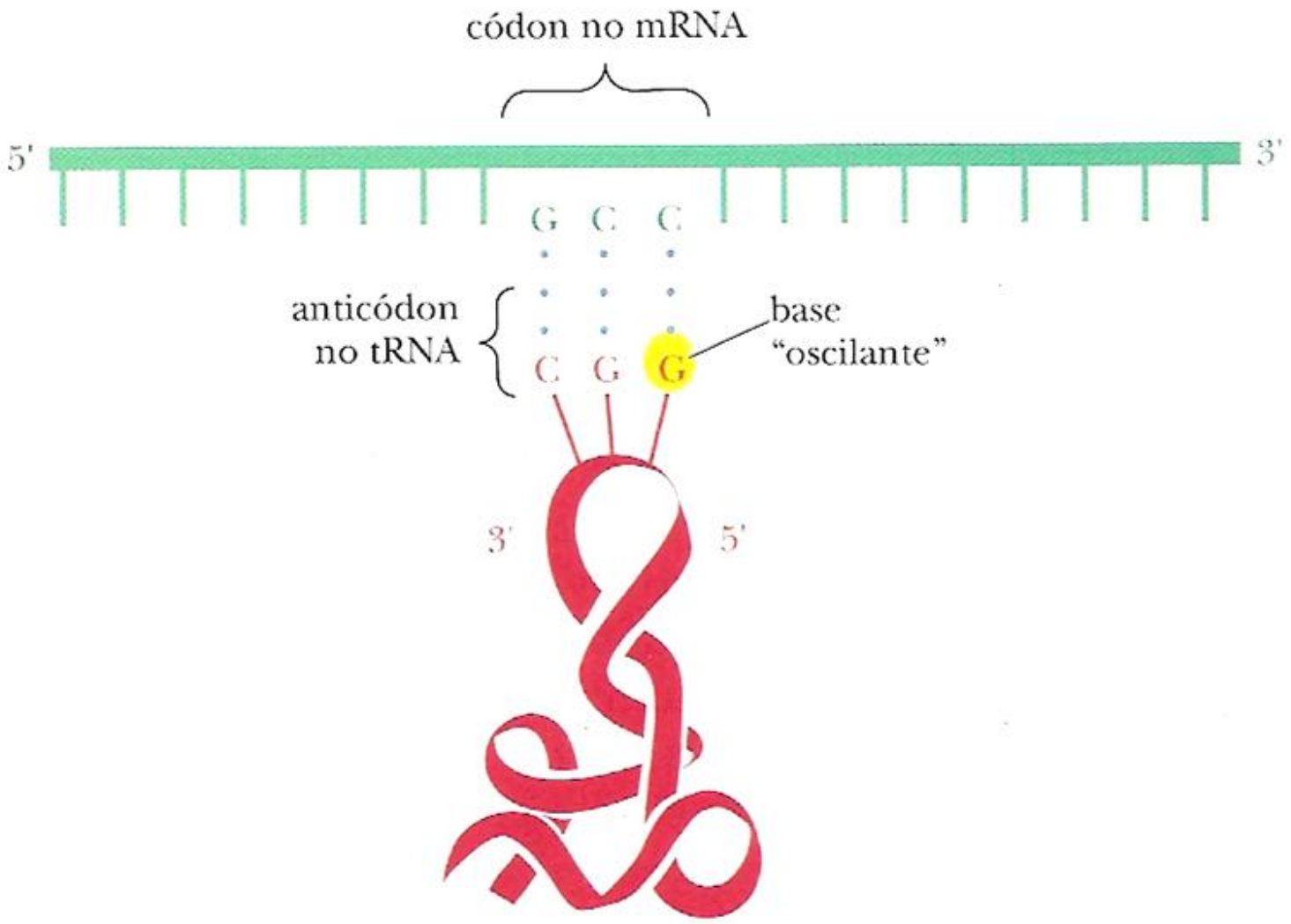
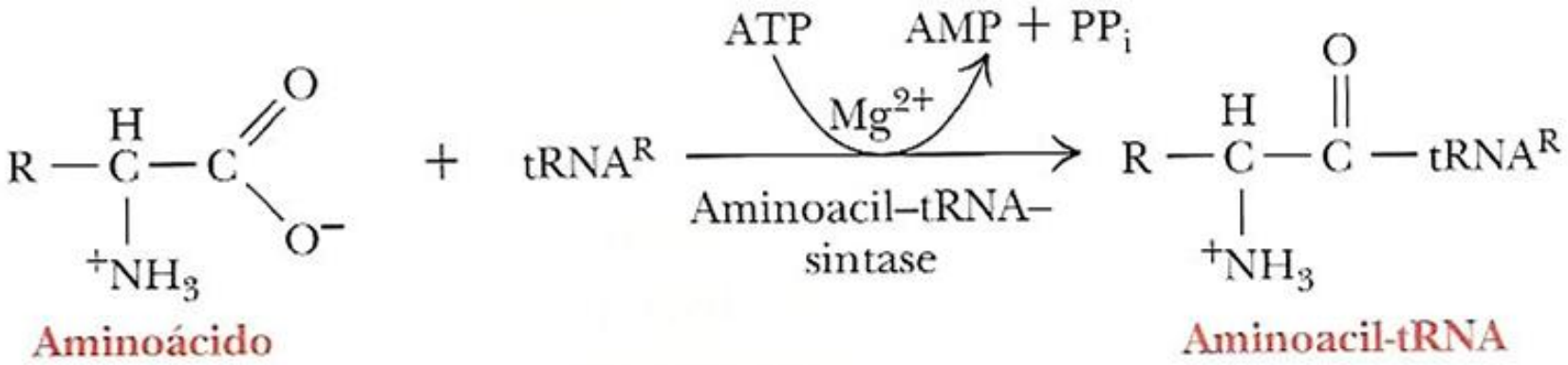
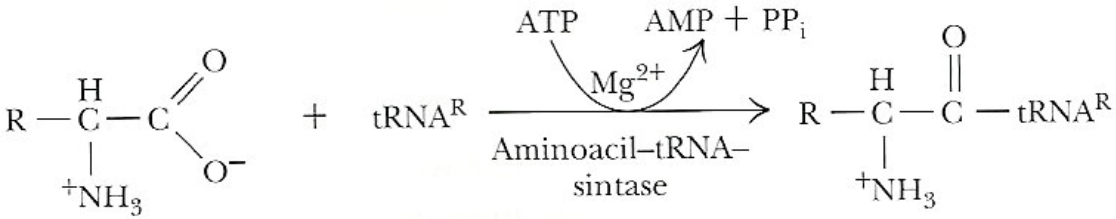

RNAm
DNA
TRANSCRIÇÃO
5'
TATA
3' Transcrito primário
(5')m7 Gppp
Cap
AAAAA (3')
Poliadenilação
RNAm maduro
NÚCLEO
CITOPLASMA
TRADUÇÃO
(5')m7 Gppp
AAAAA (3')
Ribossomos
CADEIA POLIPEPTÍDICA


códon no mRNA
5'
3'
G C C
anticódon
no tRNA
C G G
base
"oscilante"
3'
5'

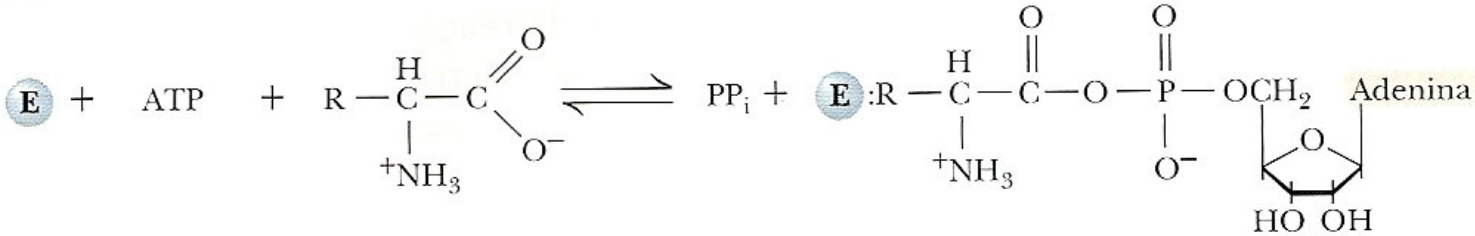
Reação da aminoacil-tRNA-sintase



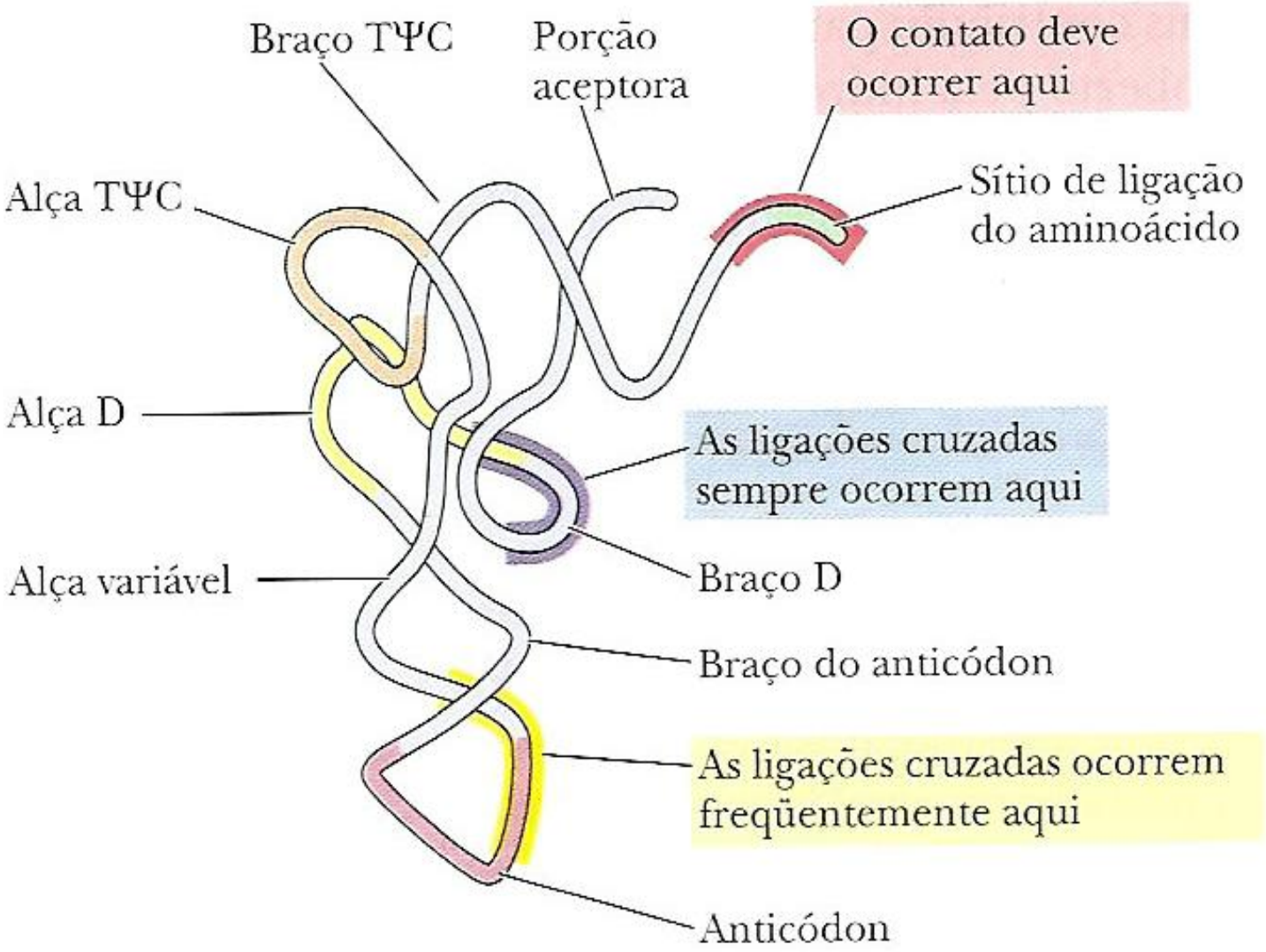
(a)



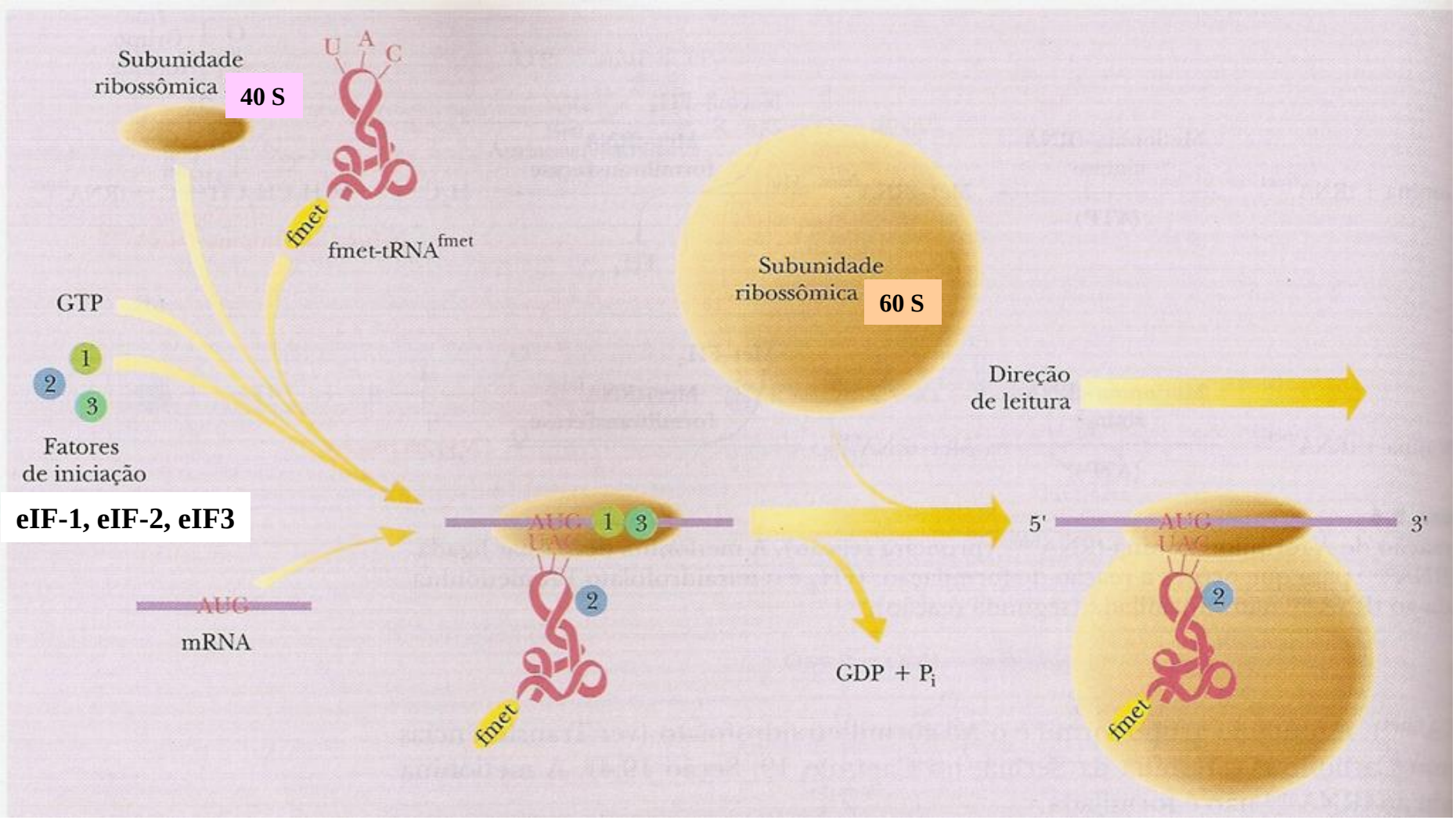
(b)



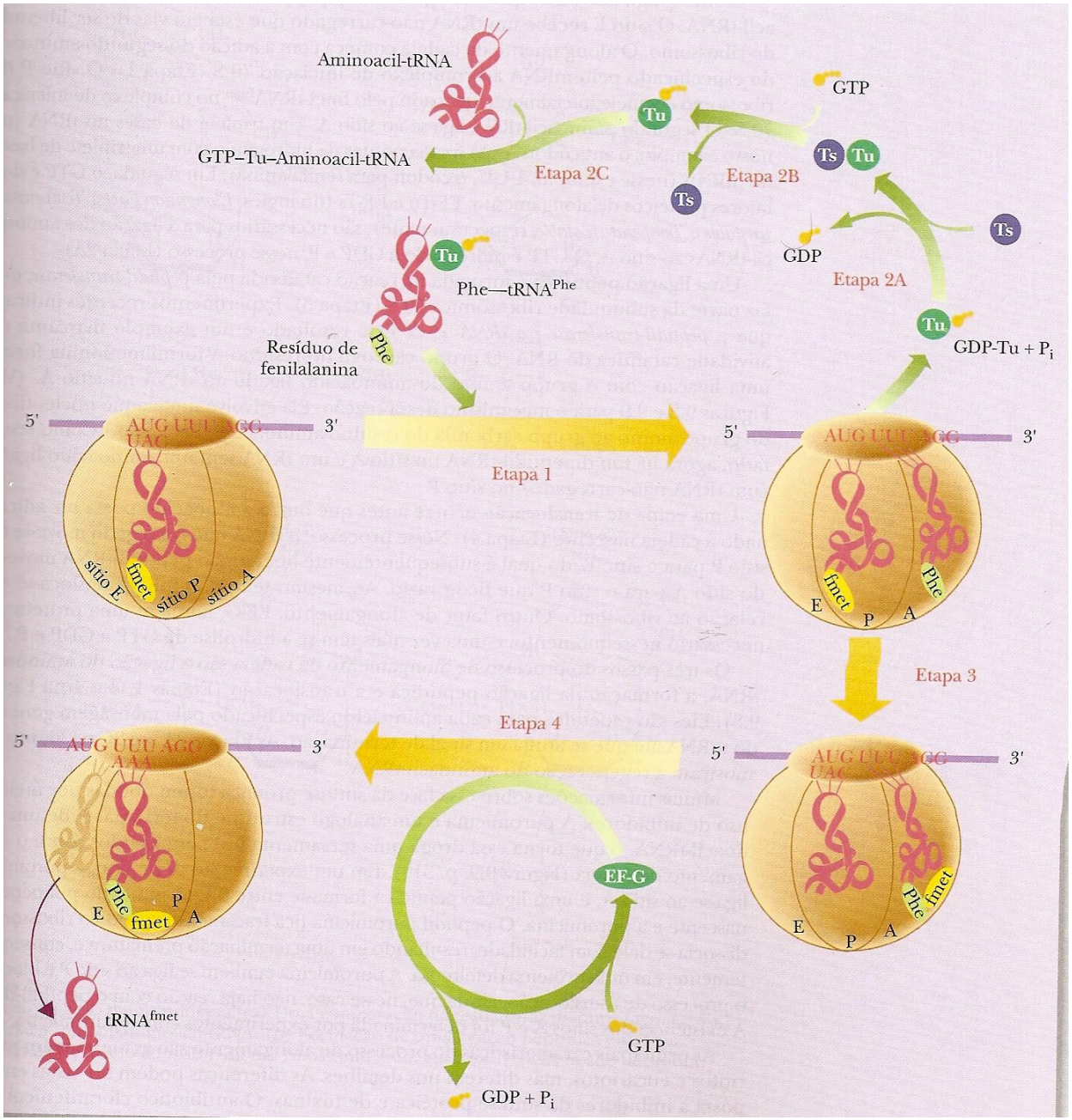
Aminoacil-adenilato ligado à enzima


Braço TΨC
Porção aceptora
O contato deve ocorrer aqui
Alça TΨC
Sítio de ligação do aminoácido
Alça D
As ligações cruzadas sempre ocorrem aqui
Braço D
Alça variável
Braço do anticódon
As ligações cruzadas ocorrem freqüentemente aqui
Anticódon

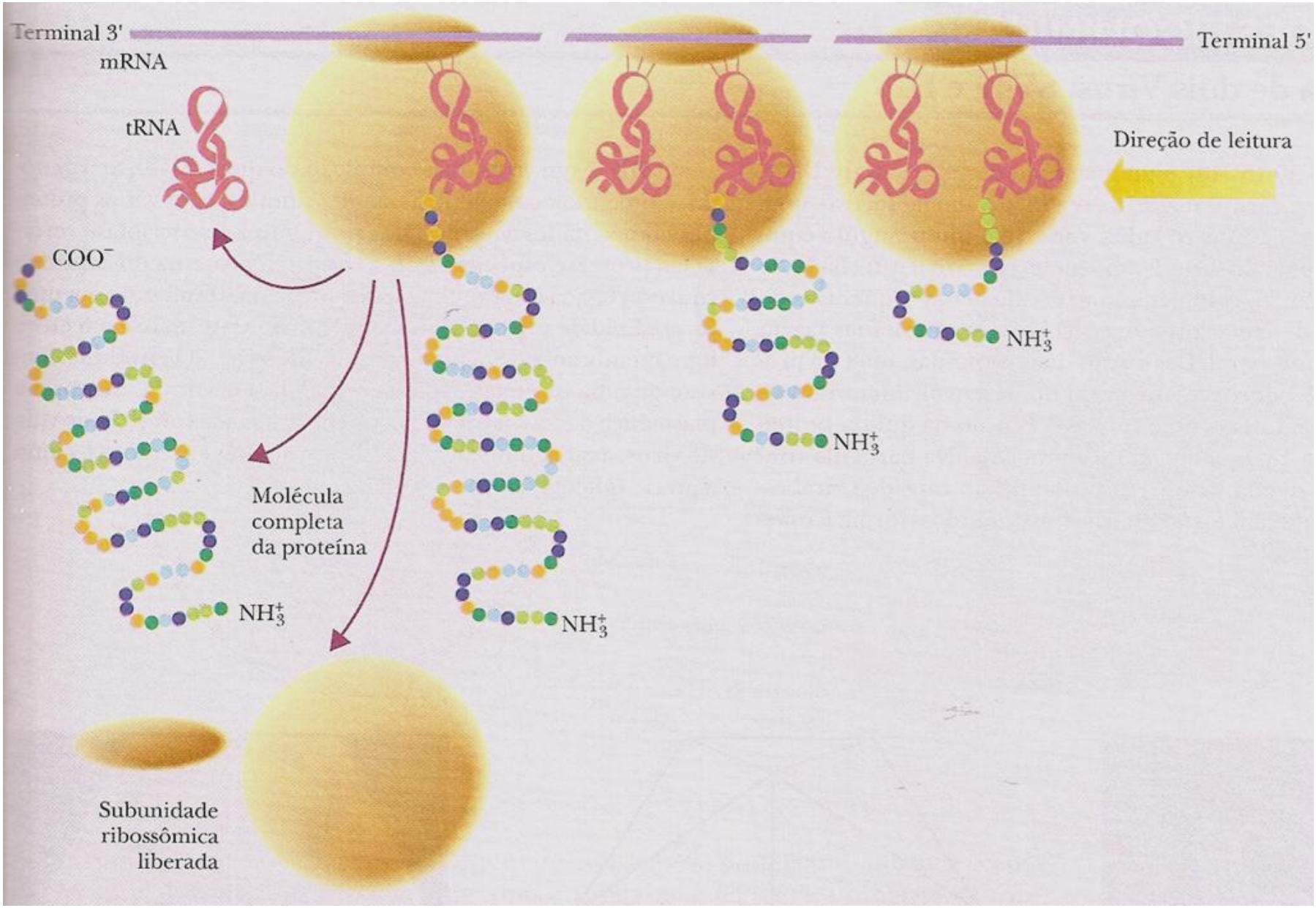
Formação de um complexo de iniciação



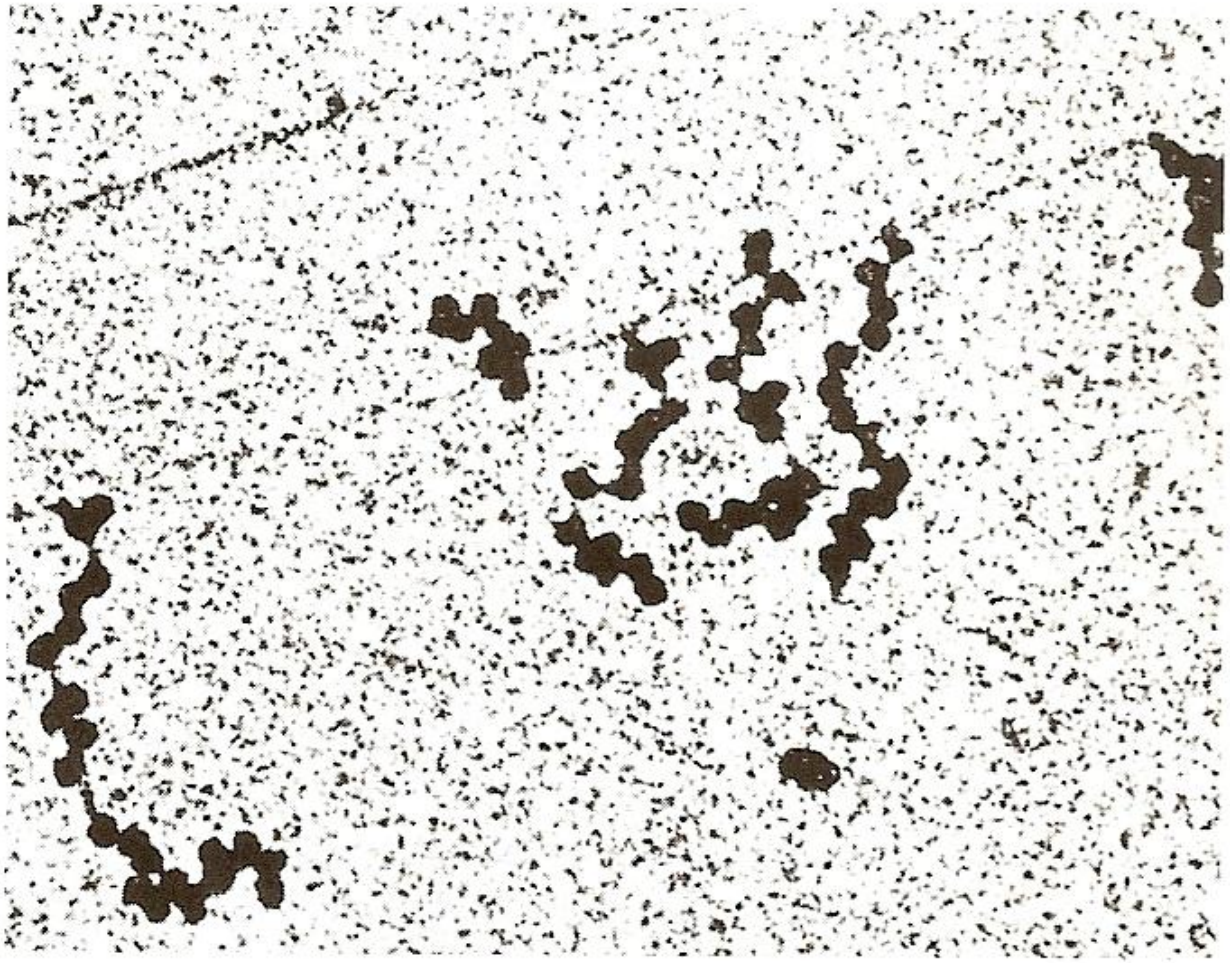
Elongação da Cadeia

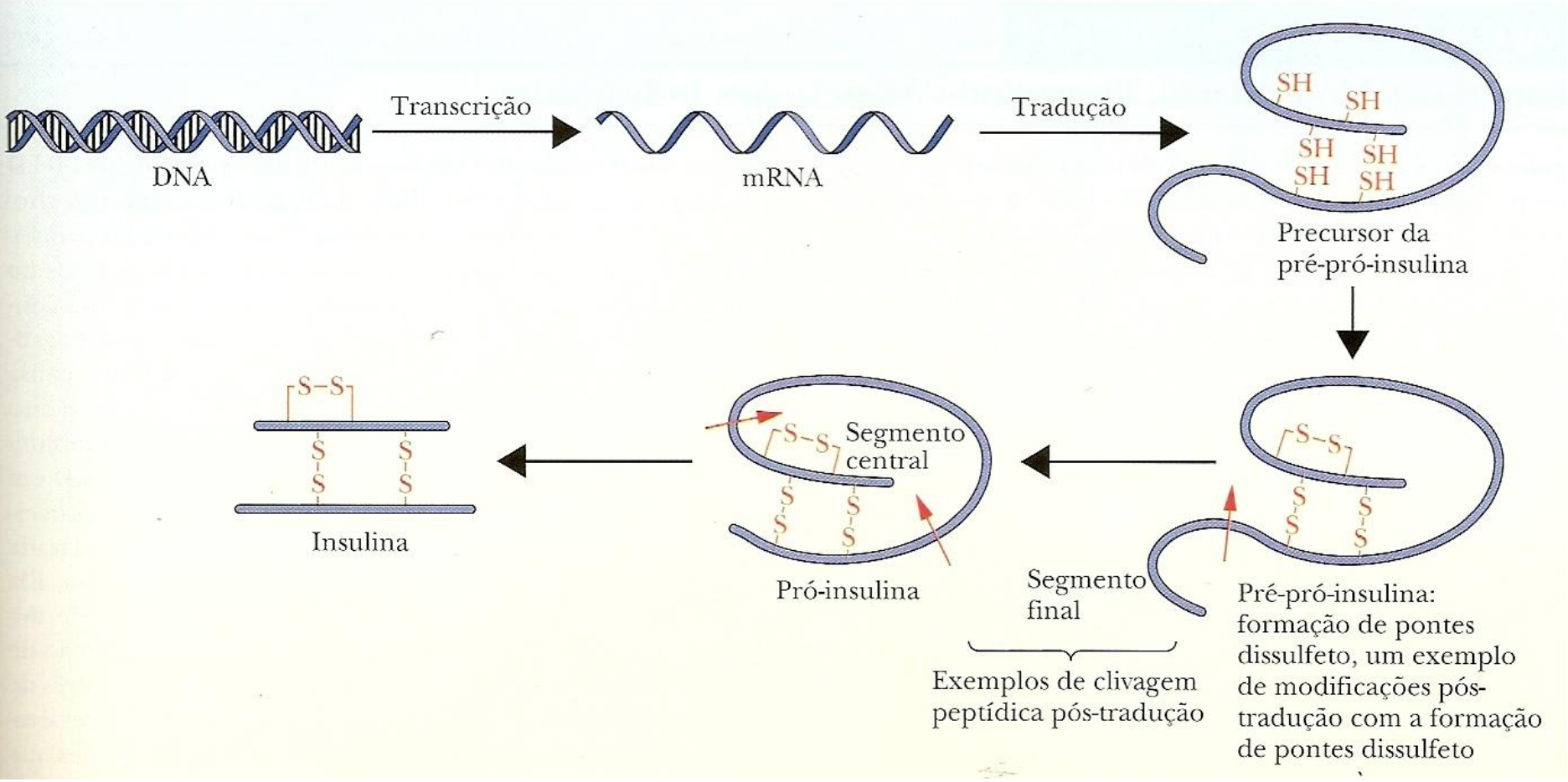


Síntese de proteína



Micrografia eletrônica mostrando o acoplamento transcrição-tradução



Pontos escuros são ribossomos, arranjados em grupos sobre uma fita de mRNA. Várias moléculas de mRNA foram transcritas de uma fita de DNA (linha diagonal do centro para o canto superior direito da figura)

Síntese da Insulina