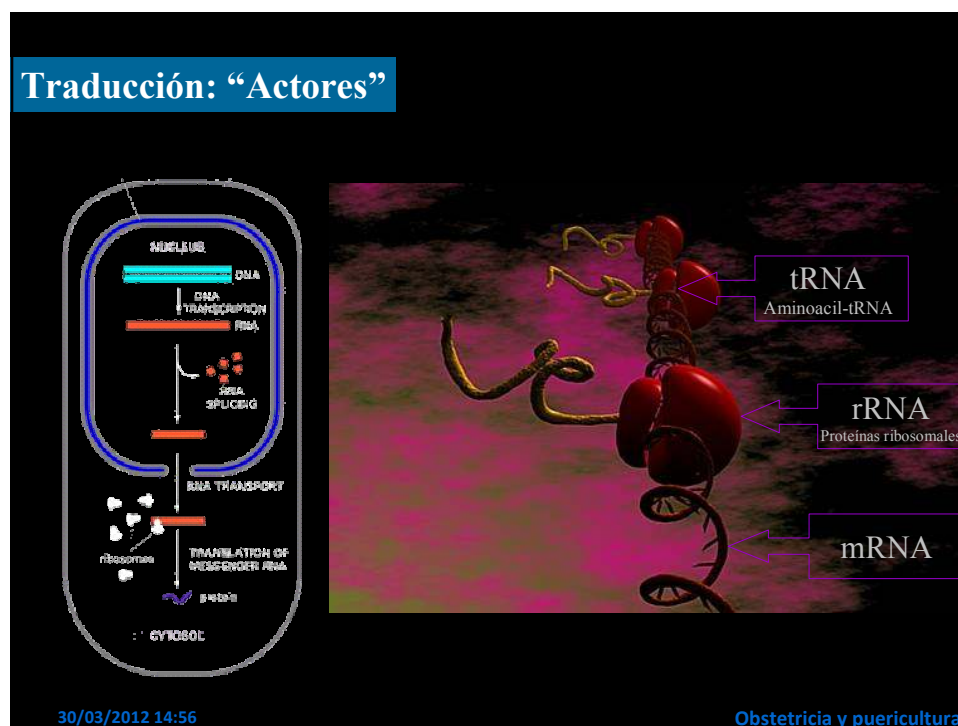
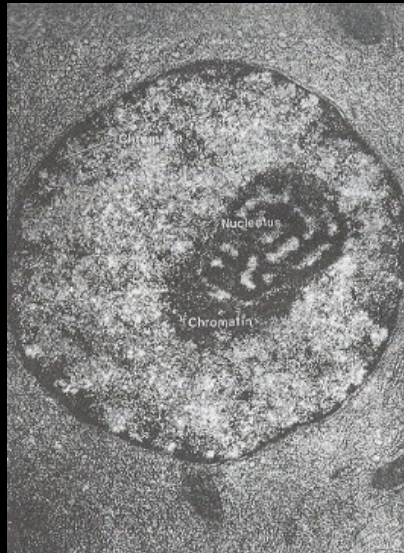




Ribosomas - Nucléolo

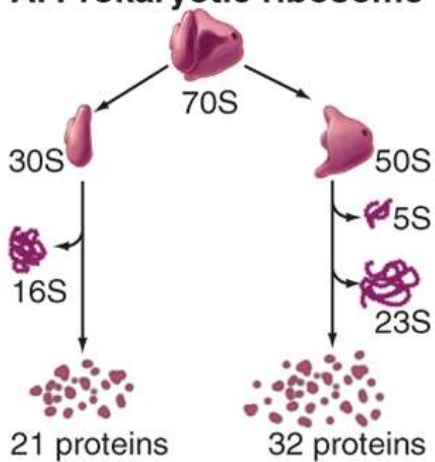


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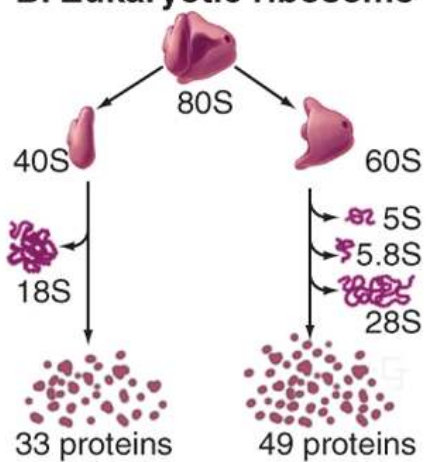
Obstetricia y puericultura

Ribosomas - Nucléolo

A. Prokaryotic ribosome



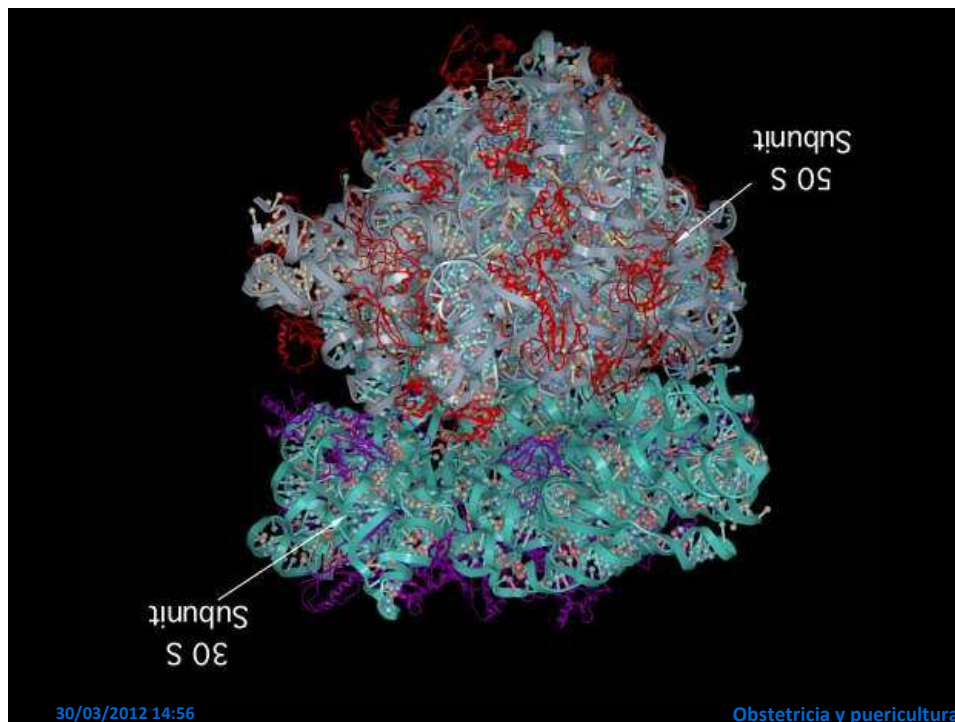
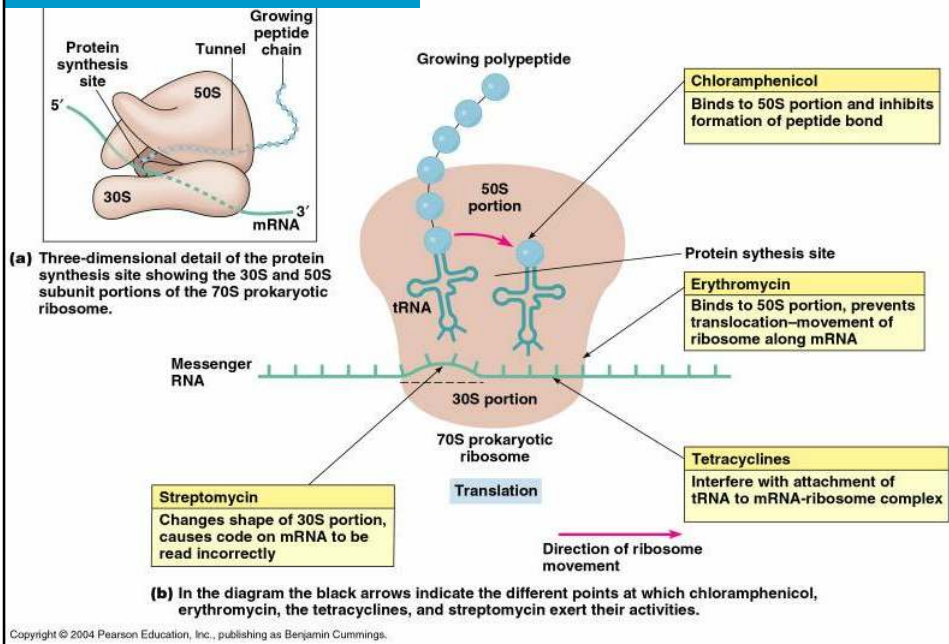
B. Eukaryotic ribosome



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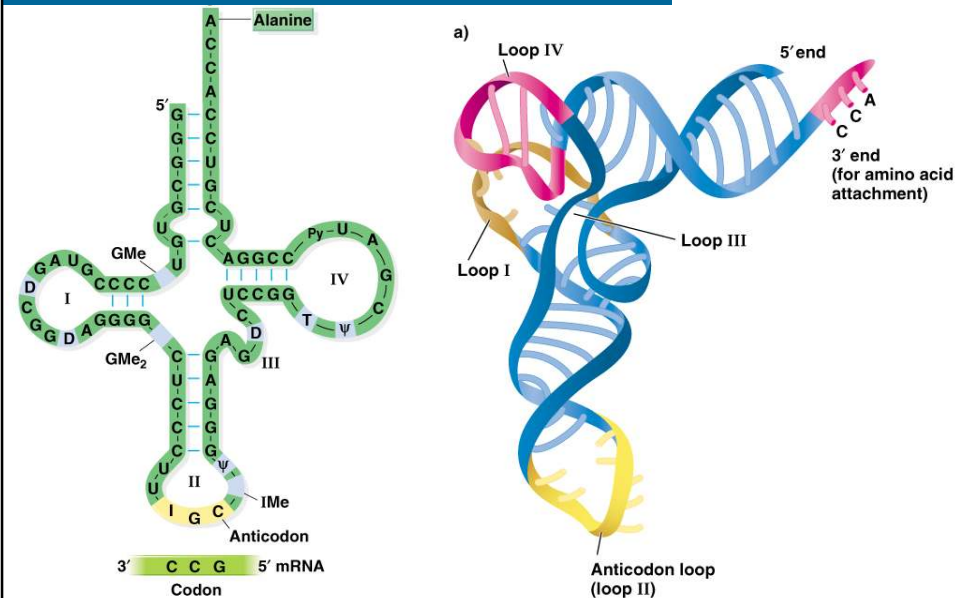
Obstetricia y puericultura

Acción antibióticos

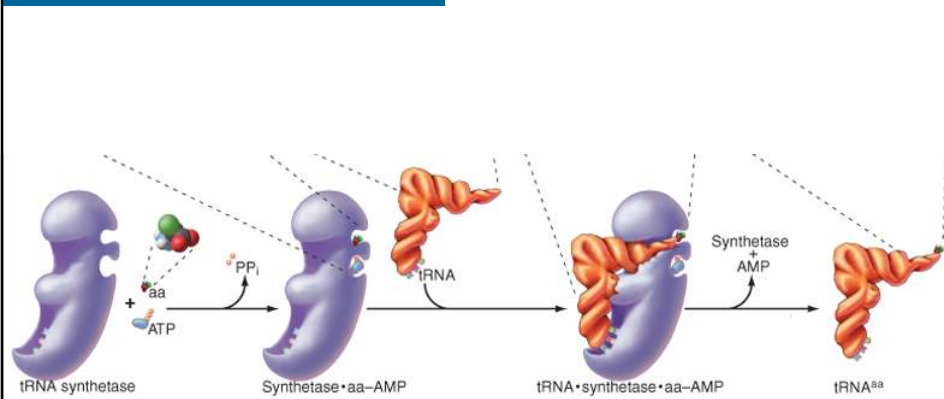


Traducción: “Actores”

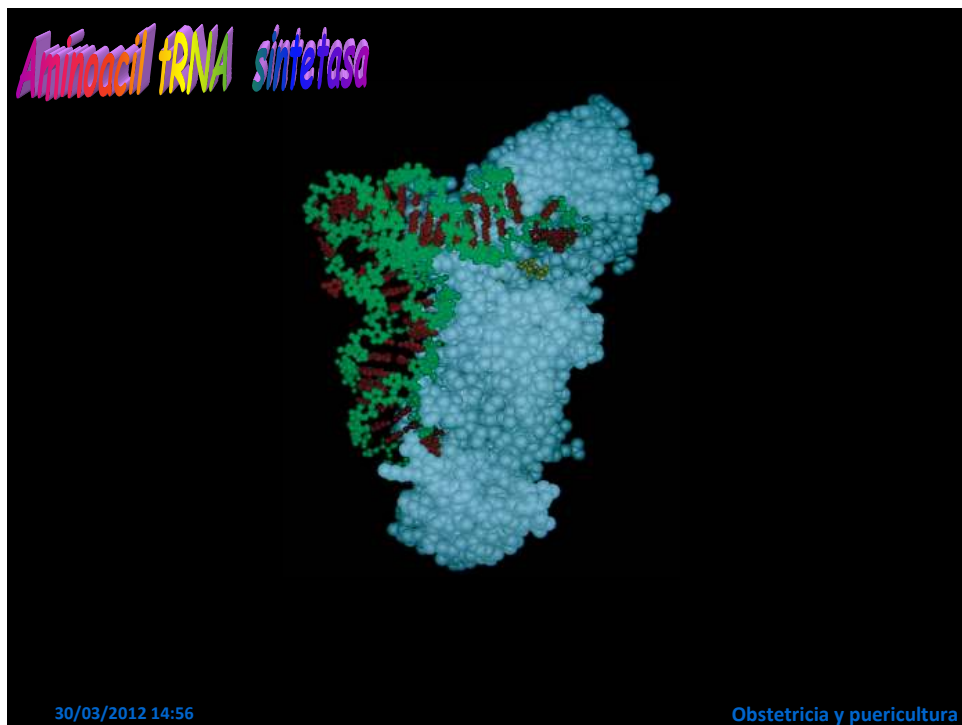
tRNA -Aminoacil-tRNA



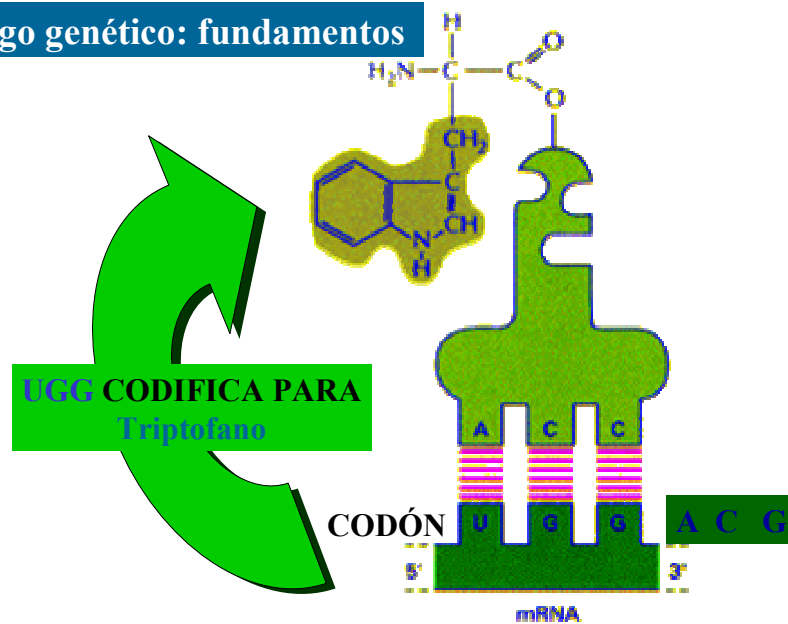
Aminoacil tRNA sintetasa



© Elsevier. Pollard et al: Cell Biology 2e - www.studentconsult.com



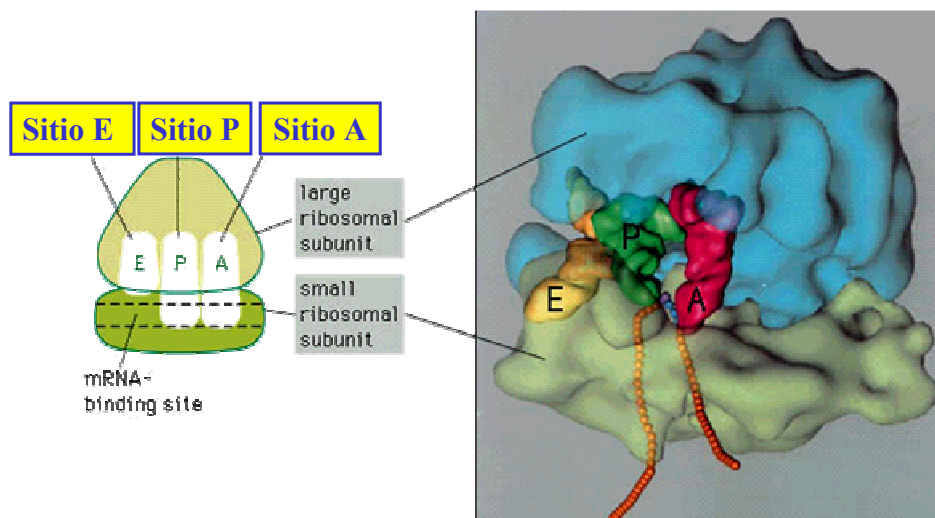
Código genético: fundamentos



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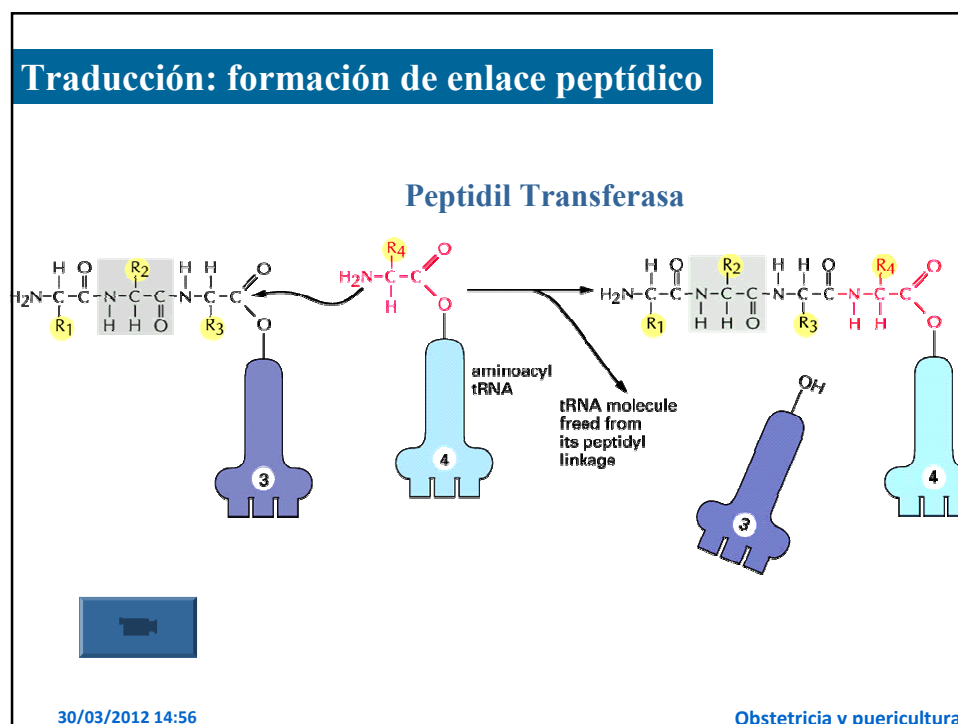
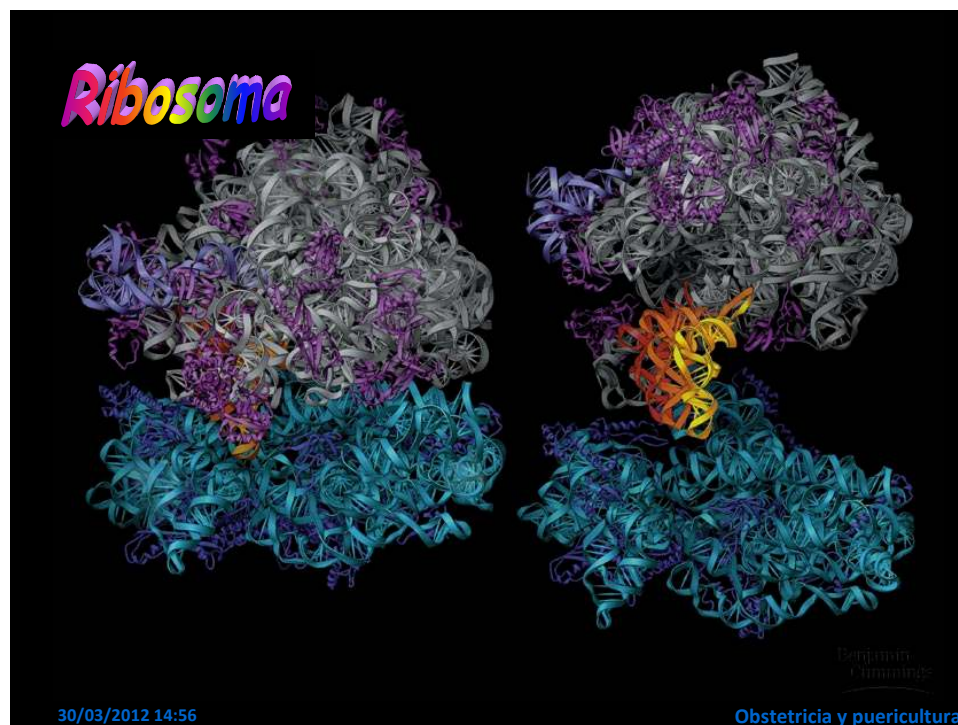
Obstetricia y puericultura

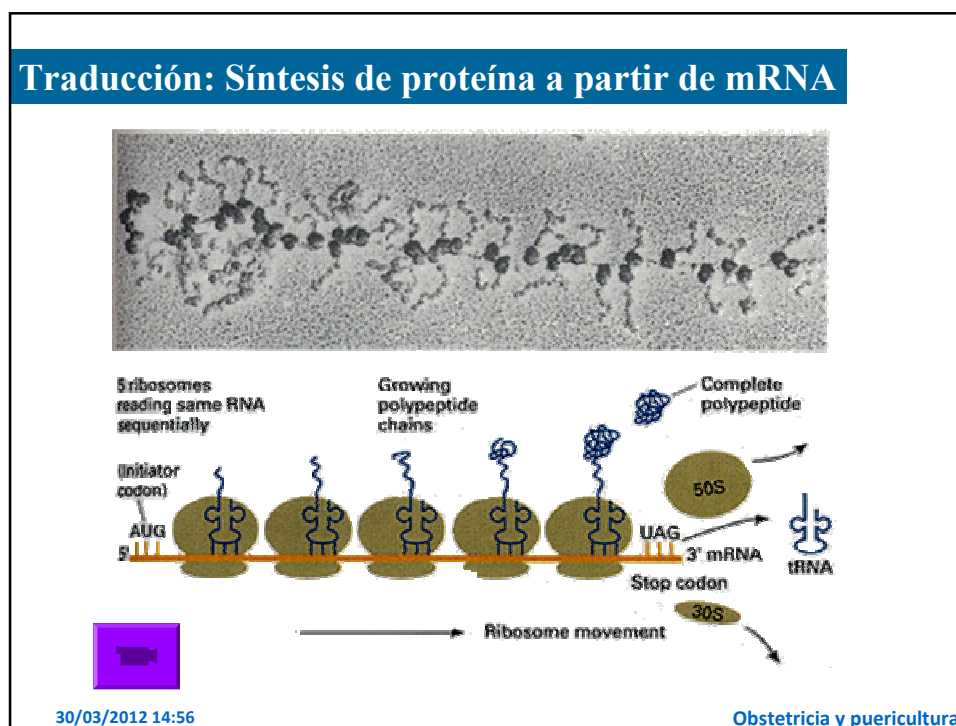
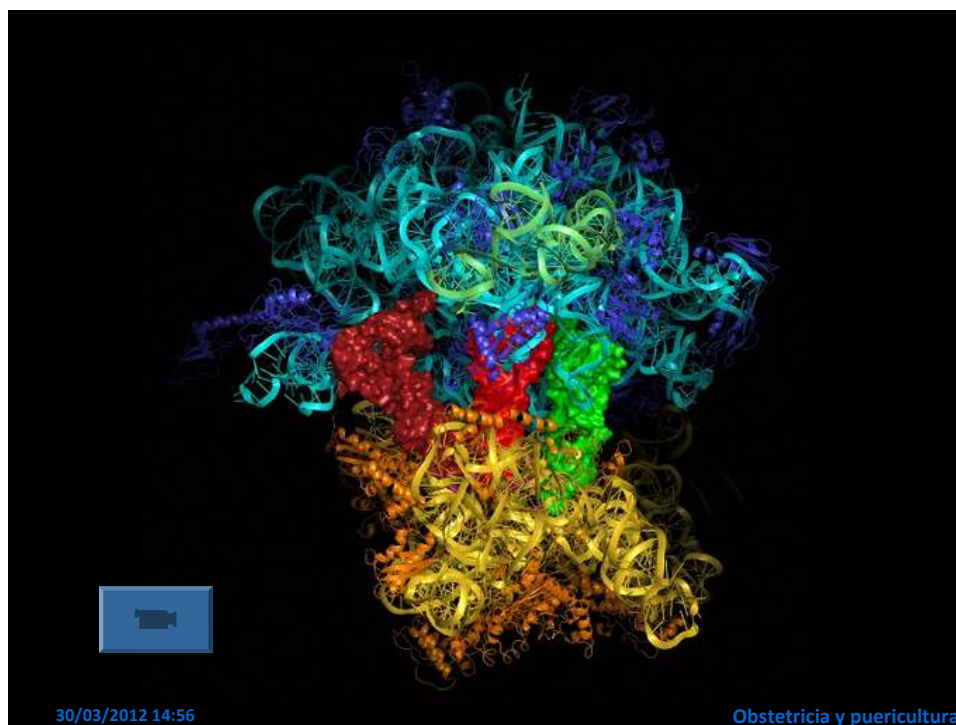
Traducción: Ribosoma



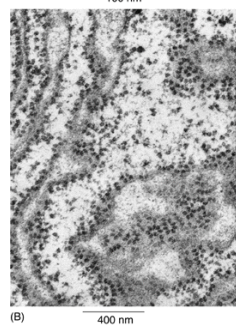
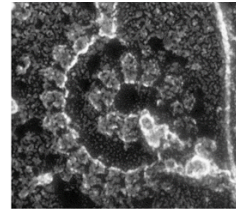
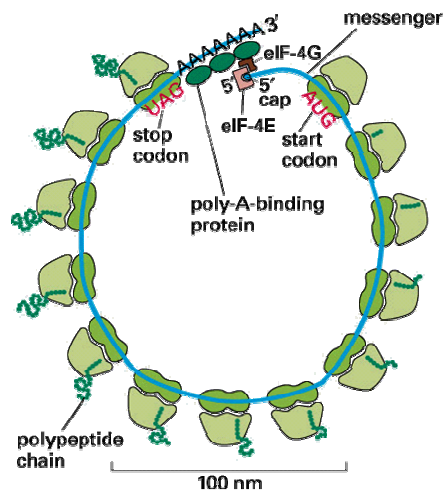
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Obstetricia y puericultura





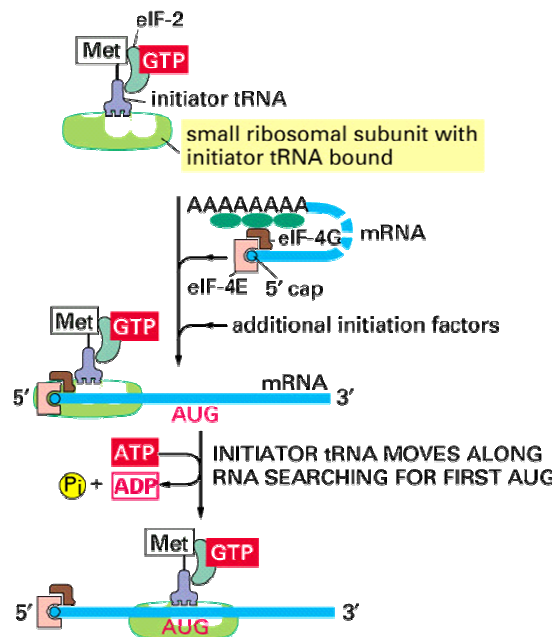
Traducción: Polisomas



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Obstetricia y puericultura

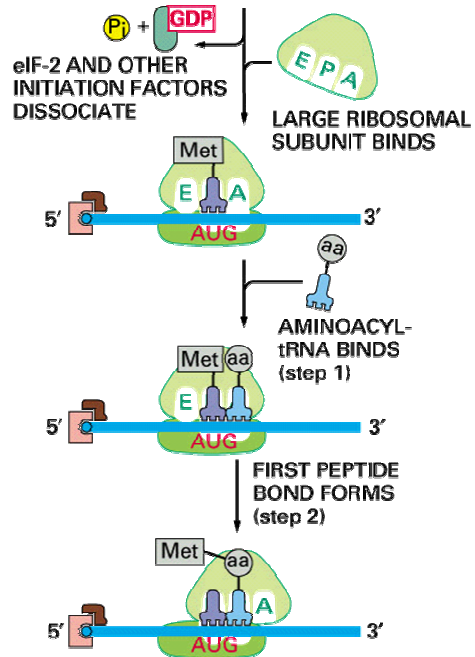
Traducción: inicio



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Obstetricia y puericultura

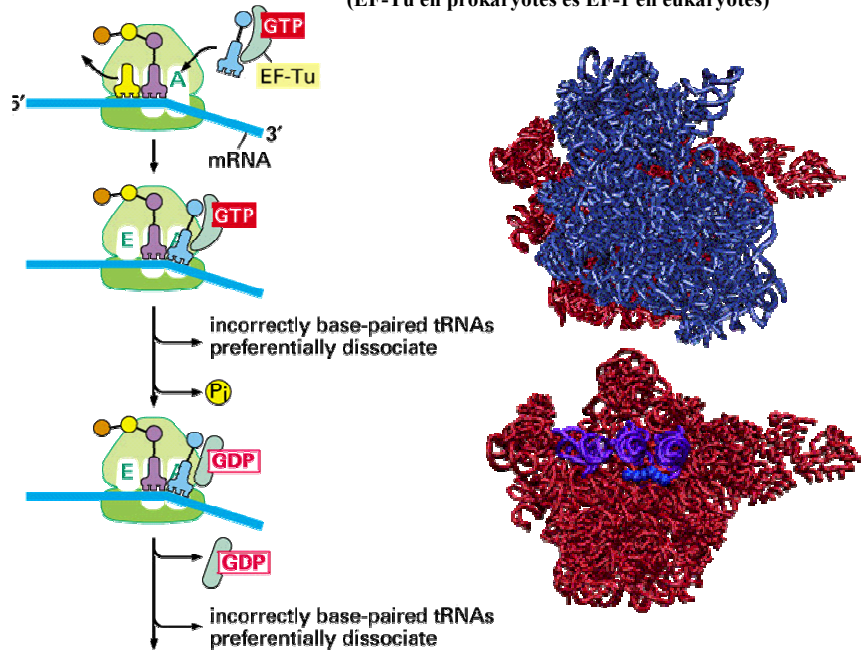
Traducción: inicio



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Obstetricia y puericultura

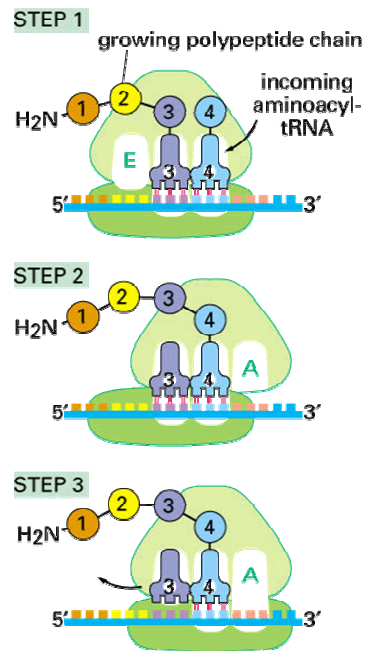
(EF-Tu en prokaryotes es EF-1 en eukaryotes)



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Obstetricia y puericultura

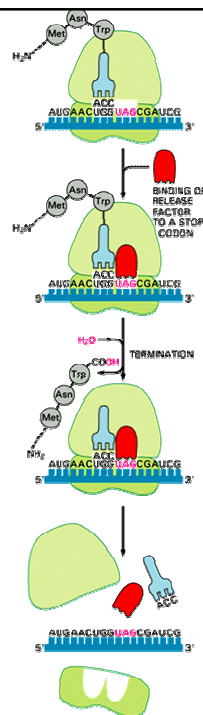
Traducción: elongación



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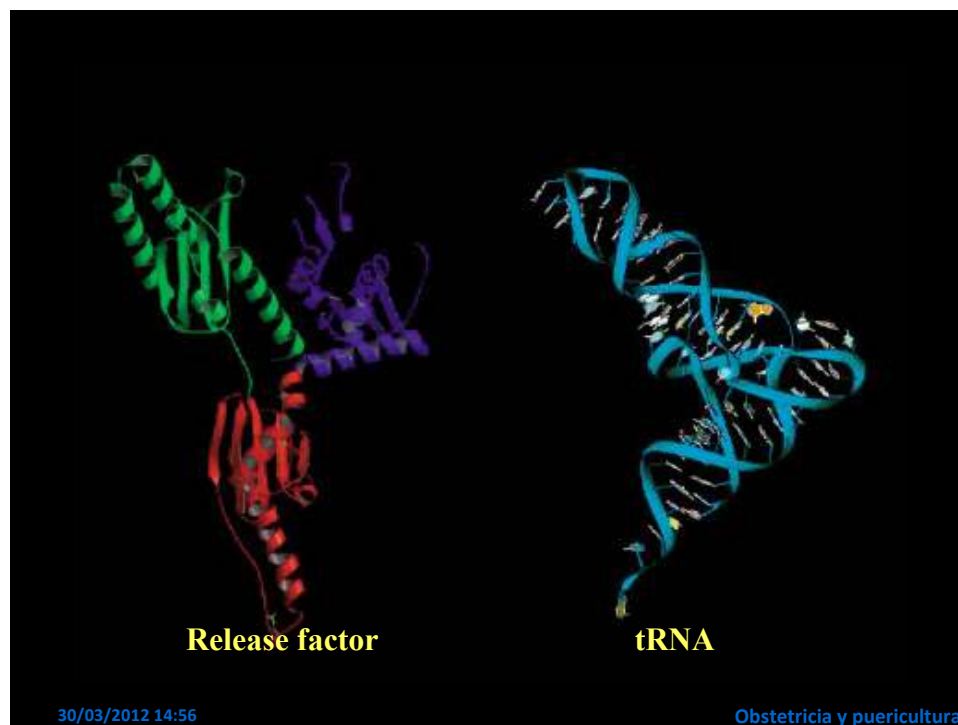
Obstetricia y puericultura

Traducción: término



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Obstetricia y puericultura



Código Genético

1st position ↓ 5' end	2nd position				3rd position ↓ 3' end
	U	C	A	G	
U	Phe Phe Leu Leu	Ser Ser Ser Ser	Tyr Tyr STOP STOP	Cys Cys STOP Trp	U C A G
C	Leu Leu Leu Leu	Pro Pro Pro Pro	His His Gln Gln	Arg Arg Arg Arg	U C A G
A	Ile Ile Ile Met	Thr Thr Thr Thr	Asn Asn Lys Lys	Ser Ser Arg Arg	U C A G
G	Val Val Val Val	Ala Ala Ala Ala	Asp Asp Glu Glu	Gly Gly Gly Gly	U C A G

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Obstetricia y puericultura

Distinctive codons of human mitochondria

Codon	Standard code	Mitochondrial code
UGA	Stop	Trp
UGG	Trp	Trp
AUA	Ile	Met
AUG	Met	Met
AGA	Arg	Stop
AGG	Arg	Stop

CUG is serine instead of leucine in *Candida albicans*

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Obstetricia y puericultura

Individuo 1

TAC CAC GTG GAC TGA GGA CTC CTC TTC	DNA. H. molde
AUG GUG CAC CUG ACU CCU GAG GAG AAG	mRNA
Met. Val . His . Leu. Thr . Pro. Glu . Glu . Lis	Proteína

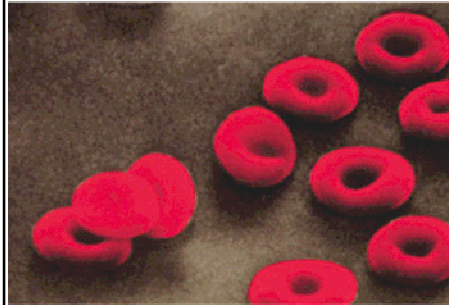
Individuo 2

TAC CAC GTG GAC TGA GGA CAC CTC TTC	DNA. H. molde
AUG GUG CAC CUG ACU CCU GUG GAG AAG	mRNA
Met. Val . His . Leu. Thr . Pro. Val . Glu . Lis	Proteína

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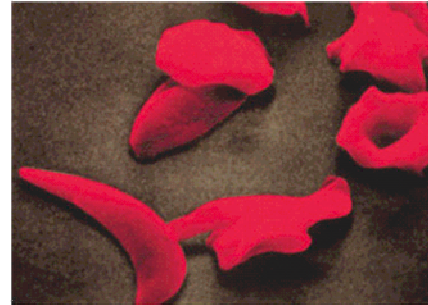
Obstetricia y puericultura

Anemia Falciforme



Val	His	Leu	Thr	Pro	Glu	Glu	...
1	2	3	4	5	6	7	

(a) Normal red blood cells and the primary structure of normal hemoglobin



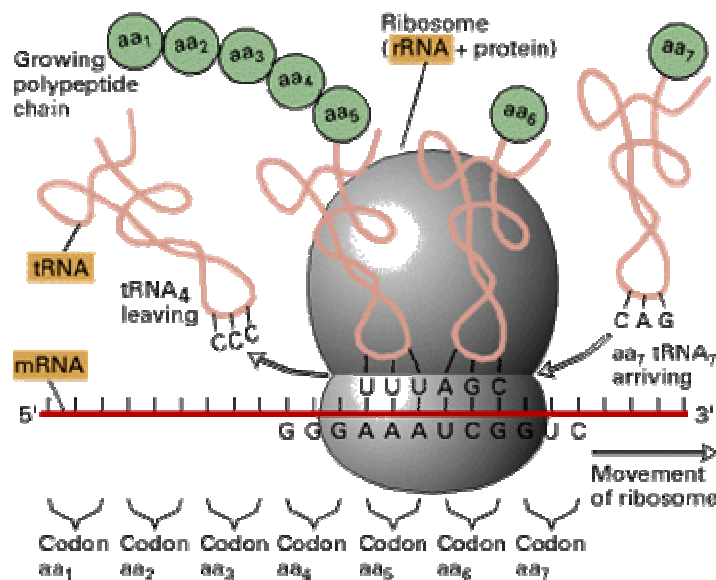
Val	His	Leu	Thr	Pro	Val	Glu	...
1	2	3	4	5	6	7	

(b) Sickled red blood cells and the primary structure of sickle-cell hemoglobin

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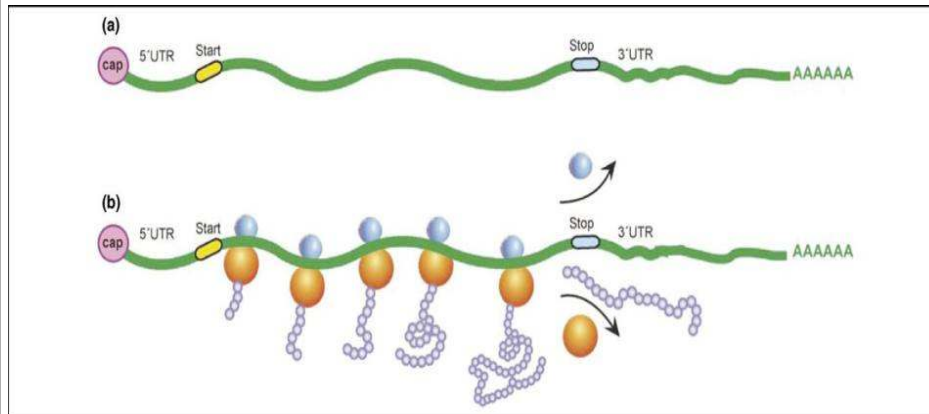
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Estructura mRNA

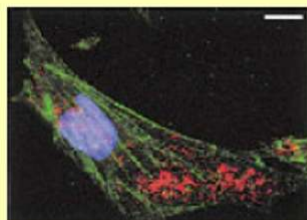


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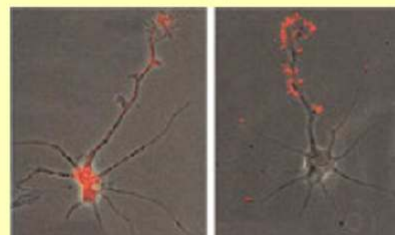
Obstetricia y puericultura

2.2. mRNA targeting results in localized synthesis of proteins

2.2.1. Different types of translocated mRNA (1)

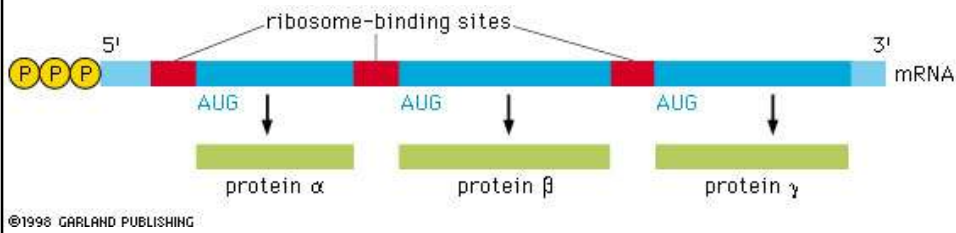


Peripheral localization of β -actin mRNA in fibroblasts of chicken embryo



Localization of β -actin mRNA in neurite growth cones

...qué es un gen???



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Obstetricia y puericultura

Control de la expresión génica

- Transcripción (activación/inhibición)

Nivel
transcripcional

- Vida media del RNA
- Splicing alternativo
- Salida del mRNA del núcleo

Nivel
posttranscripcional

- Traducción

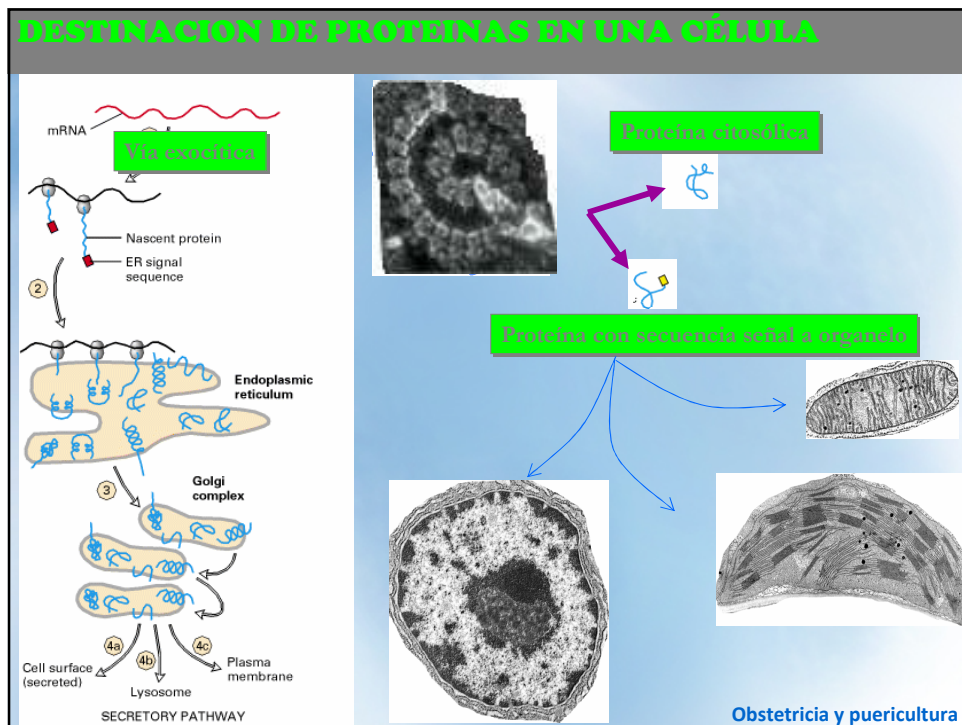
Nivel
traduccional

- Vida media de la proteína
- Modificaciones post-traduccionales (fosforilaciones u otras)

Nivel
posttraduccional

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Obstetricia y puericultura

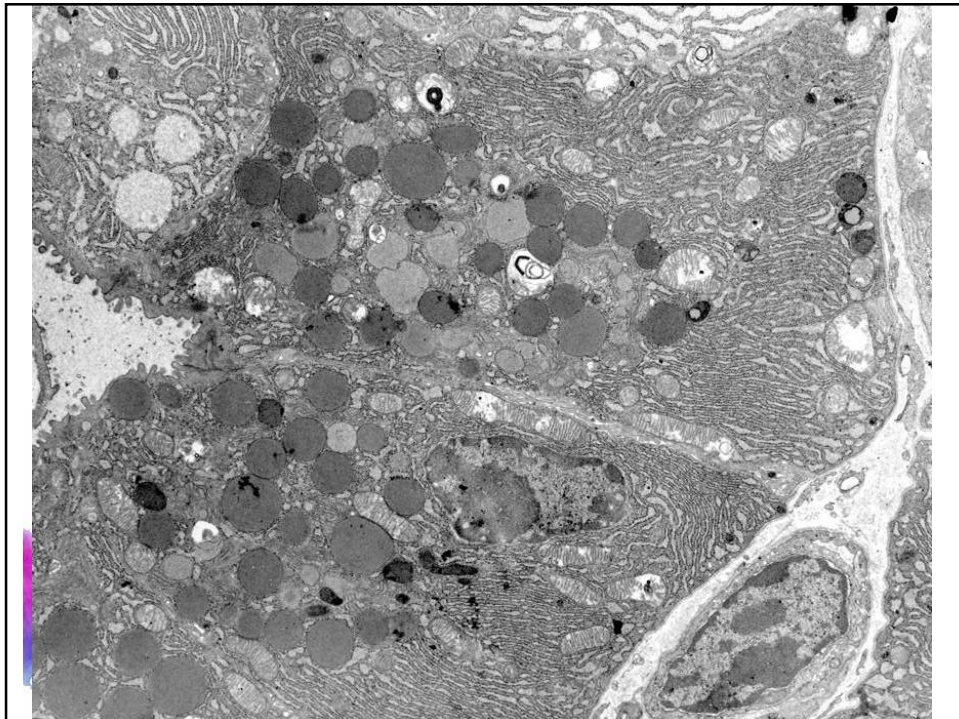
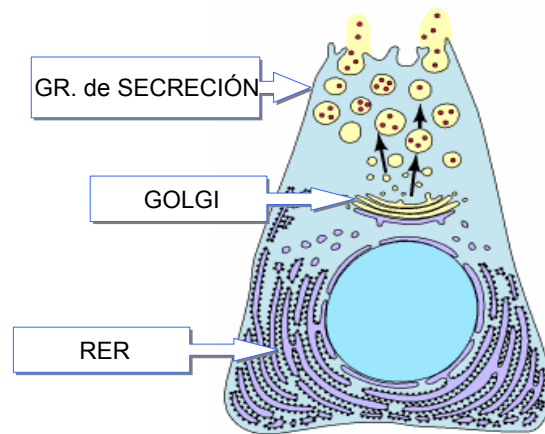


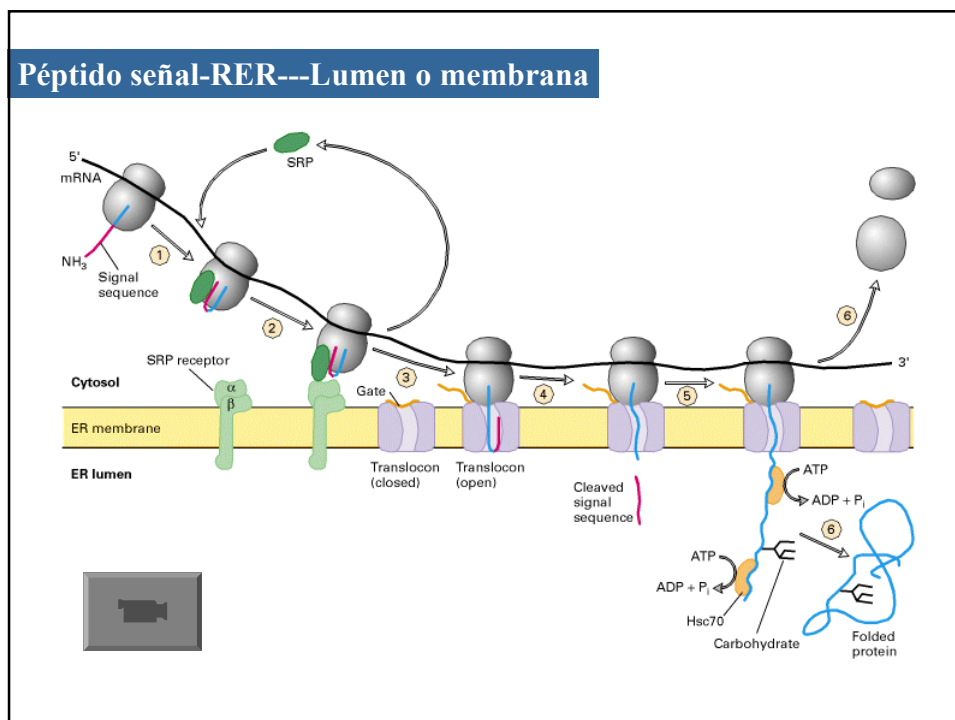
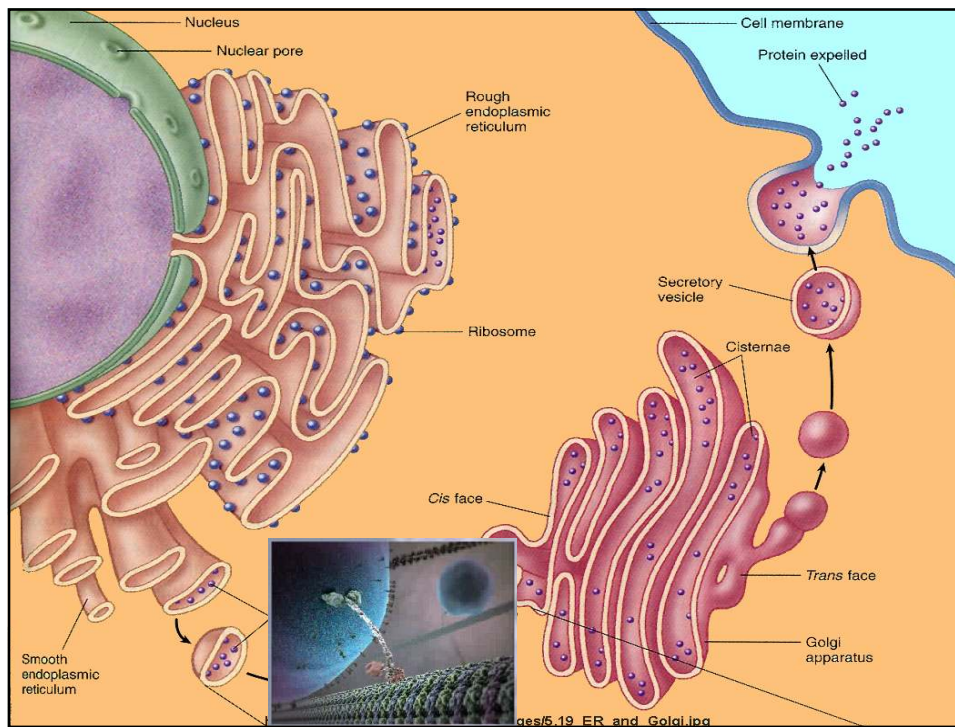
Señales y destinos

Function of Signal Peptide	Example of Signal Peptide
Import into ER	$\text{H}_3\text{N}^+\text{-Met-Met-Ser-Phe-Val-Ser-}\text{Leu-Leu-Leu-Val-}$ $\text{Gly-Ile-Leu-Phe-Trp-Ala-Thr-Glu-Ala-Glu-}$ $\text{Gln-Leu-Thr-Lys-Cys-Glu-Val-Phe-Gln-}$
Retain in lumen of ER	$\text{-Lys-Asp-Glu-Leu-COO}^-$
Import into mitochondria	$\text{H}_3\text{N}^+\text{-Met-Leu-Ser-Leu-Arg-Gln-Ser-Ile-Arg-Phe-}$ $\text{Phe-Lys-Pro-Ala-Thr-Arg-Thr-Leu-Cys-Ser-}$ $\text{Ser-Arg-Tyr-Leu-Leu-}$
Import into nucleus	$\text{-Pro-Pro-Lys-Lys-Lys-Arg-Lys-Val-}$
Import into peroxisomes	-Ser-Lys-Leu-
Attach to membranes via the covalent linkage of a myristic acid to the amino terminus	$\text{H}_3\text{N}^+\text{-Gly-Ser-Ser-Lys-Ser-Lys-Pro-Lys-}$

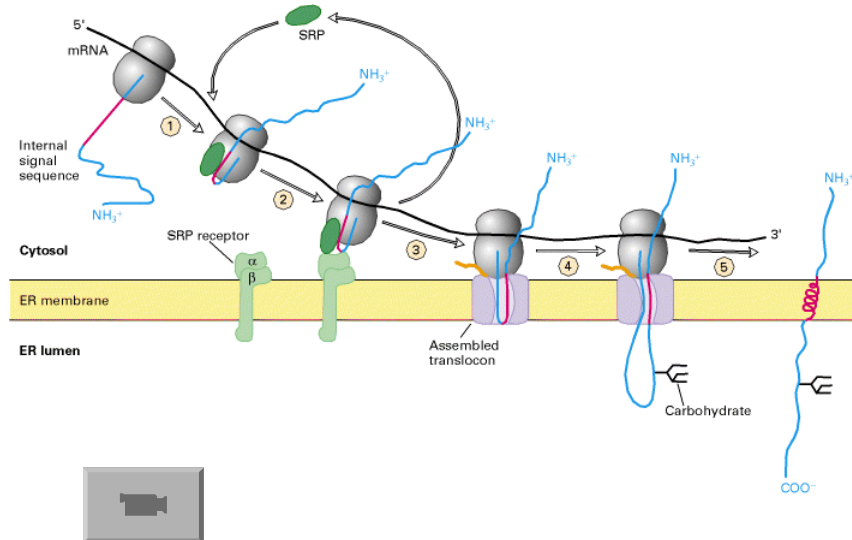
Positively charged amino acids are shown in *red* and negatively charged amino acids in *green*. An extended block of hydrophobic amino acids is enclosed in a *yellow* box. H_3N^+ indicates the amino terminus of a protein; COO^- indicates the carboxyl terminus.

Vía exocítica

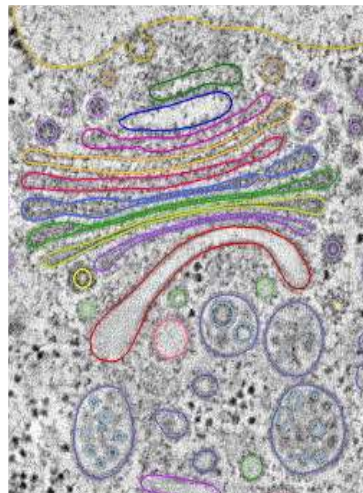




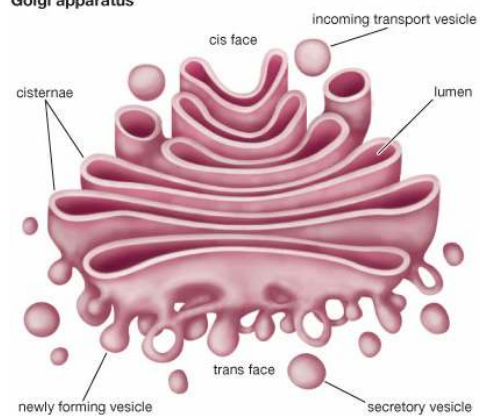
Péptido señal-RER---Lumen o membrana



Complejo de Golgi



Golgi apparatus



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