

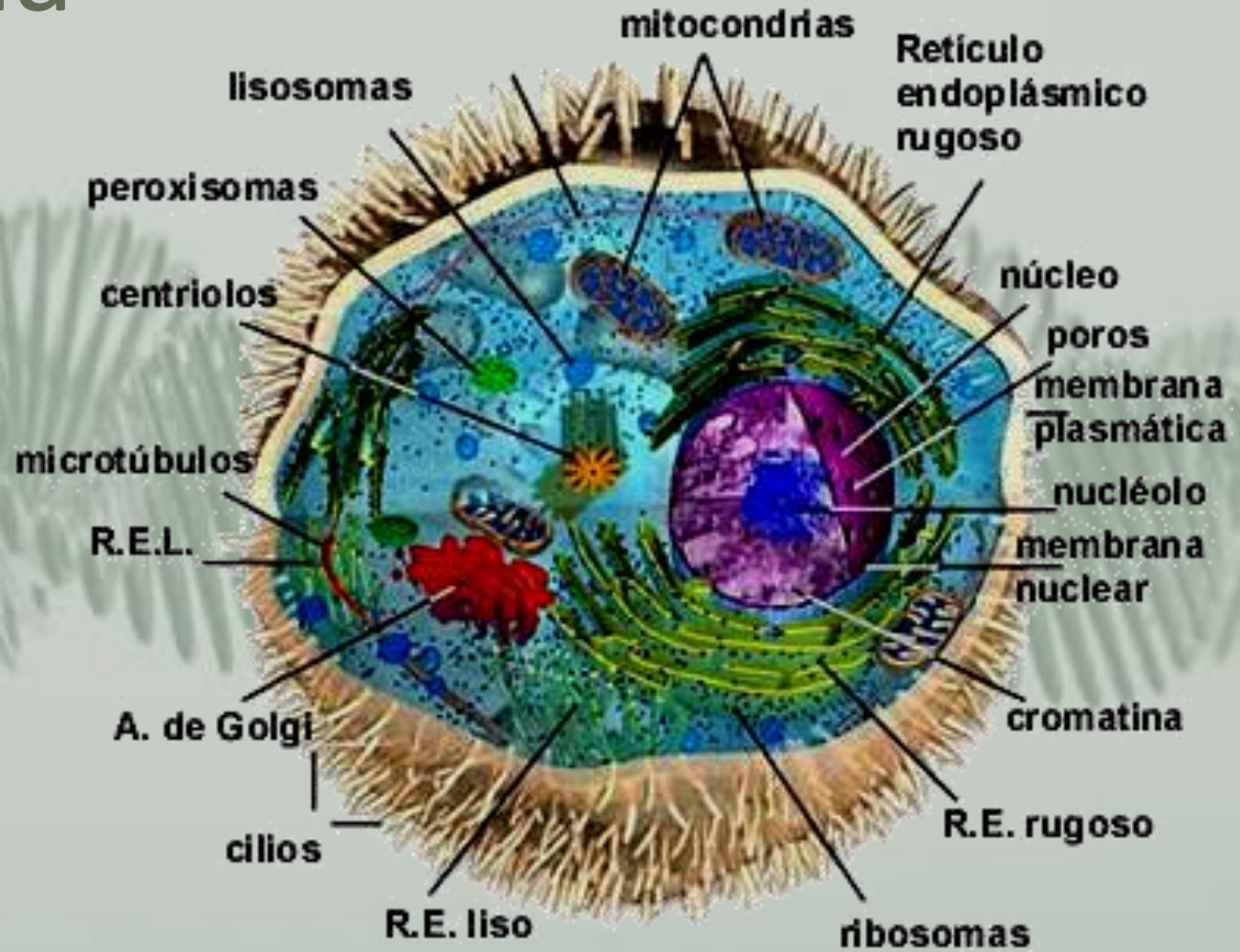
# LA MAQUINARIA MOLECULAR

Prof. Ricardo Silva, PH.D., C.C.E.



# La Célula

## Estructura de la célula eucariota animal

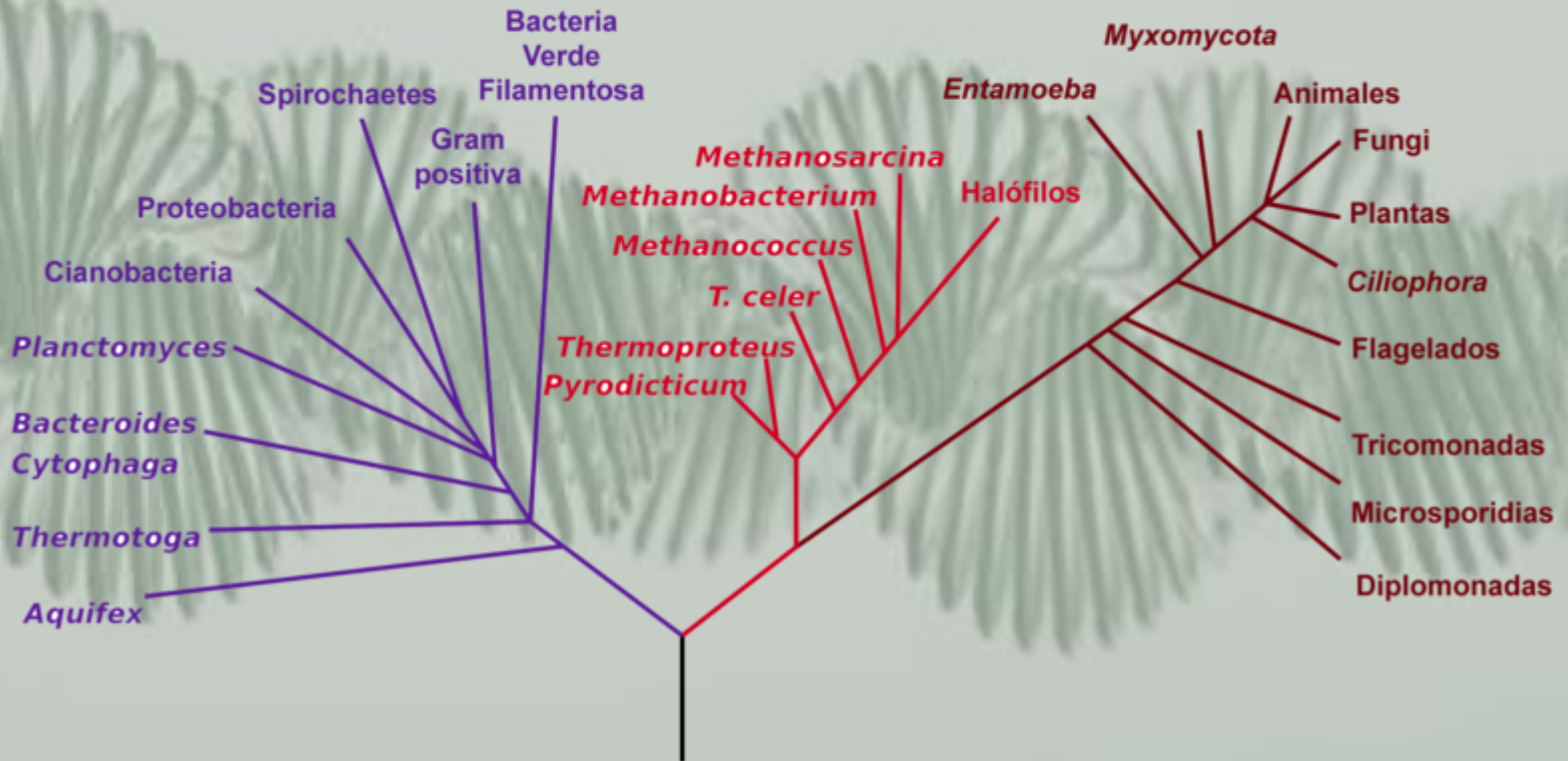


# Árbol Filogenético de la Vida

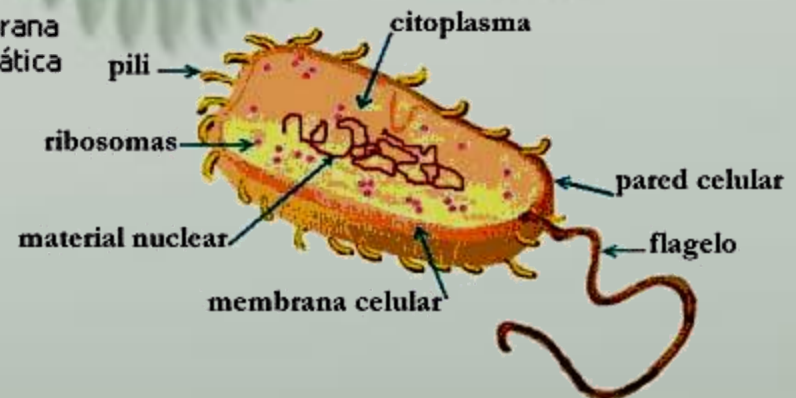
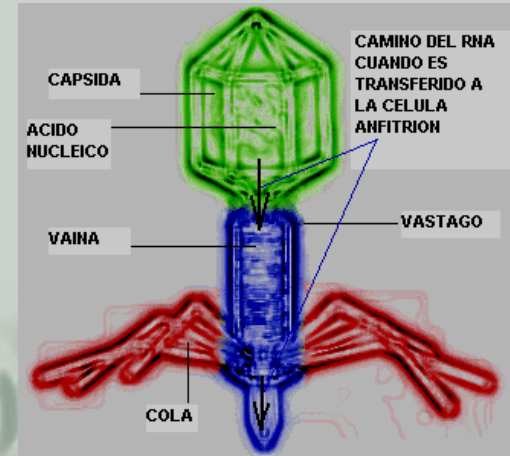
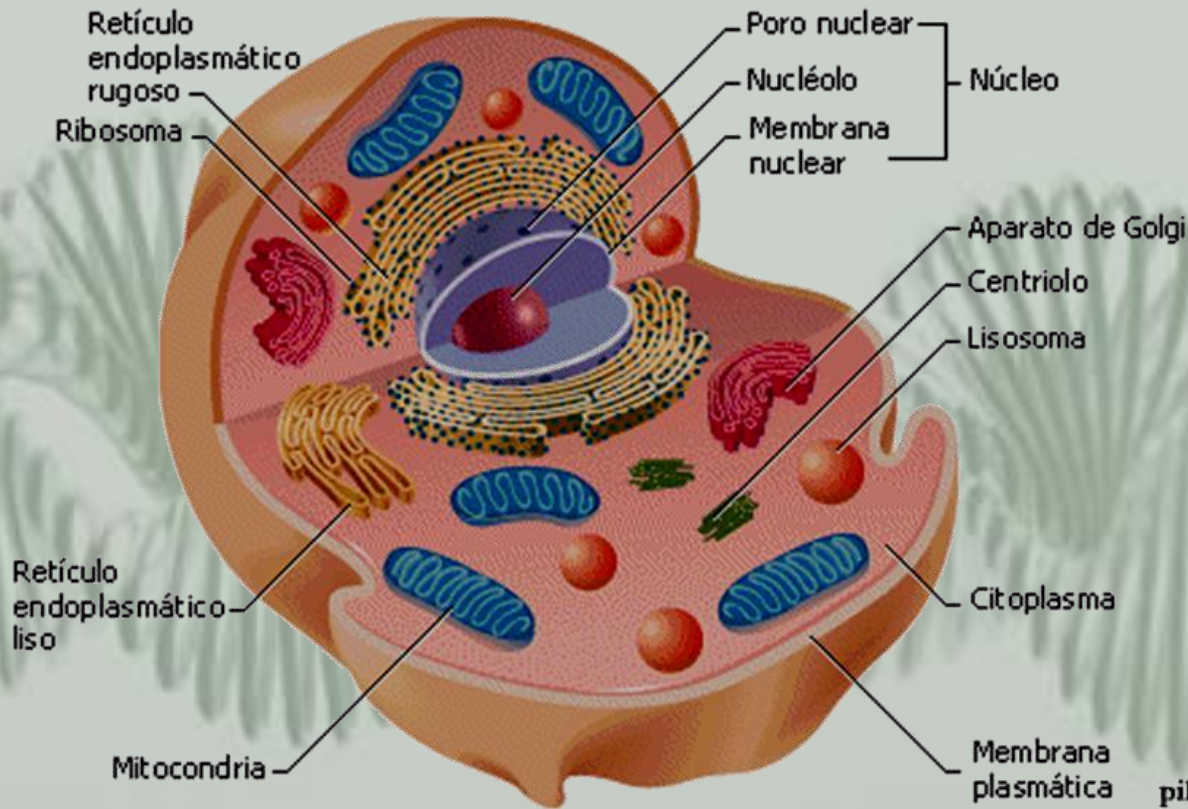
**Bacteria**

**Archaea**

**Eukarya**

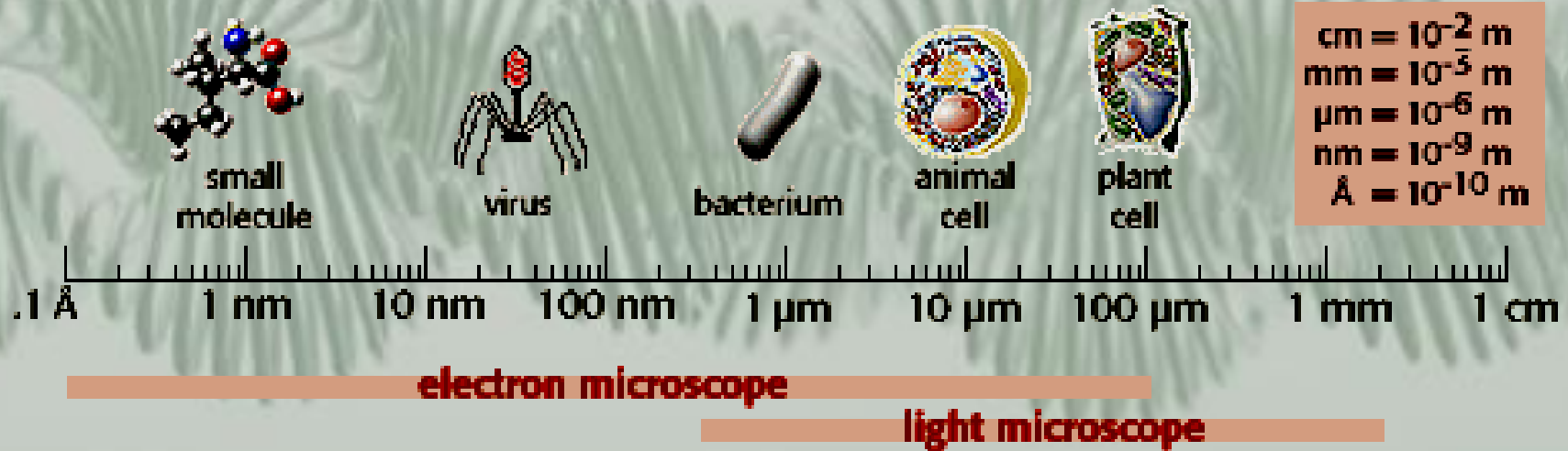


# Células



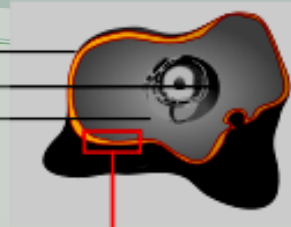
# El Micro y Nano mundo

Relative sizes of cells and their components

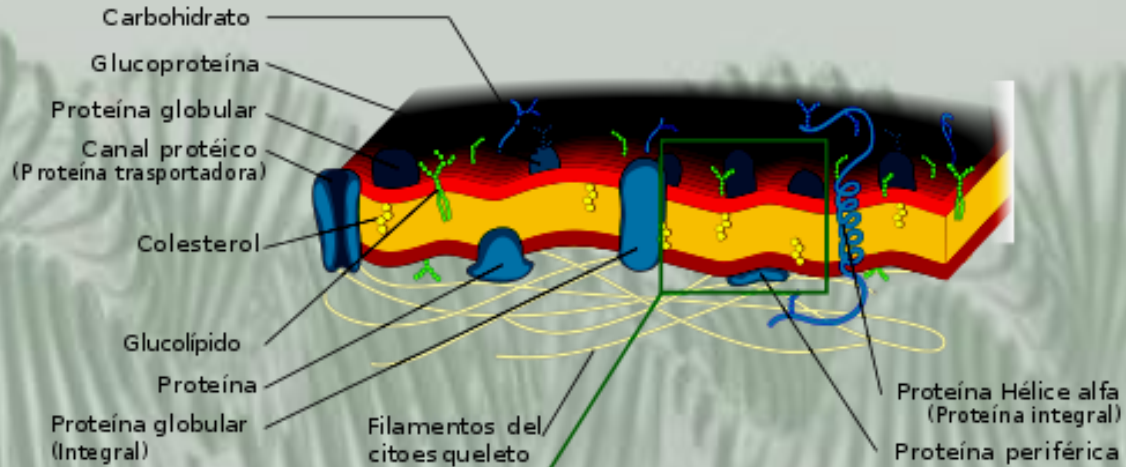


# Célula

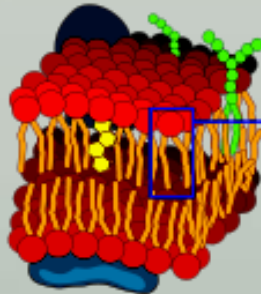
Fluido extracelular  
Núcleo  
Citoplasma



## Membrana celular



## Bicapa lipídica



## Fosfolípido (Fosfatidilcolina)

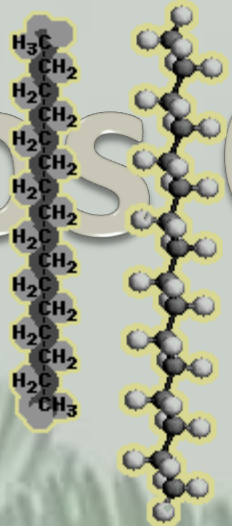


Cabeza hidrofílica

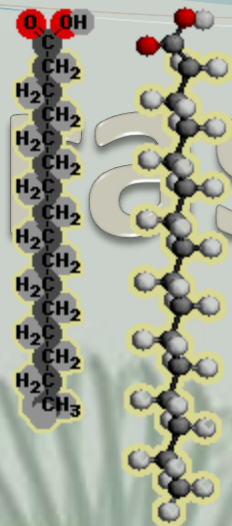
Cola hidrofóbica

# Ácidos Graxos

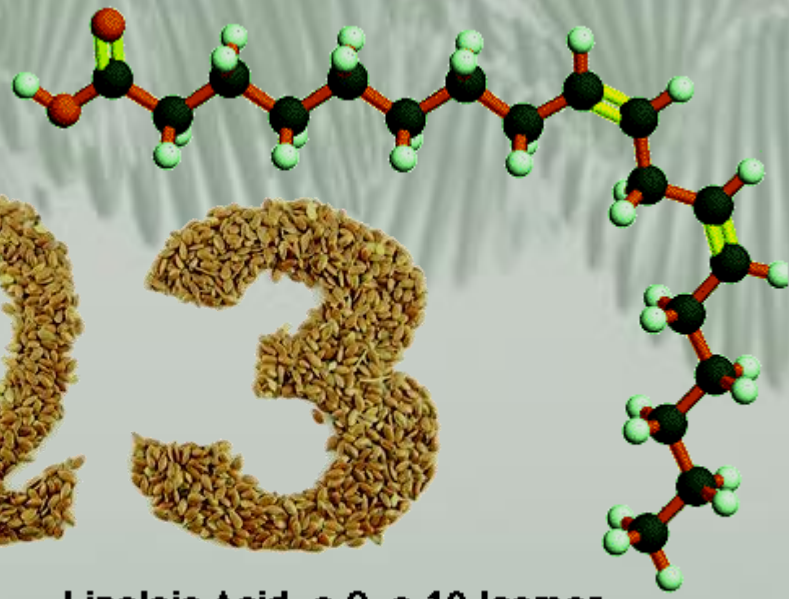
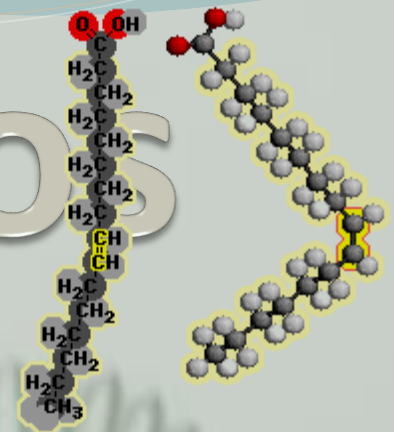
Carbohidrato



Ácido graso saturado

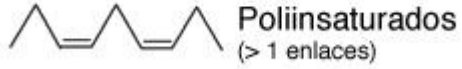
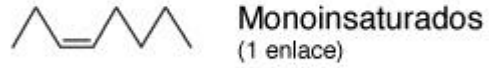


Ácido graso no saturado

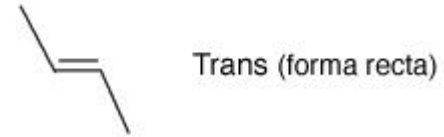
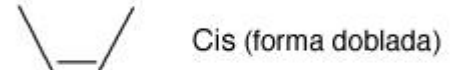


Linoleic Acid- c-9, c-12 Isomer

**TIPOS DE ÁCIDOS GRASOS**  
(de acuerdo al número de dobles enlaces)

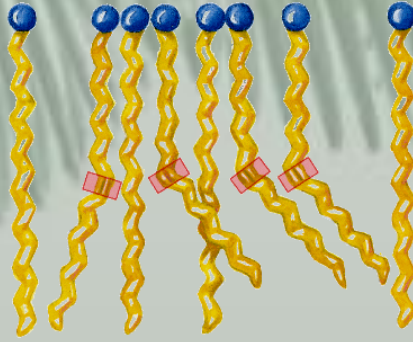


**TIPOS DE ÁCIDOS GRASOS INSATURADOS**  
(de acuerdo a la estructura del doble enlace)



Saturated fatty acids

(c)

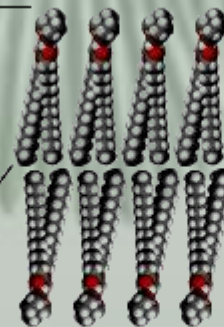


Mixture of saturated and unsaturated fatty acids

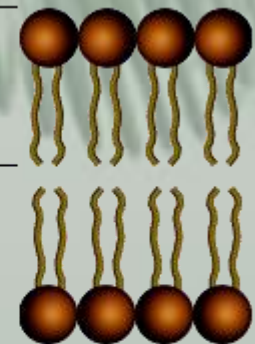
(d)



Molécula fosfolípida

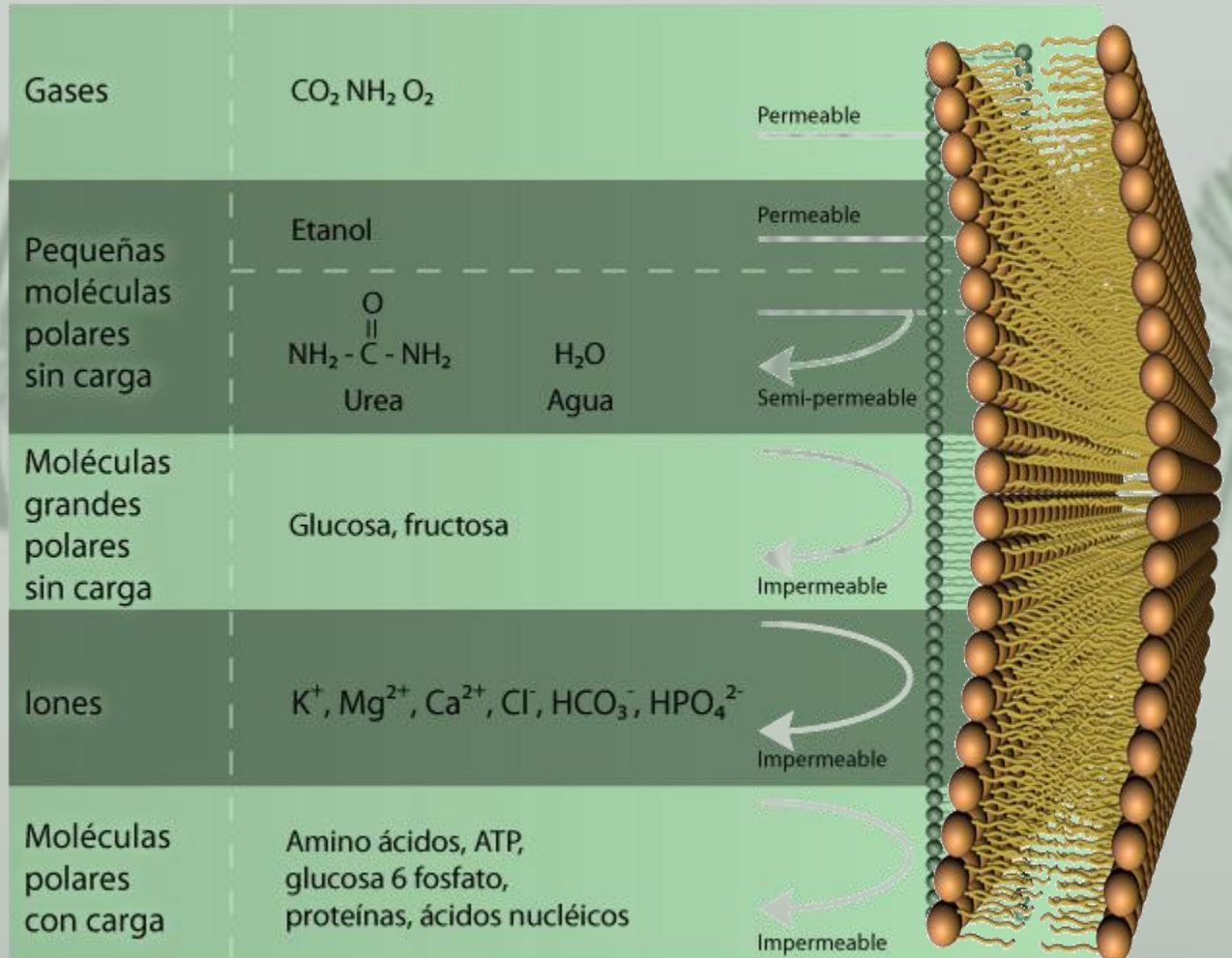
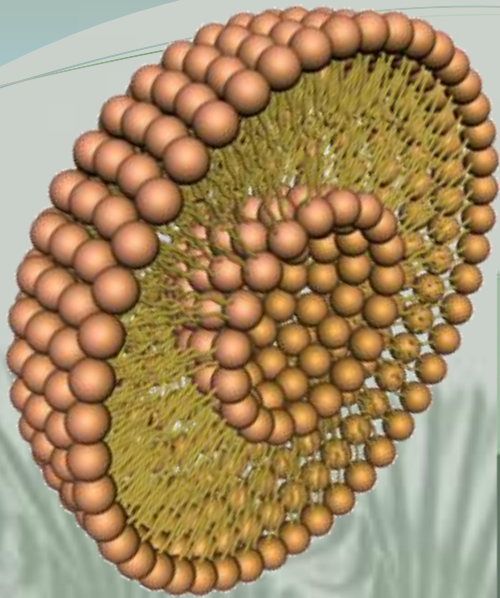


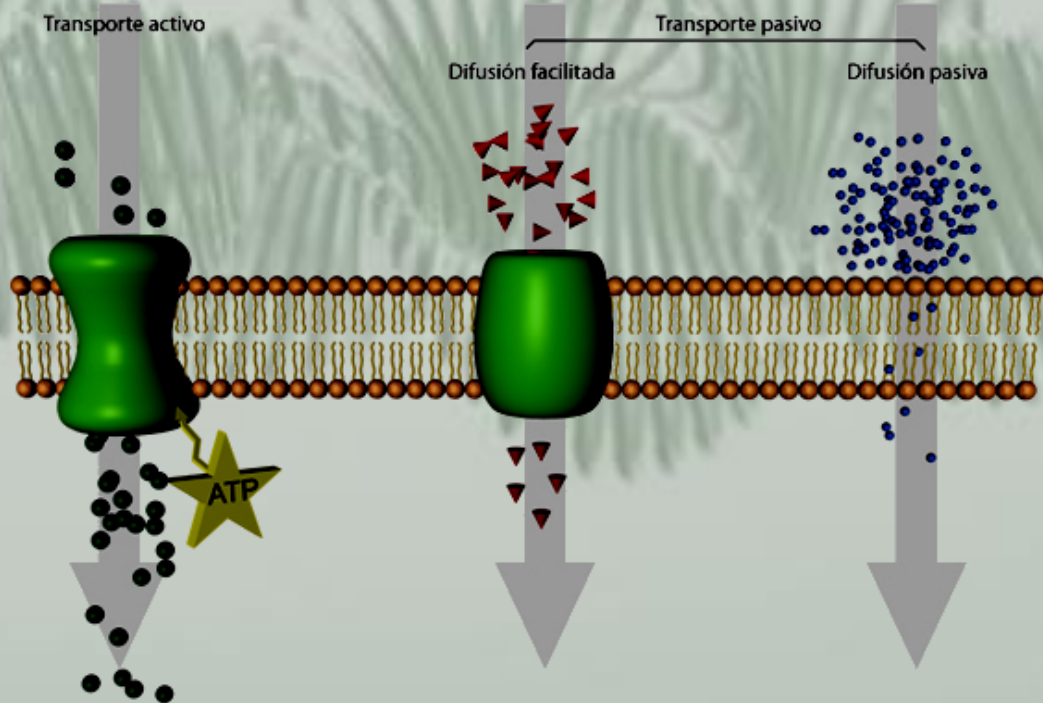
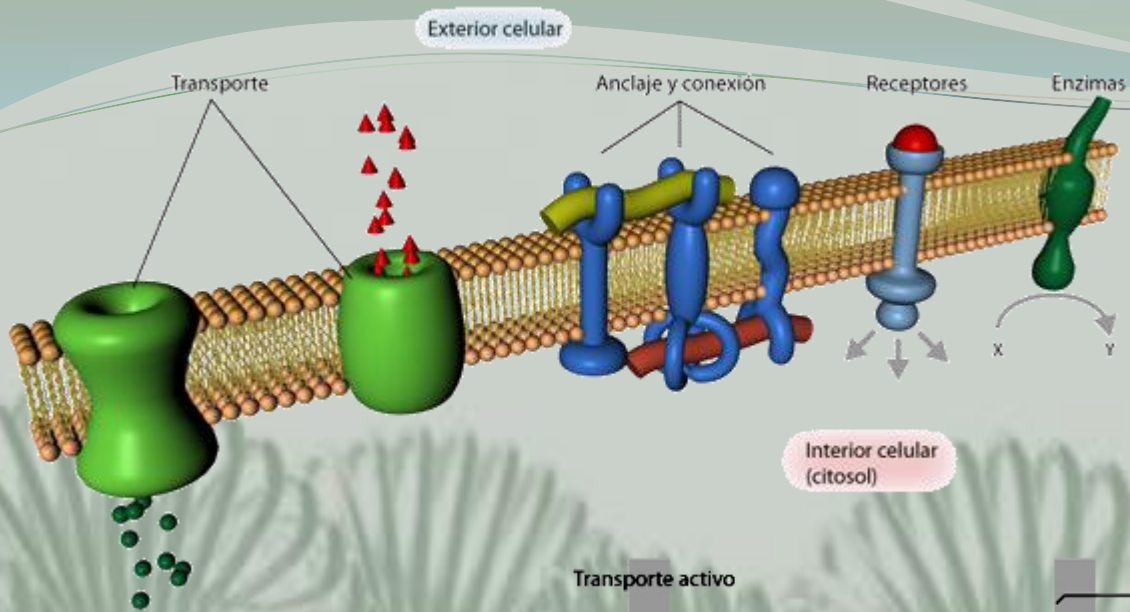
Bicapa lipídica

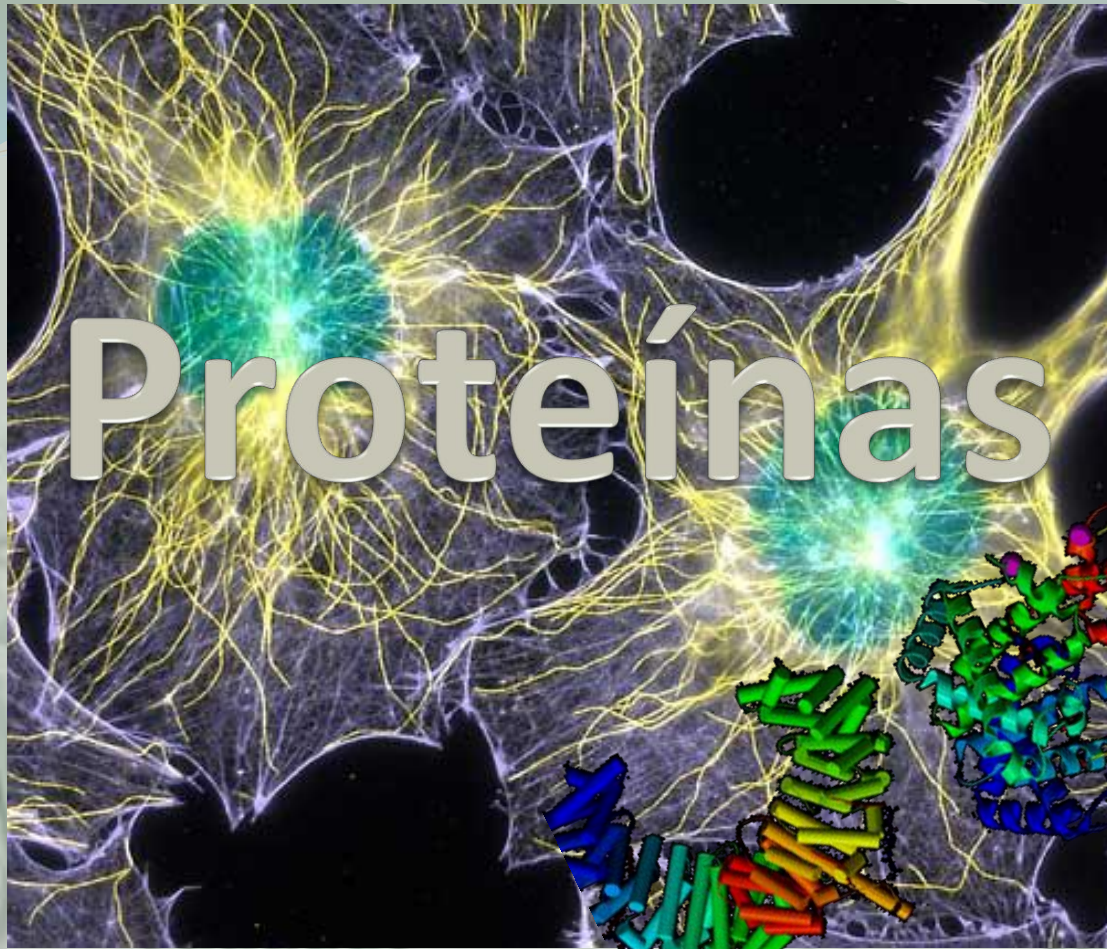


Bicapa lipídica en la representación de una membrana

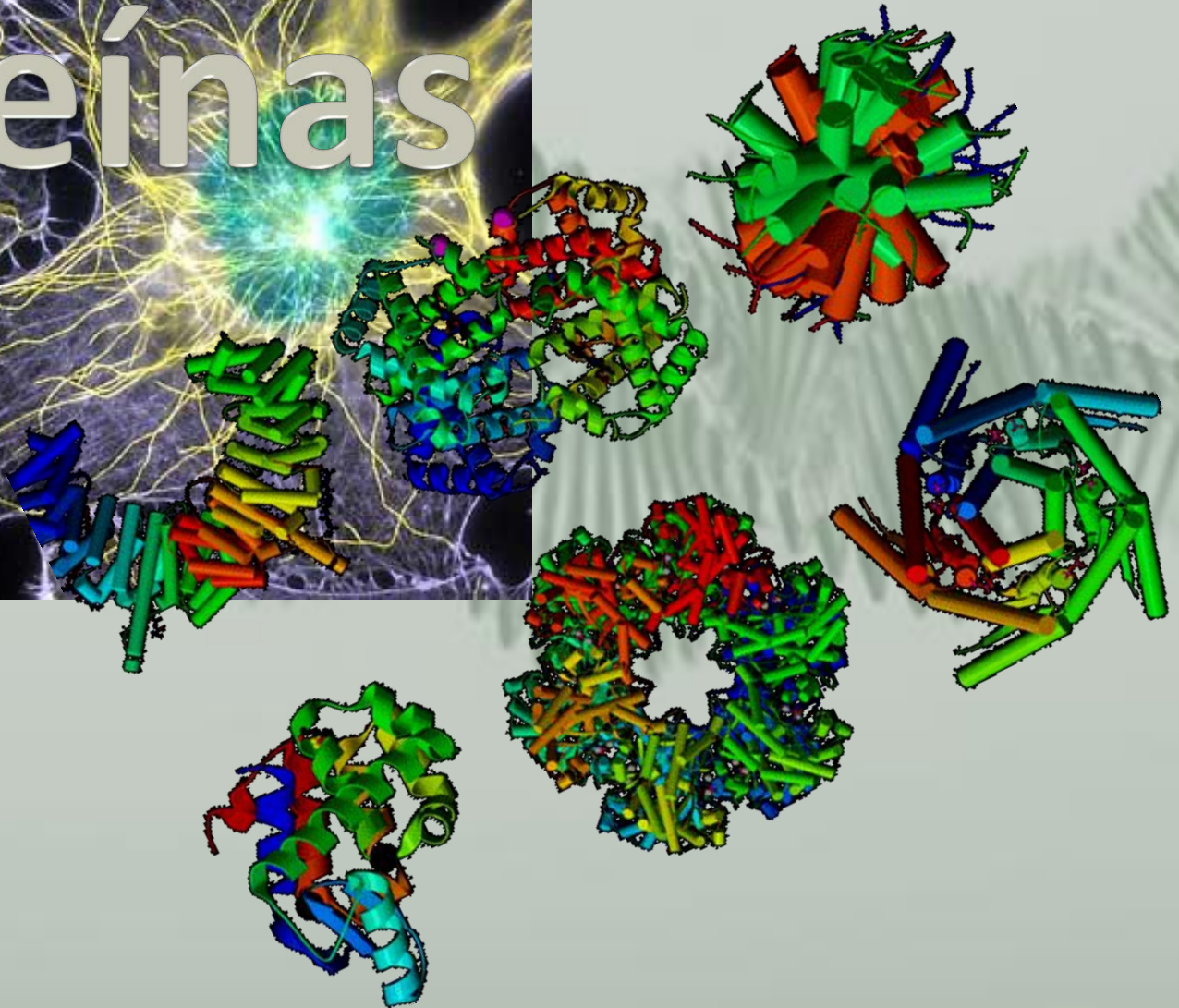




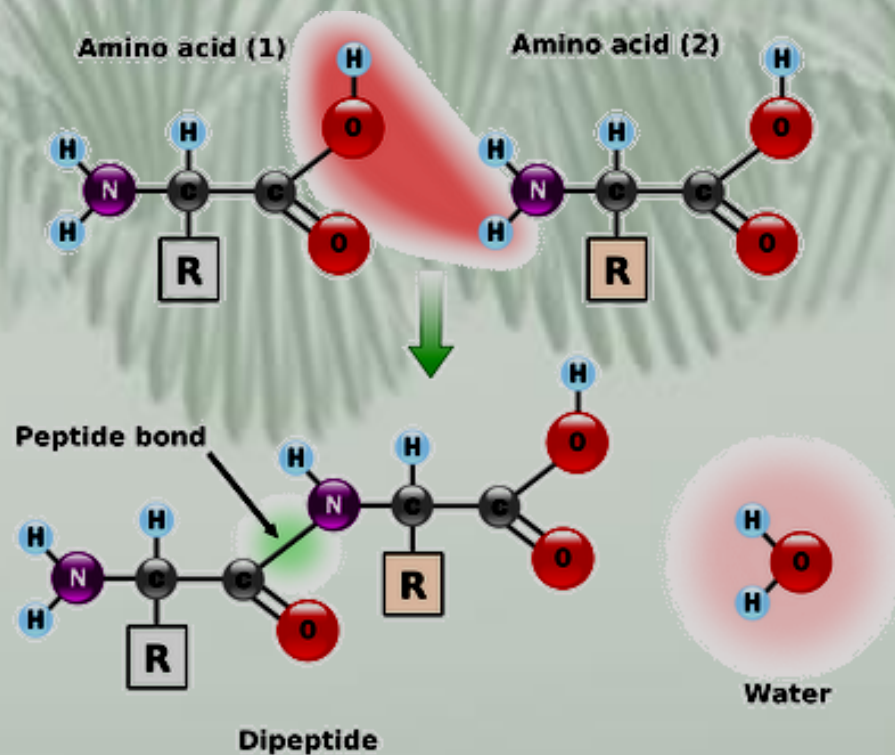
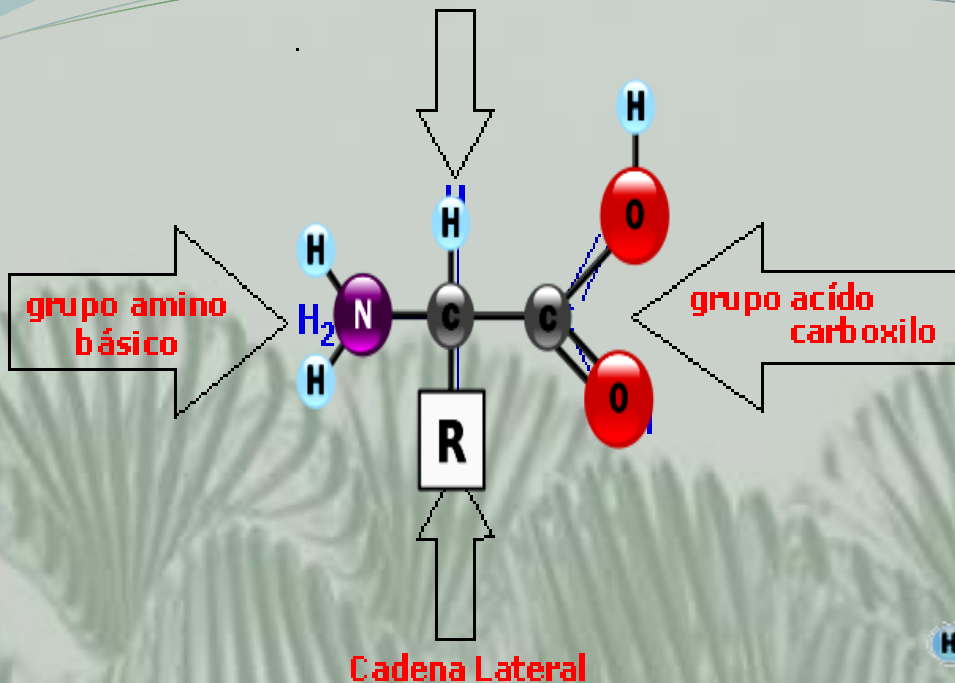




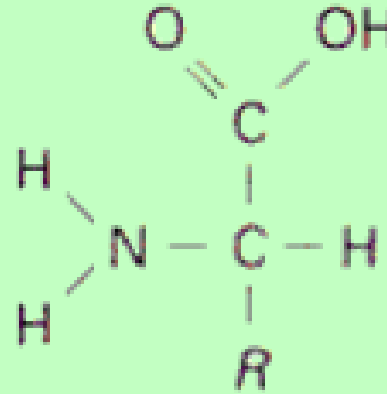
# Proteínas



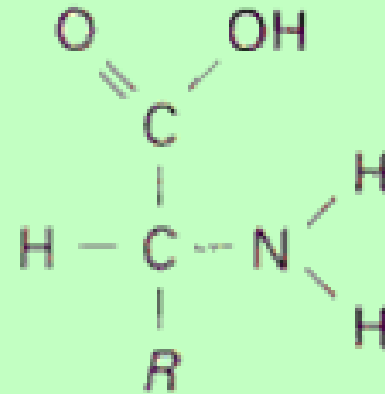
átomo de hidrogeno



# Configuración *L* y *D* de los aminoácidos

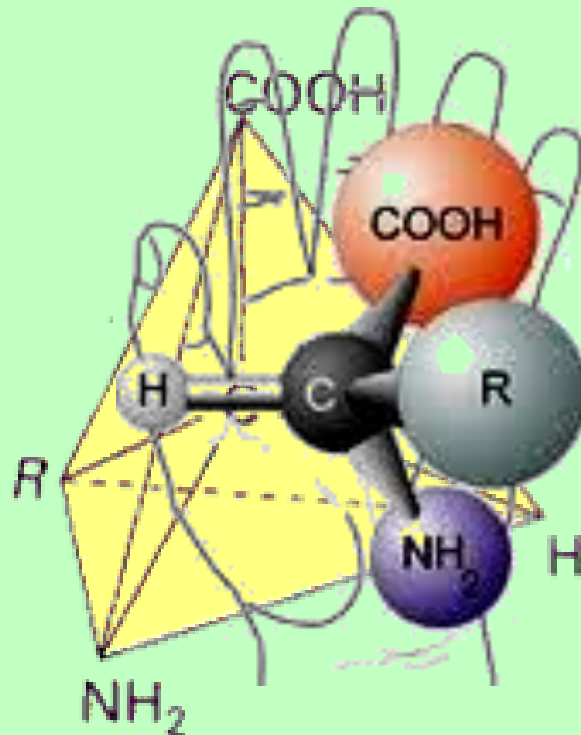


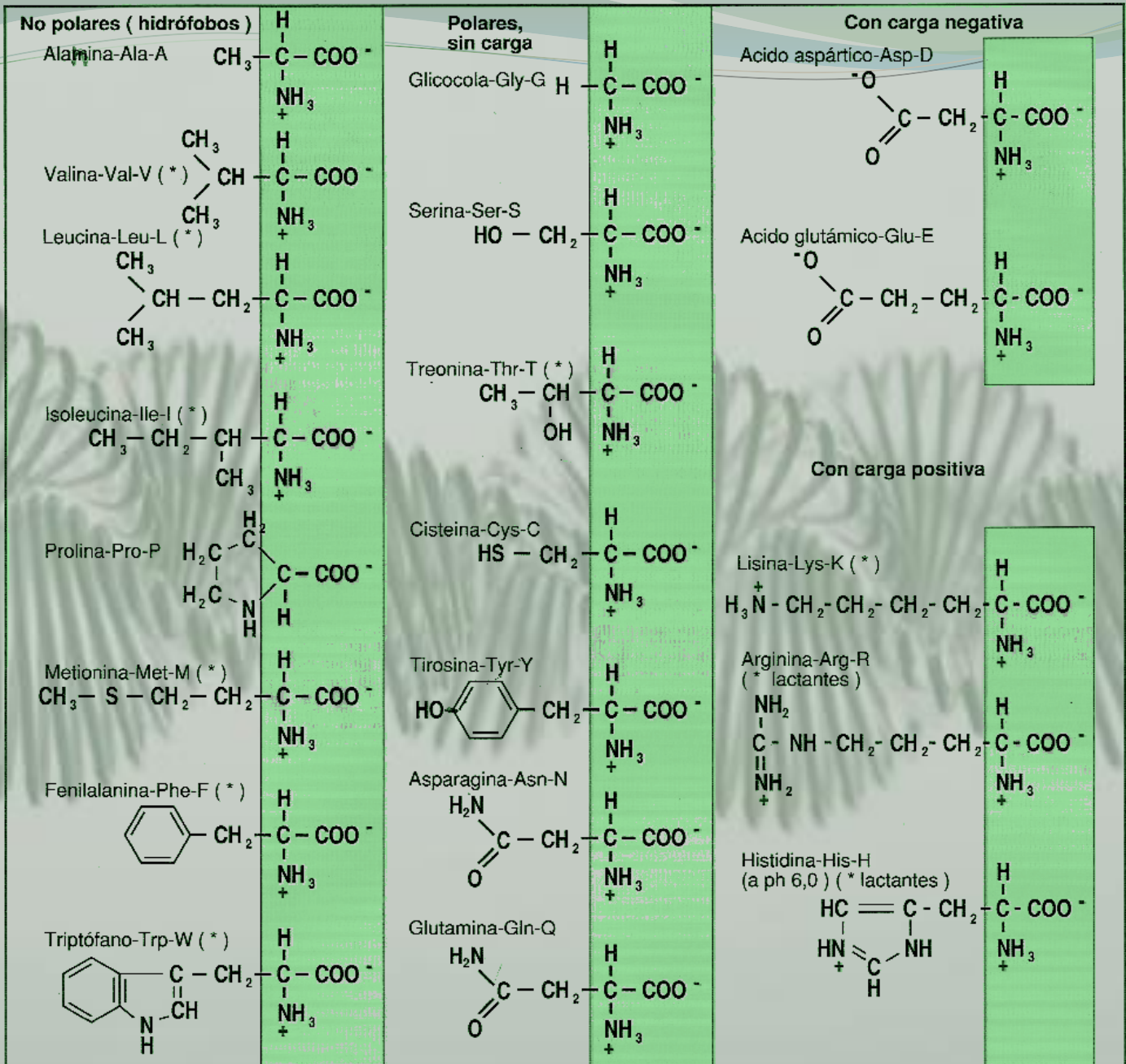
Configuración *L*

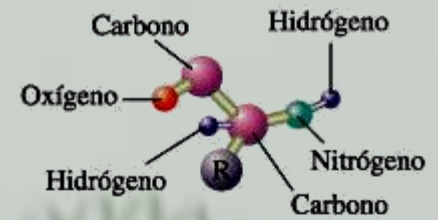
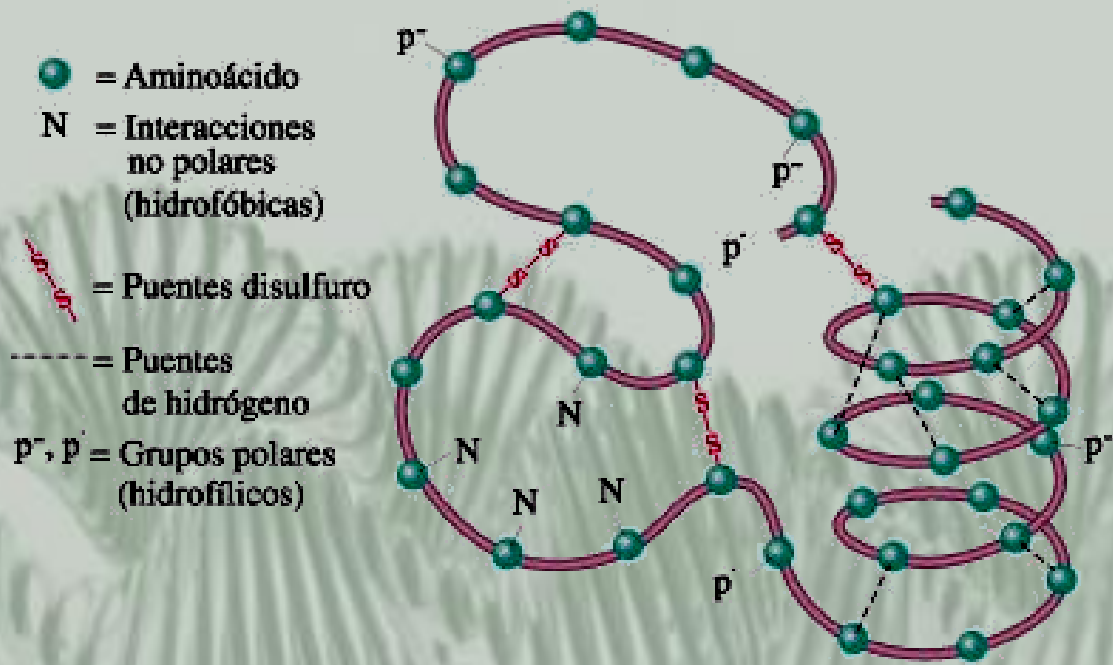


Configuración *D*

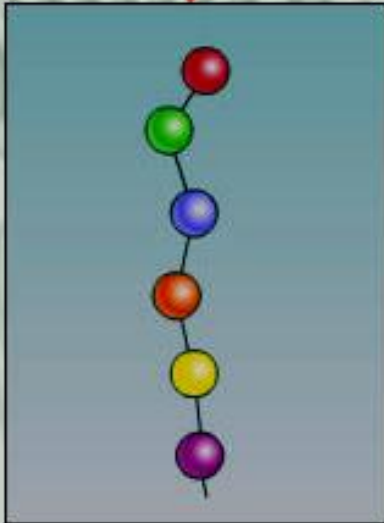
Biología 2 (Santillana)



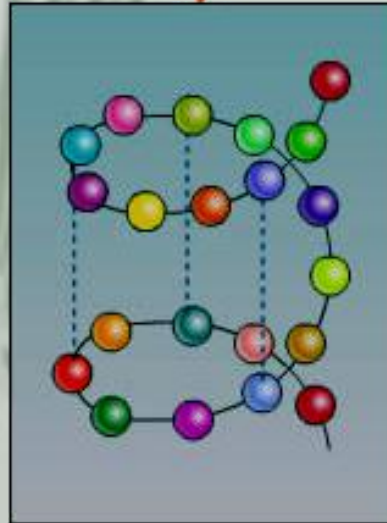




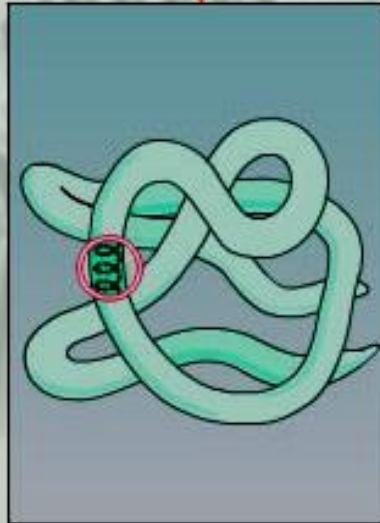
Estructura  
Primaria



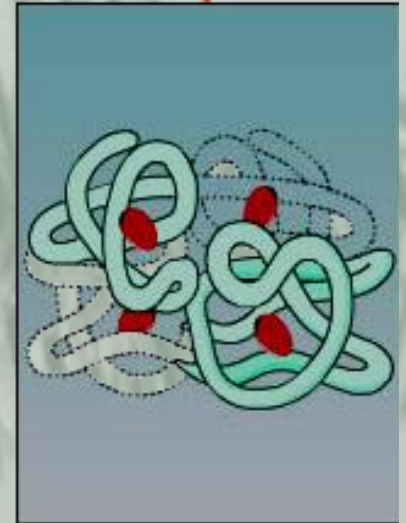
Estructura  
Secundaria



Estructura  
Terciaria



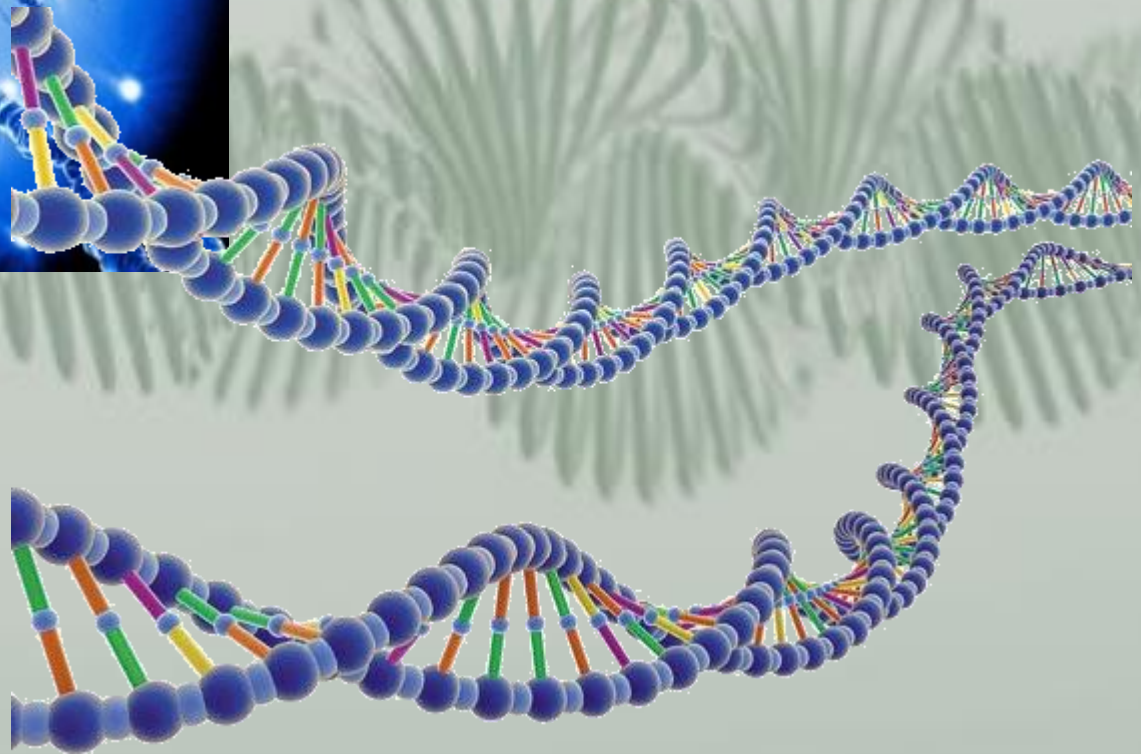
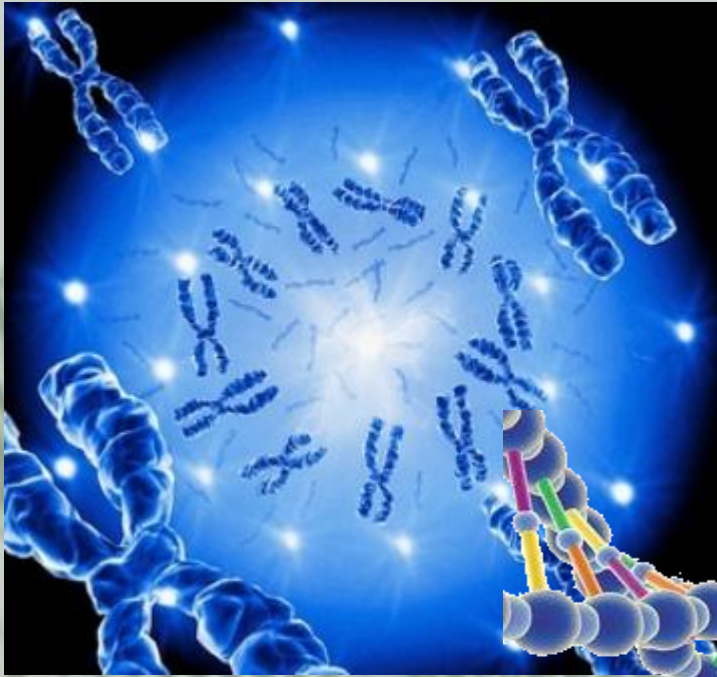
Estructura  
Cuaternaria

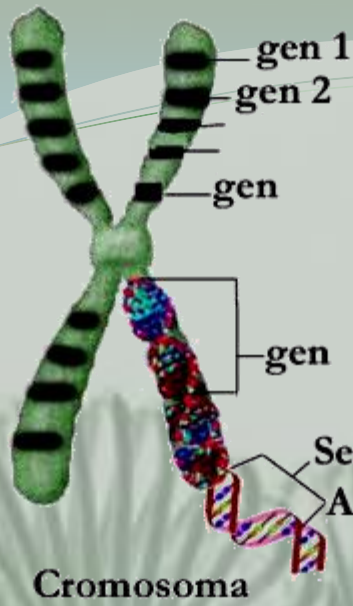




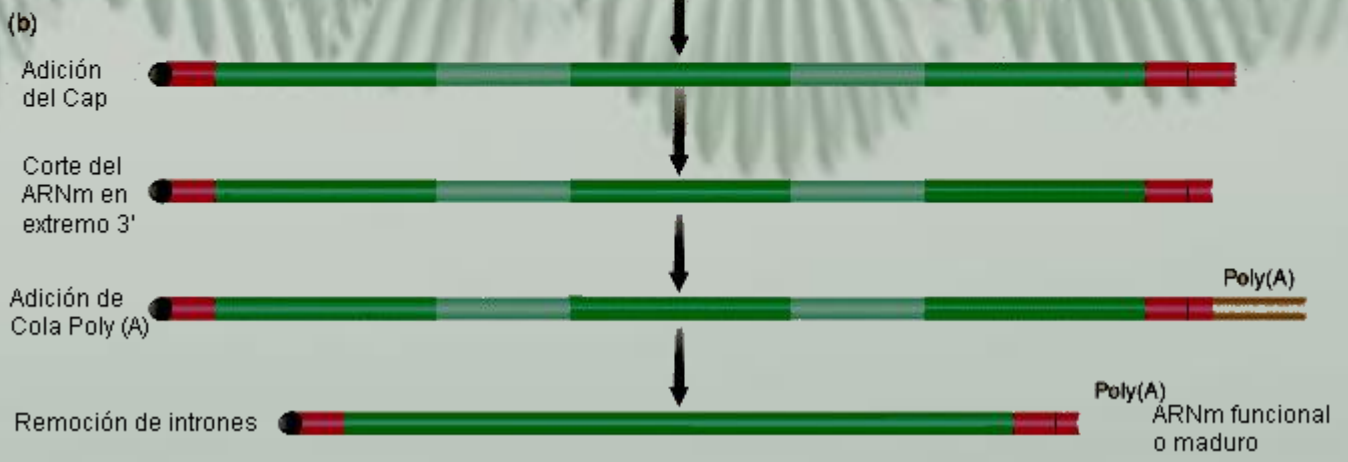
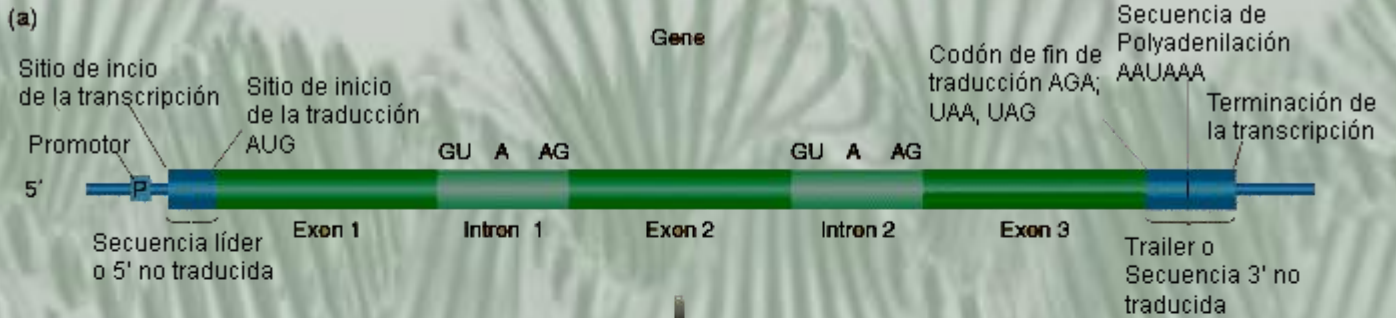


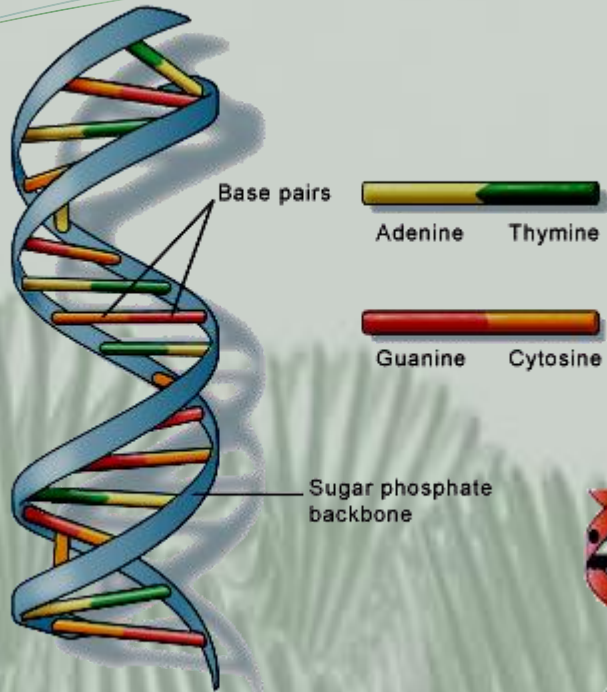
# ADN



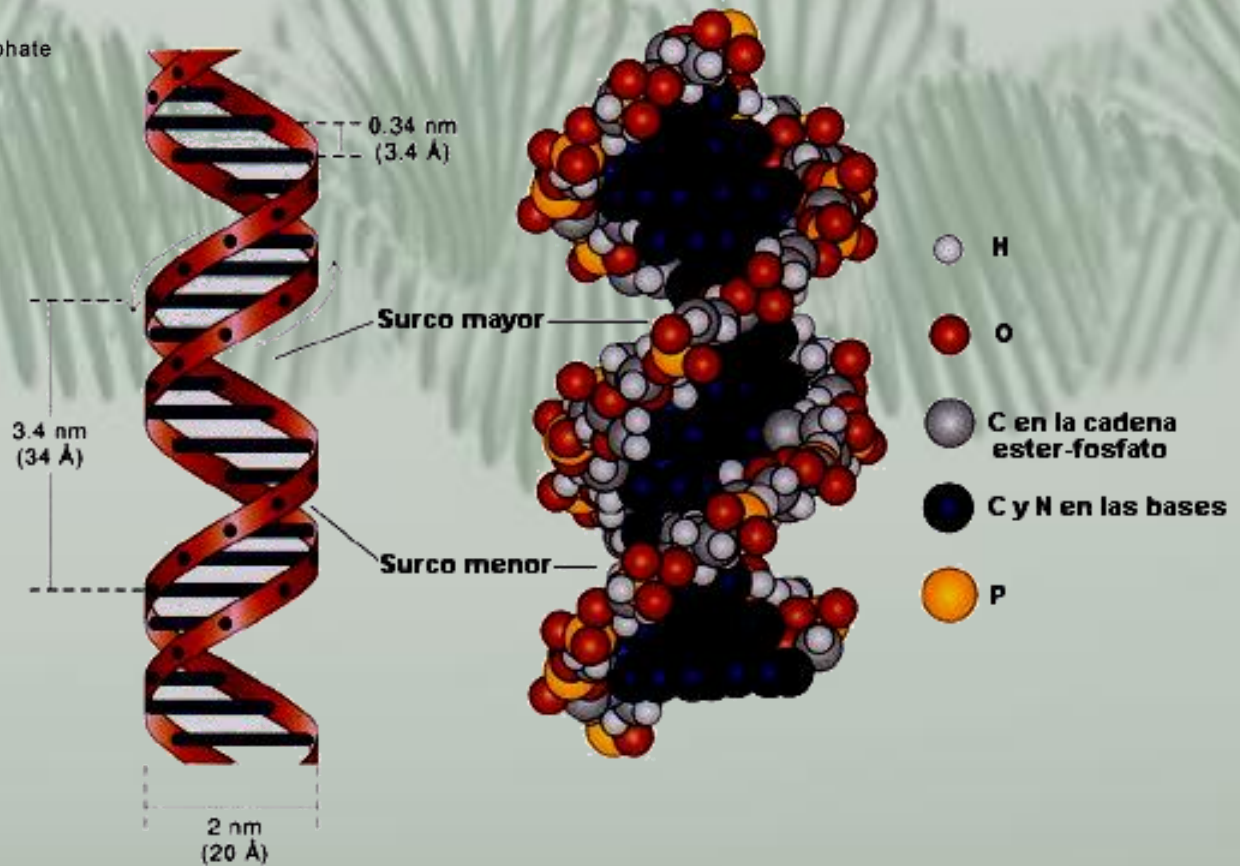


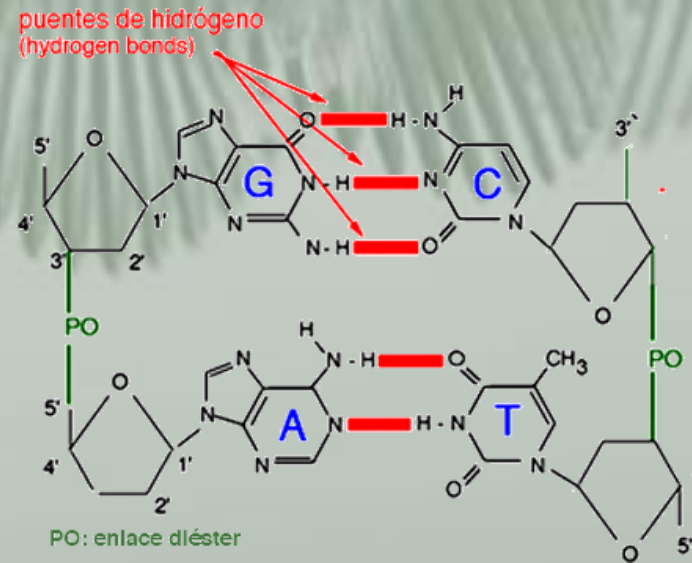
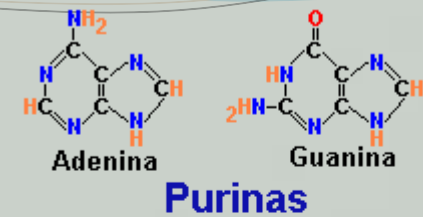
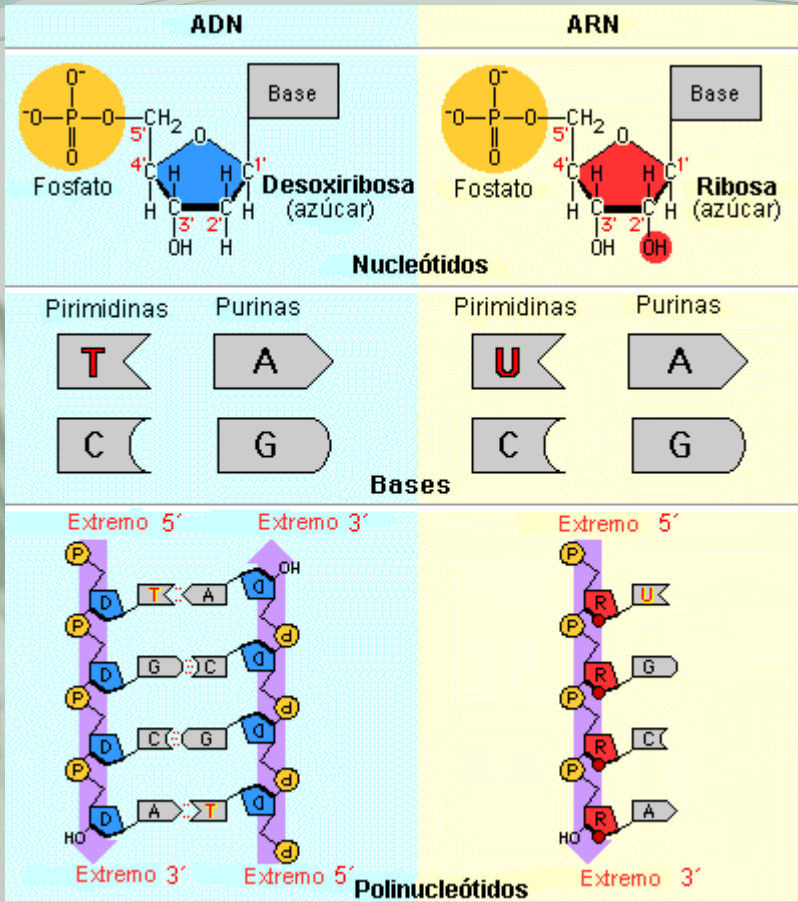
Cromosoma

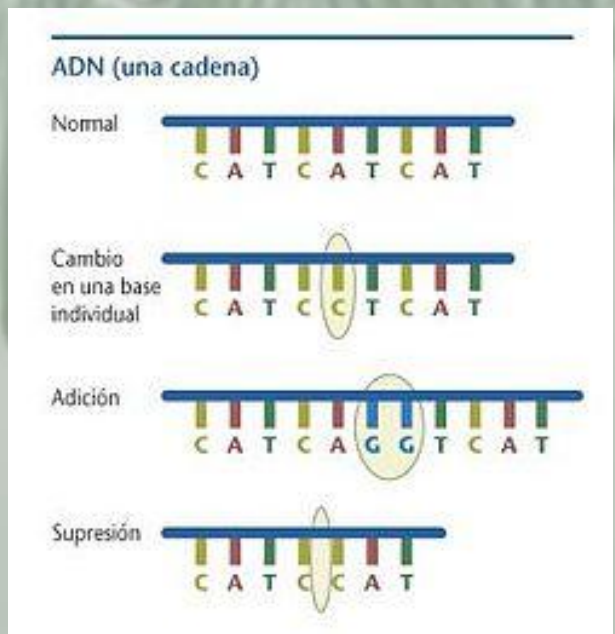
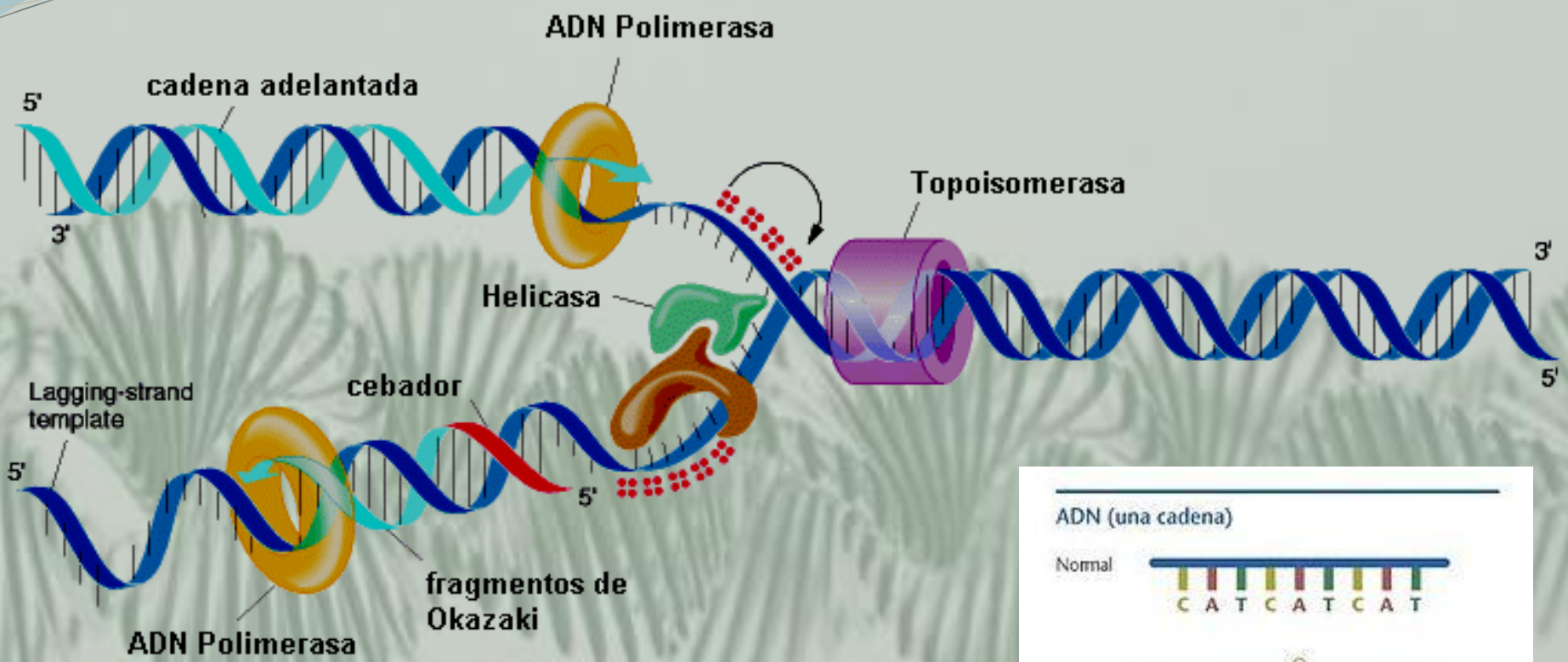


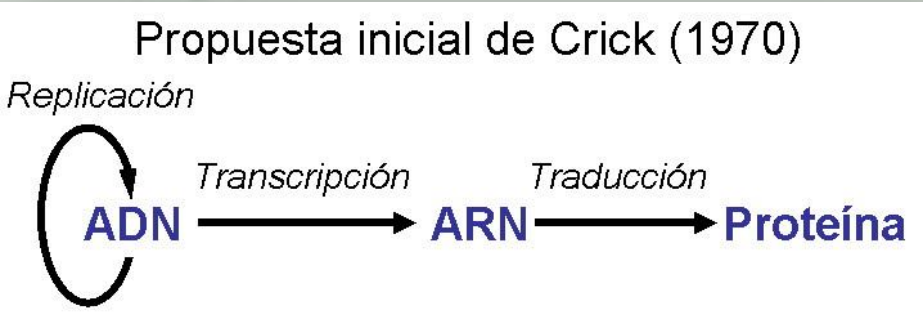
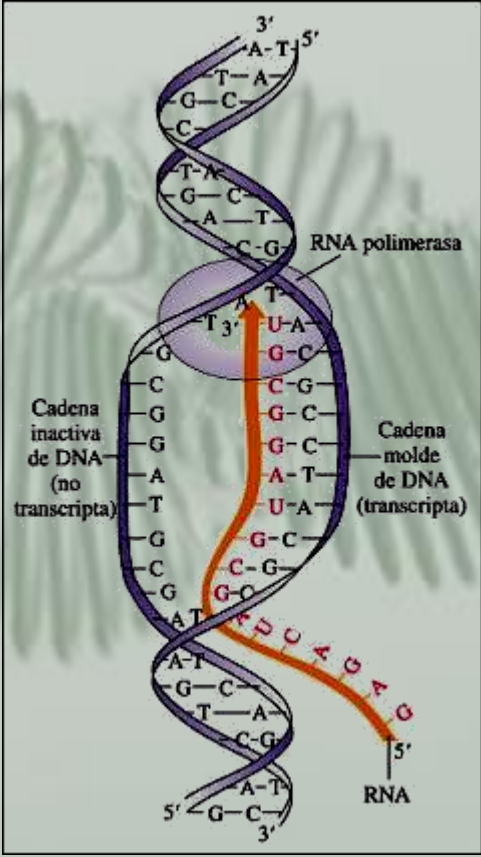
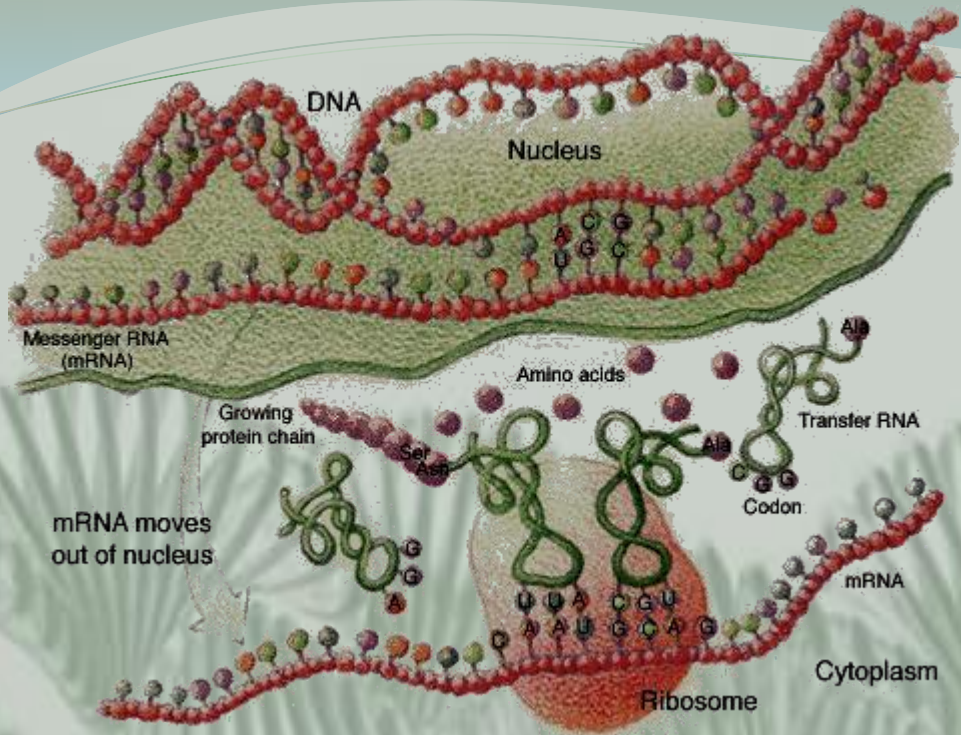


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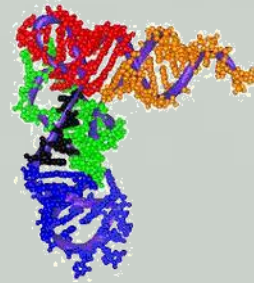
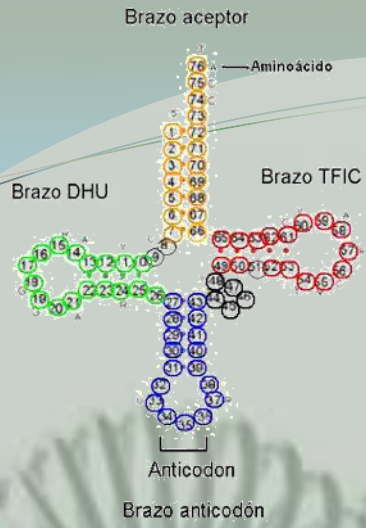






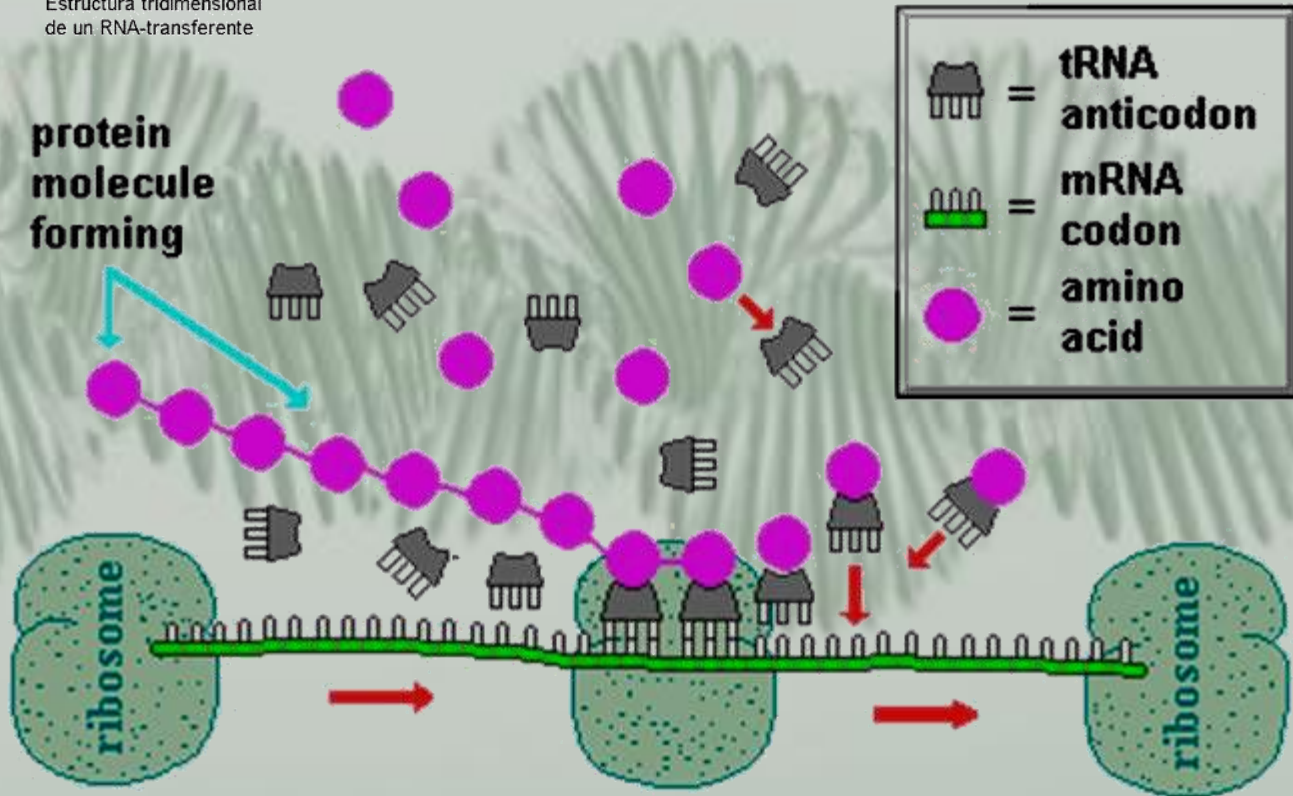
1 <sup>a</sup>	2 <sup>a</sup> BASE								3 <sup>a</sup>	
	U		C		A		G			
U	UUU	Phe	UCU	Ser	UAU	Tyr	UGU	Cys	U	
	UUC		UCC		UAC		UGC		C	
	UUA	Leu	UCA		UAA	Stop	UGA	Stop	A	
	UUG		UCG		UAG		UGG	Tyr	G	
C	CUU		Leu	CCU	Pro	CAU	His	CGU	Arg	U
	CUC			CCC		CAC		CGC		C
	CUA	CCA		CAA		CGA	Gln	CGG		A
	CUG	CCG		CAG		G				
A	AUU	Ile	ACU	Thr	AAU	Asn	AGU	Ser	U	
	AUC		ACC		AAC		AGC		C	
	AUA	ACA	AAA		AGA	Lys	AGG	A		
	AUG	Met	ACG		AAG			G		
G	GUU	Val	GCU	Ala	GAU	Asp	GGU	Gly	U	
	GUC		GCC		GAC		GGC		C	
	GUA		GCA		GAA	GGA	Glu		GGG	A
	GUG		GCG		GAG	G				





Estructura tridimensional de un RNA-transferente

protein molecule forming





***Revelado el misterio del calendario maya***

*-¿Por qué termina en 2012?*

*-Me quedé sin más espacio en la piedra.*