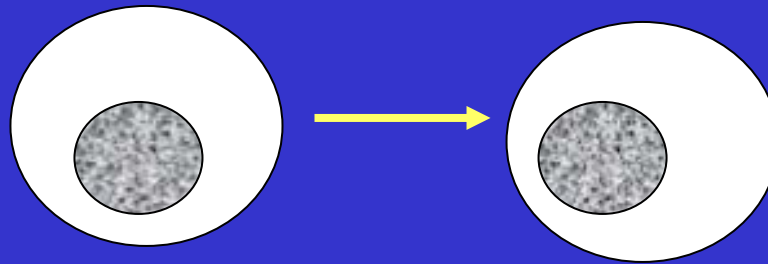


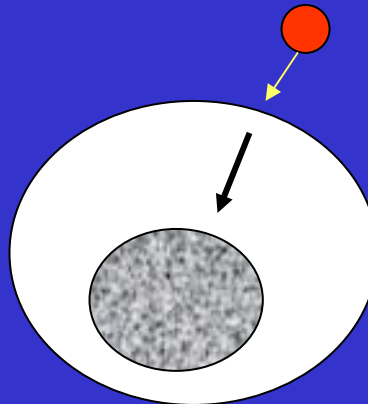
Señalización Celular I

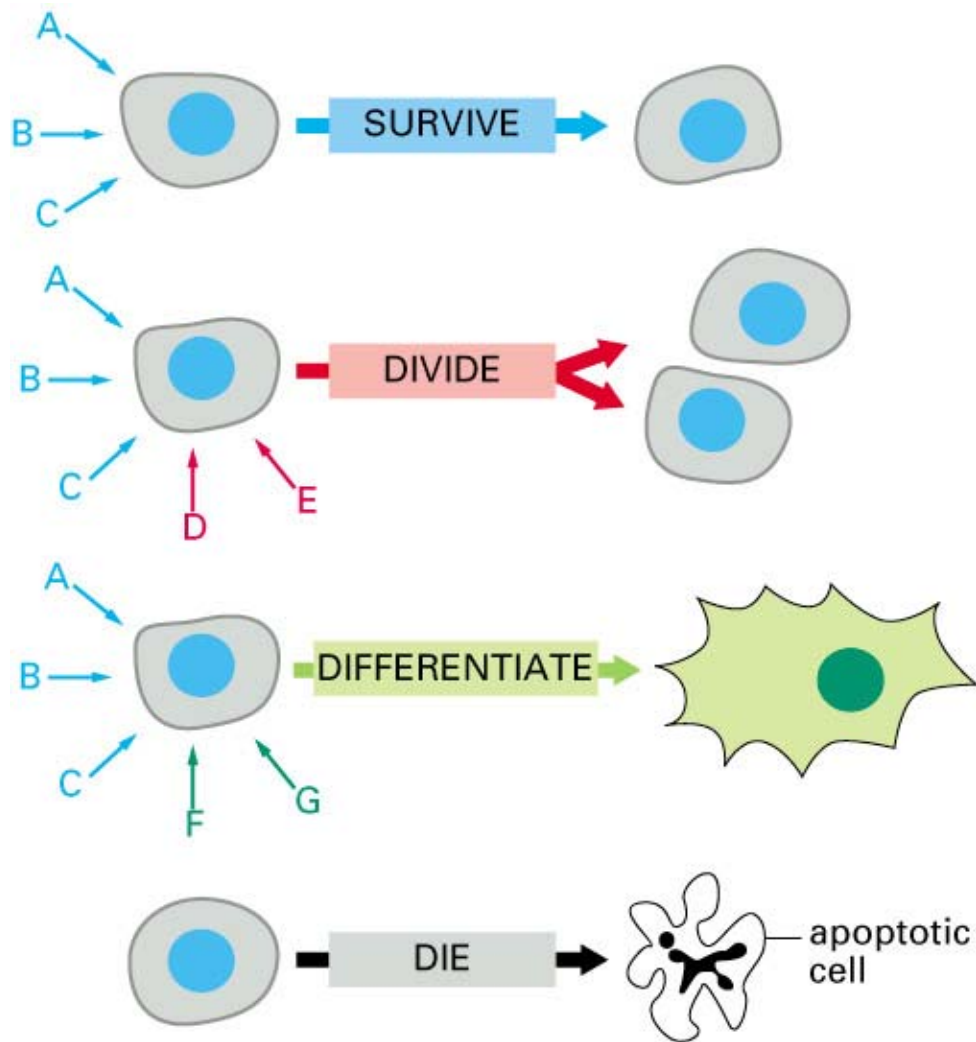
Patricio Smith F.

- Comunicación intercelular



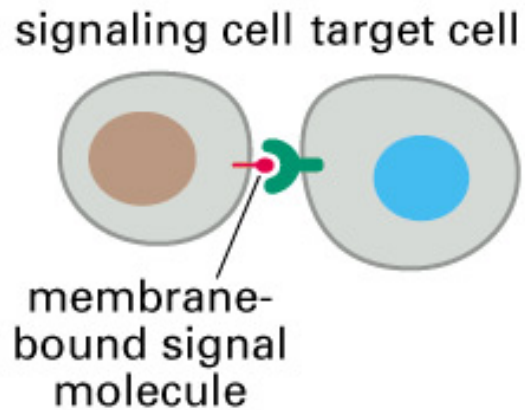
- Comunicación intracelular



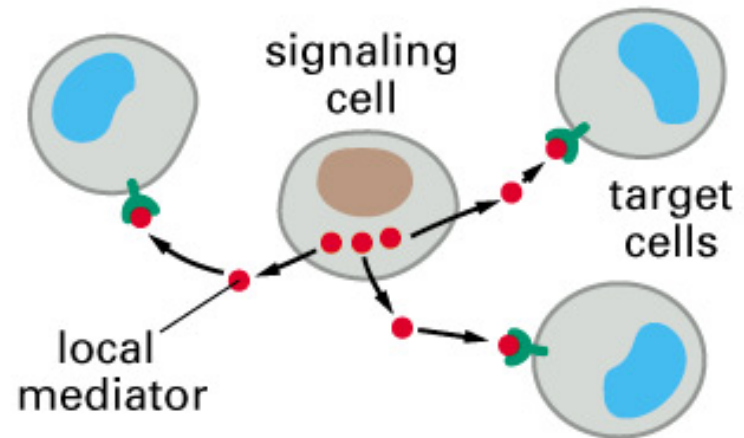


Distancia desde el estímulo a la célula blanco

(A) CONTACT-DEPENDENT

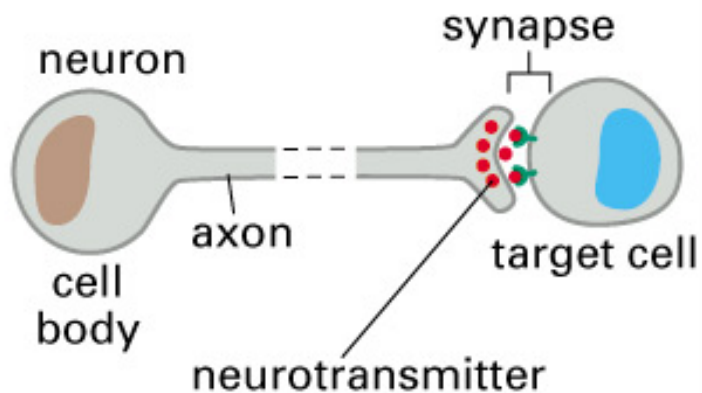


(B) PARACRINE

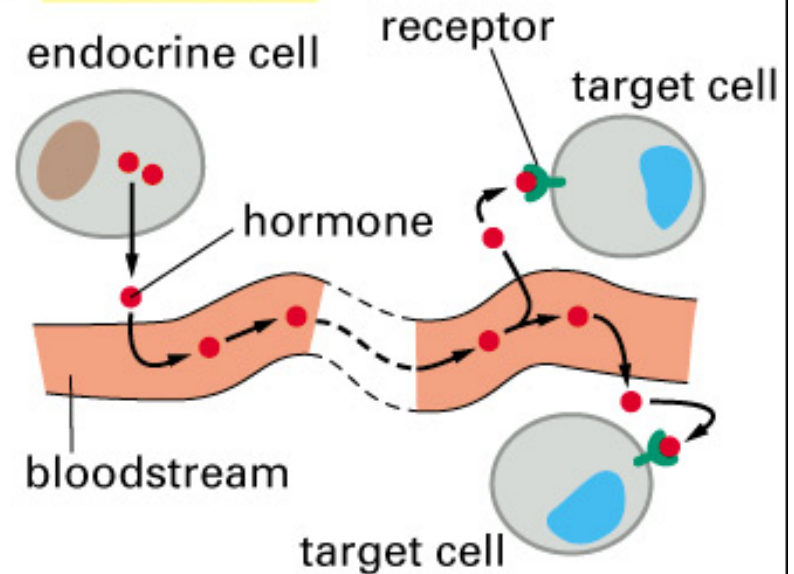


Distancia desde el estímulo a la célula blanco

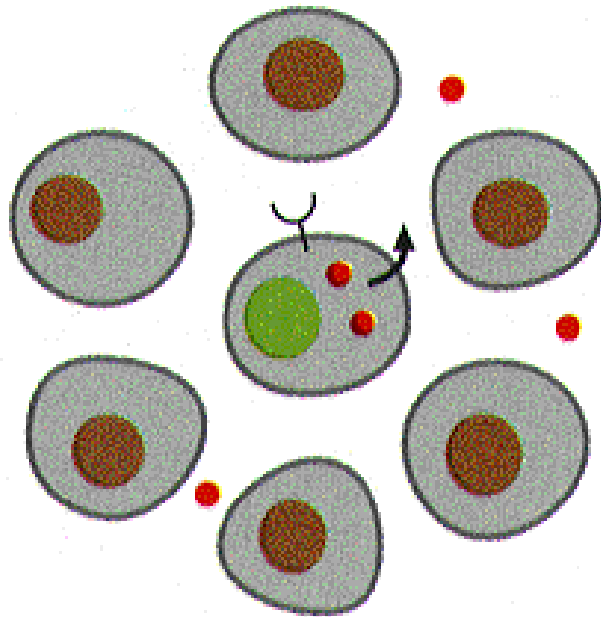
(C) **SYNAPTIC**



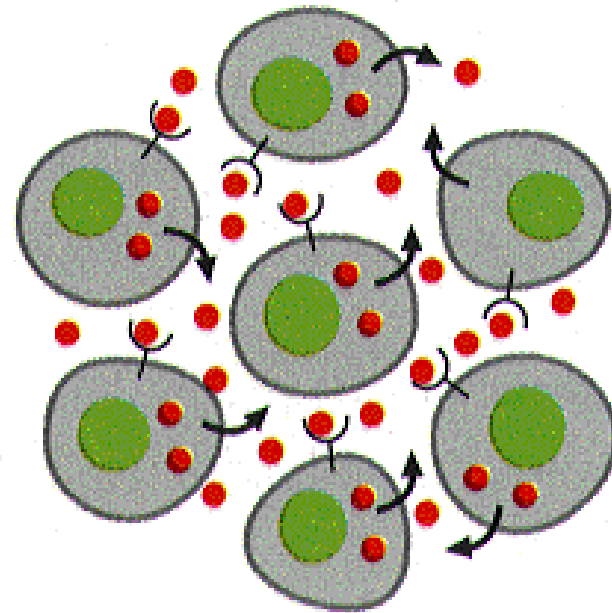
(D) **ENDOCRINE**



Proporción de células estimuladoras y células blanco



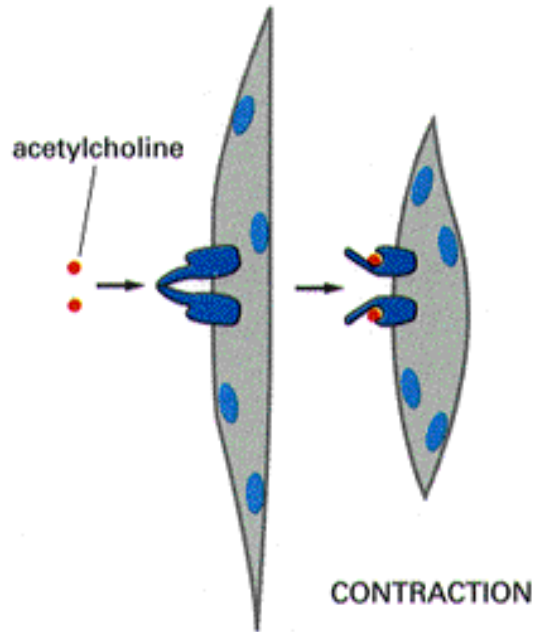
A SINGLE SIGNALING CELL
RECEIVES WEAK AUTOCRINE
SIGNAL



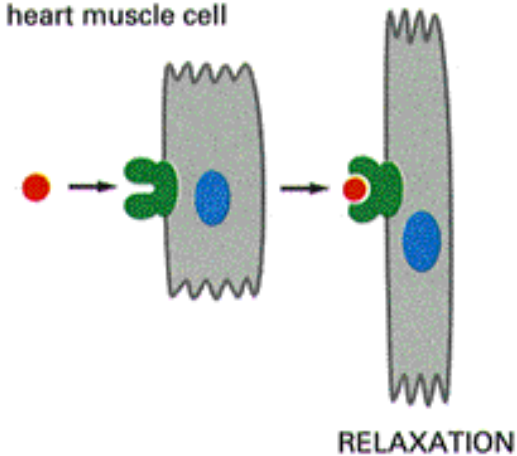
IN A GROUP OF IDENTICAL SIGNALING
CELLS, EACH CELL RECEIVES A STRONG
AUTOCRINE SIGNAL

Son todas las células igualmente sensibles a la misma señal ?

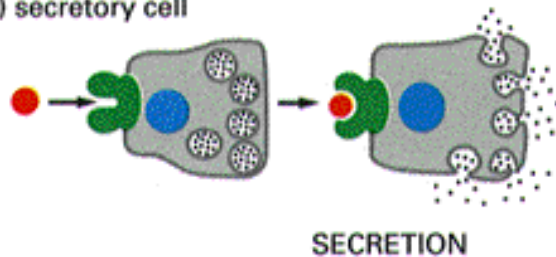
(A) skeletal muscle cell



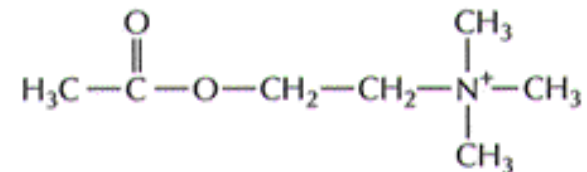
(B) heart muscle cell



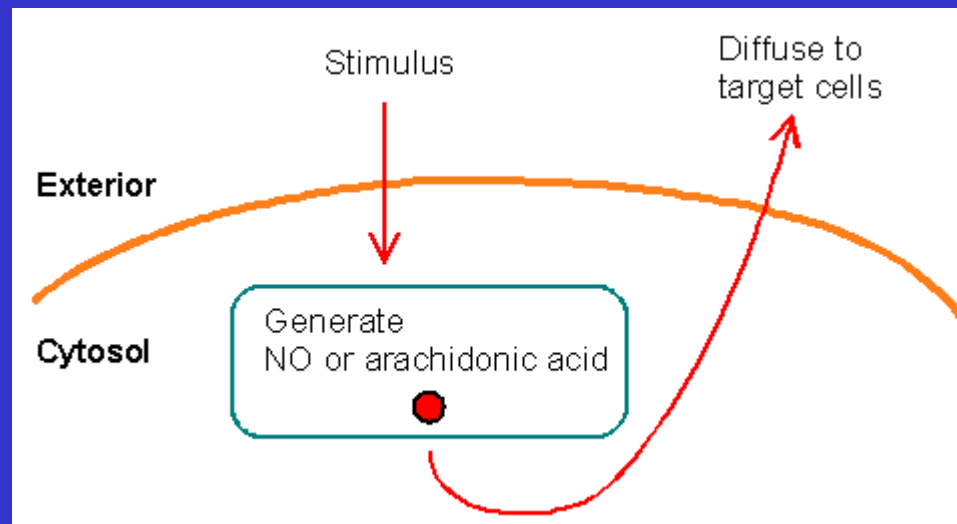
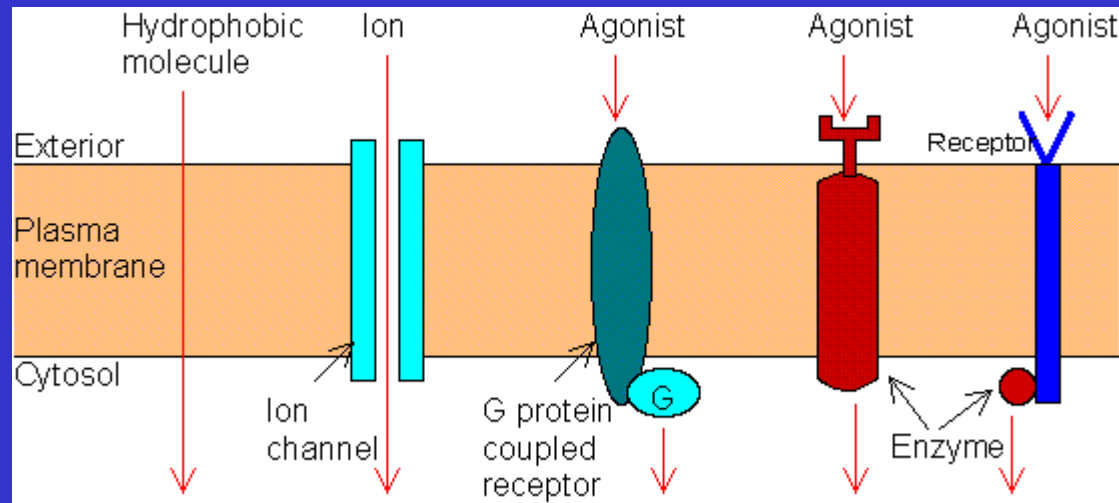
(C) secretory cell

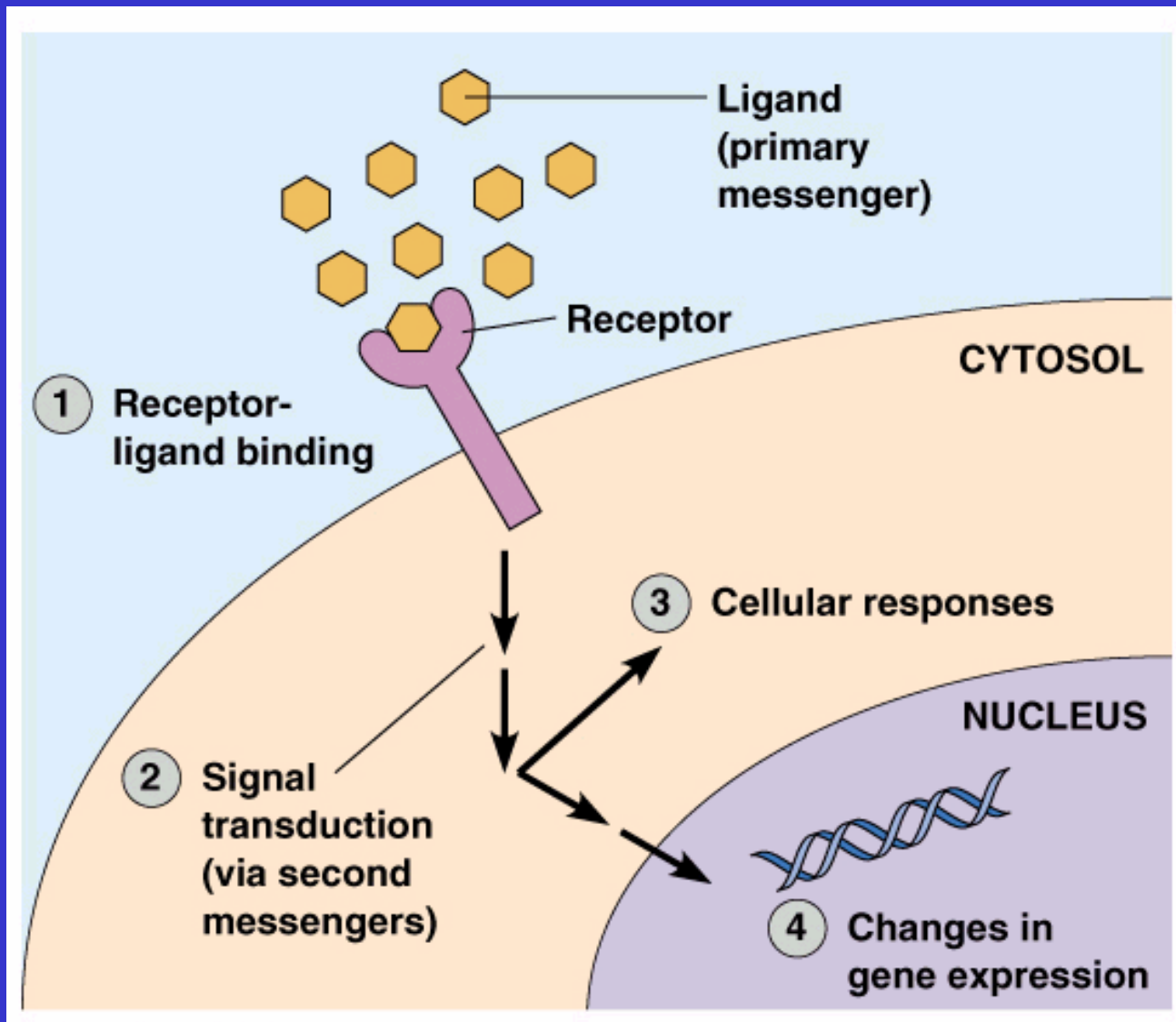


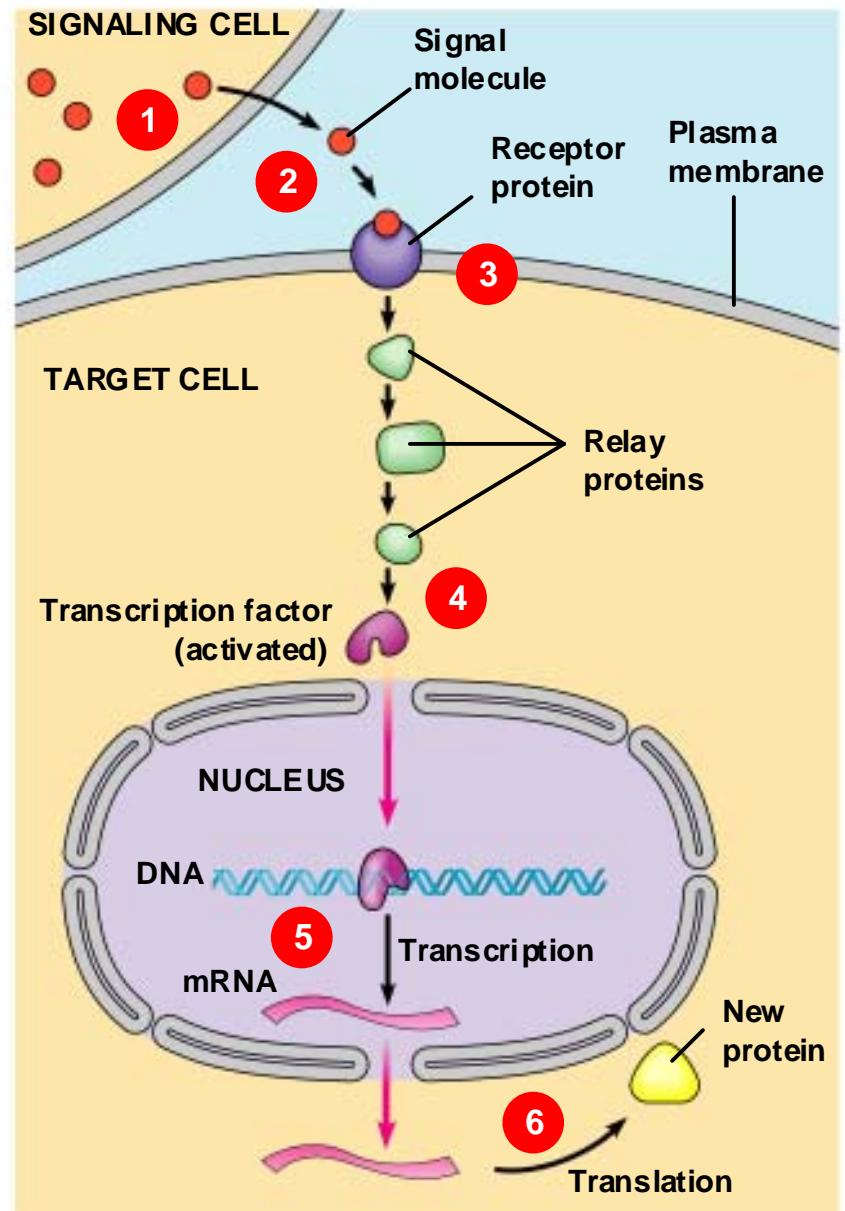
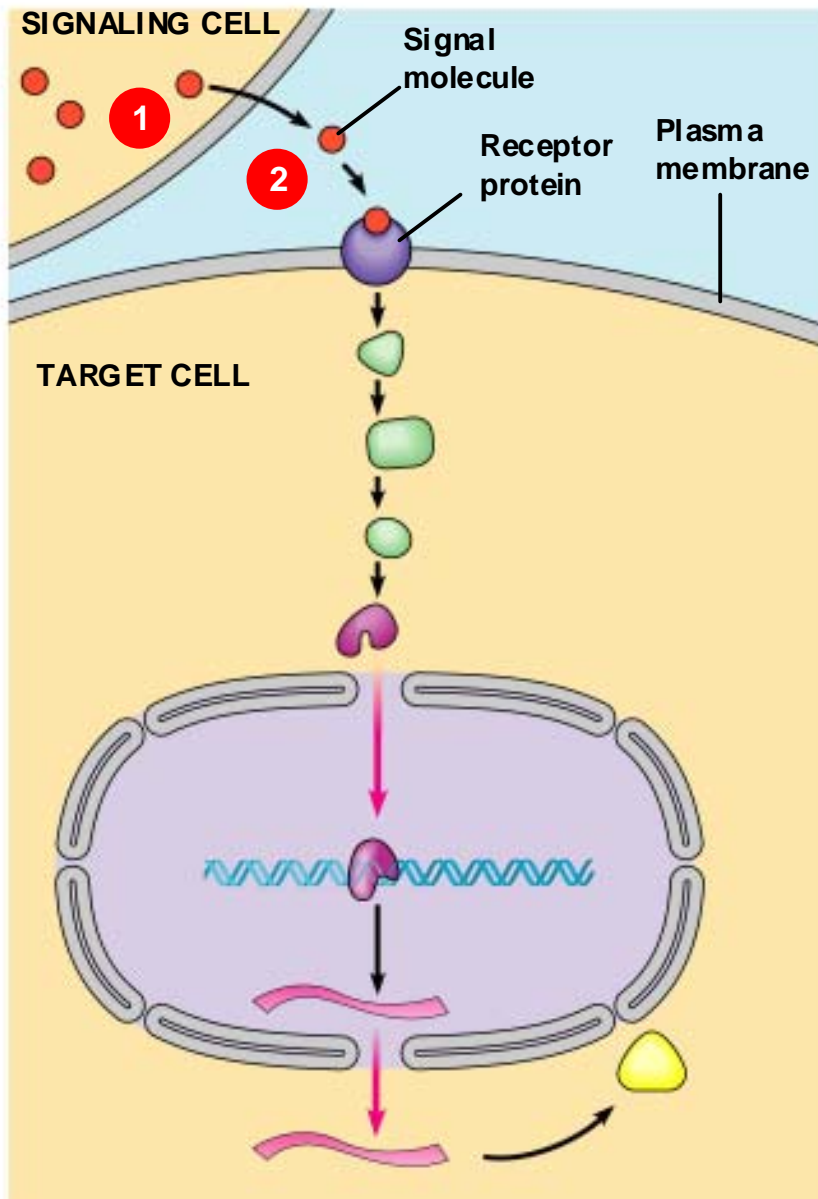
(D) acetylcholine



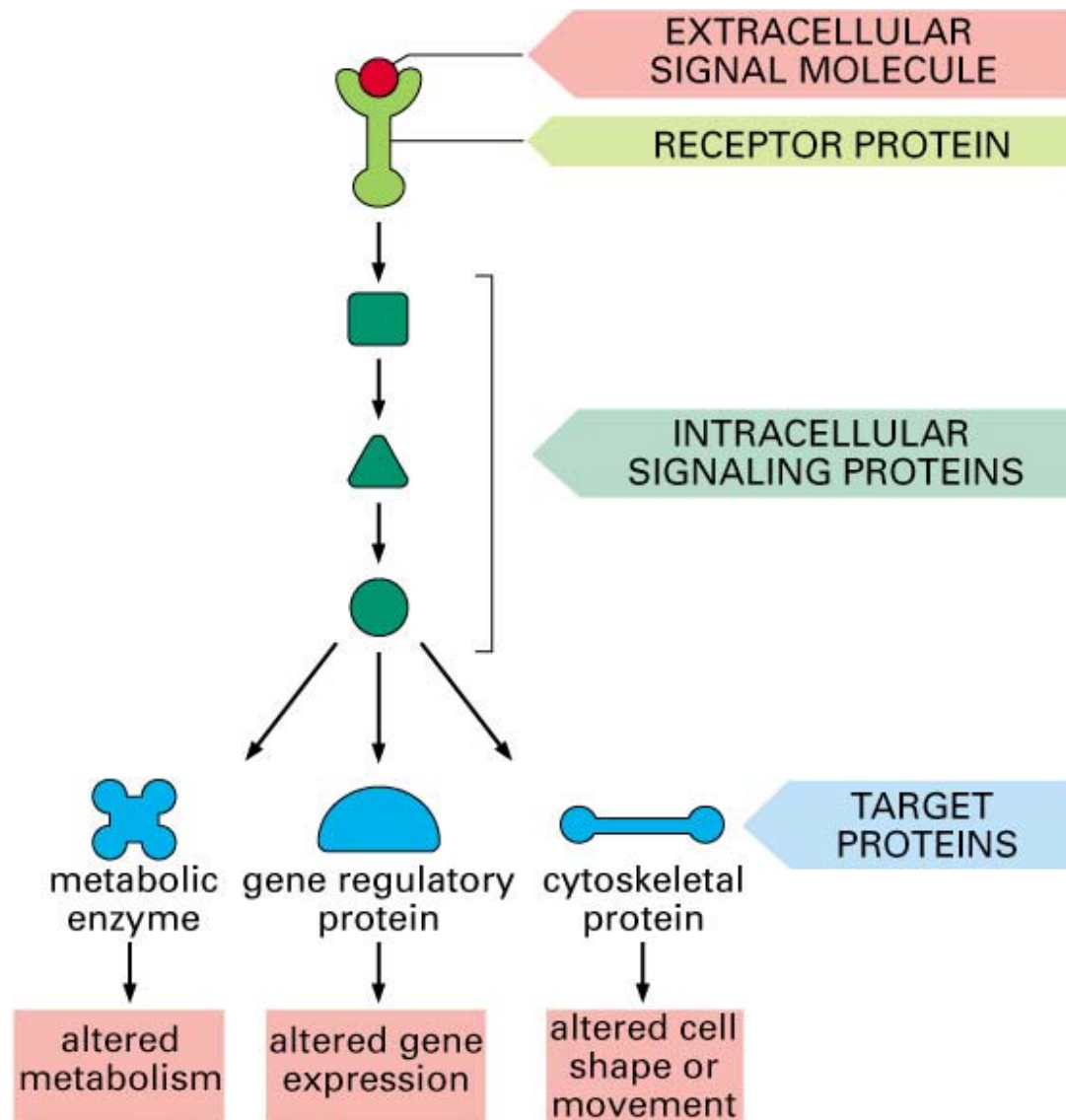
Características de la molécula señalizadora



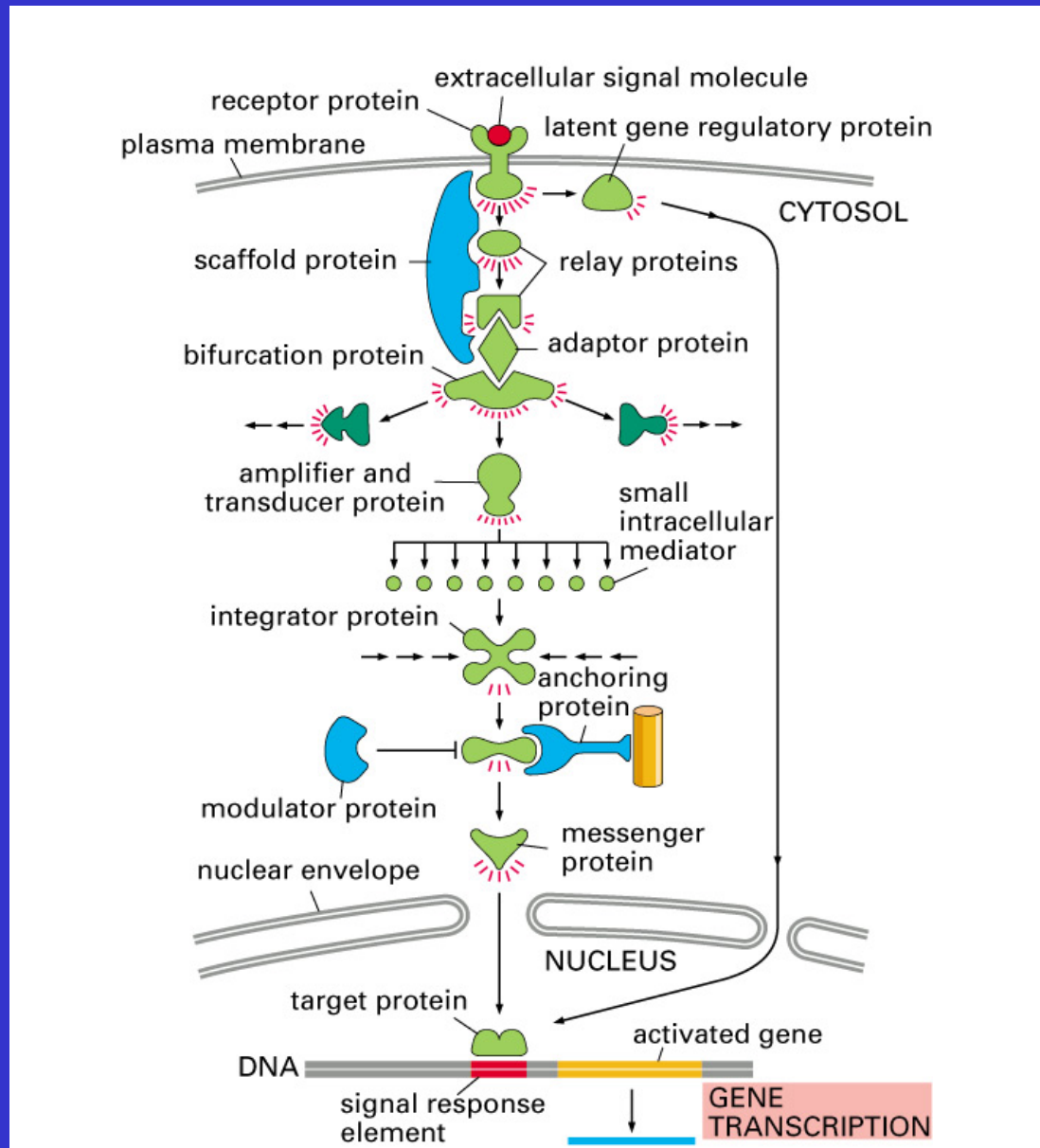




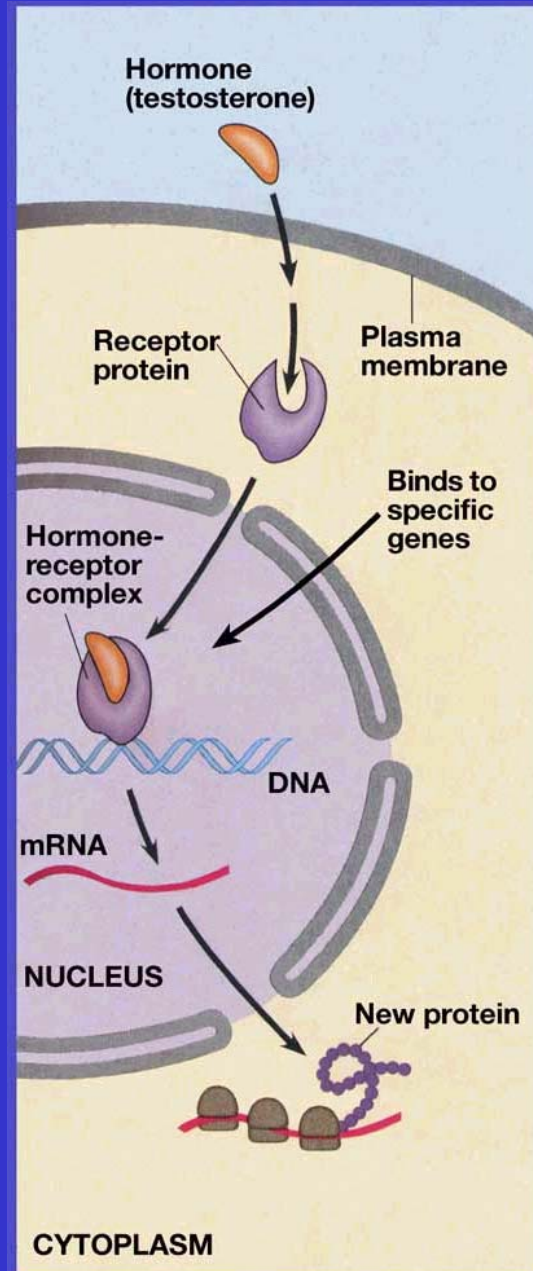
Proteínas blanco



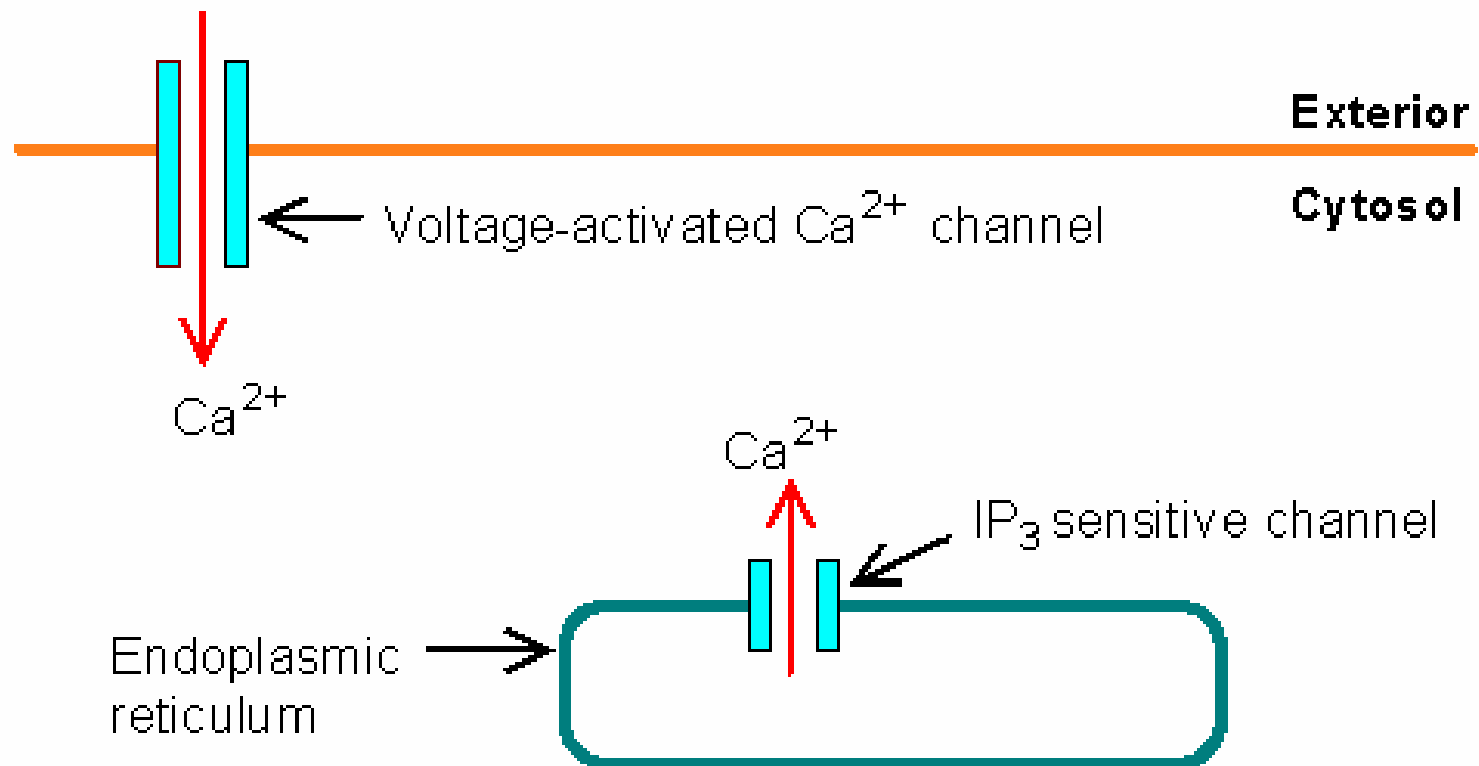
Organización de la señalización intracelular



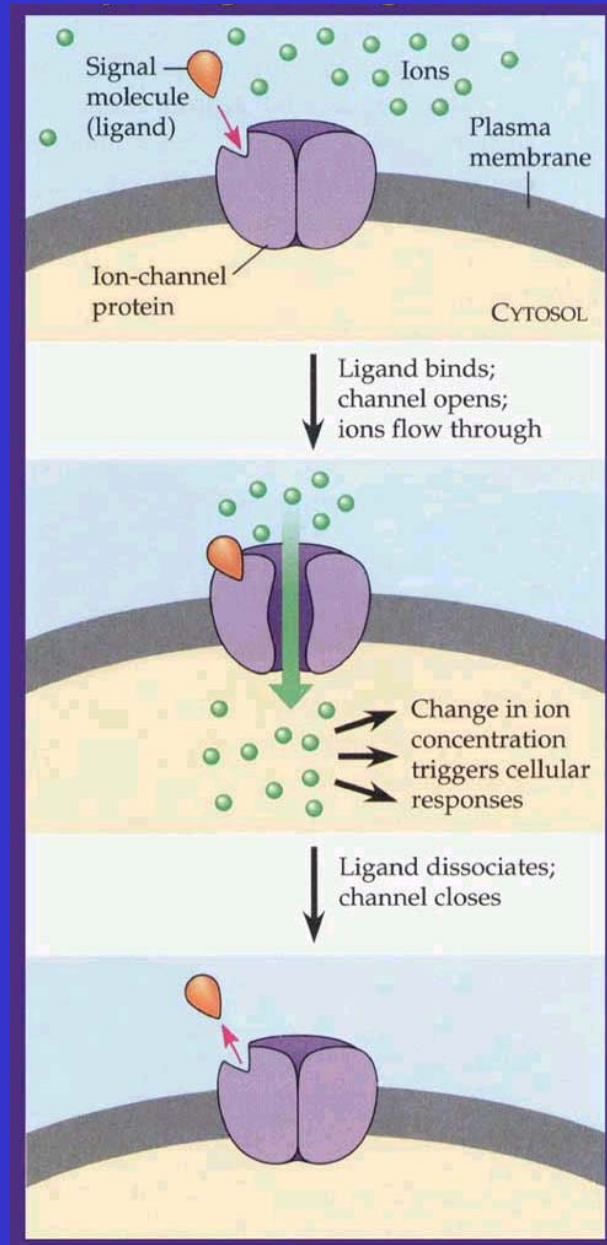
Rutas principales de señalización intracelular.



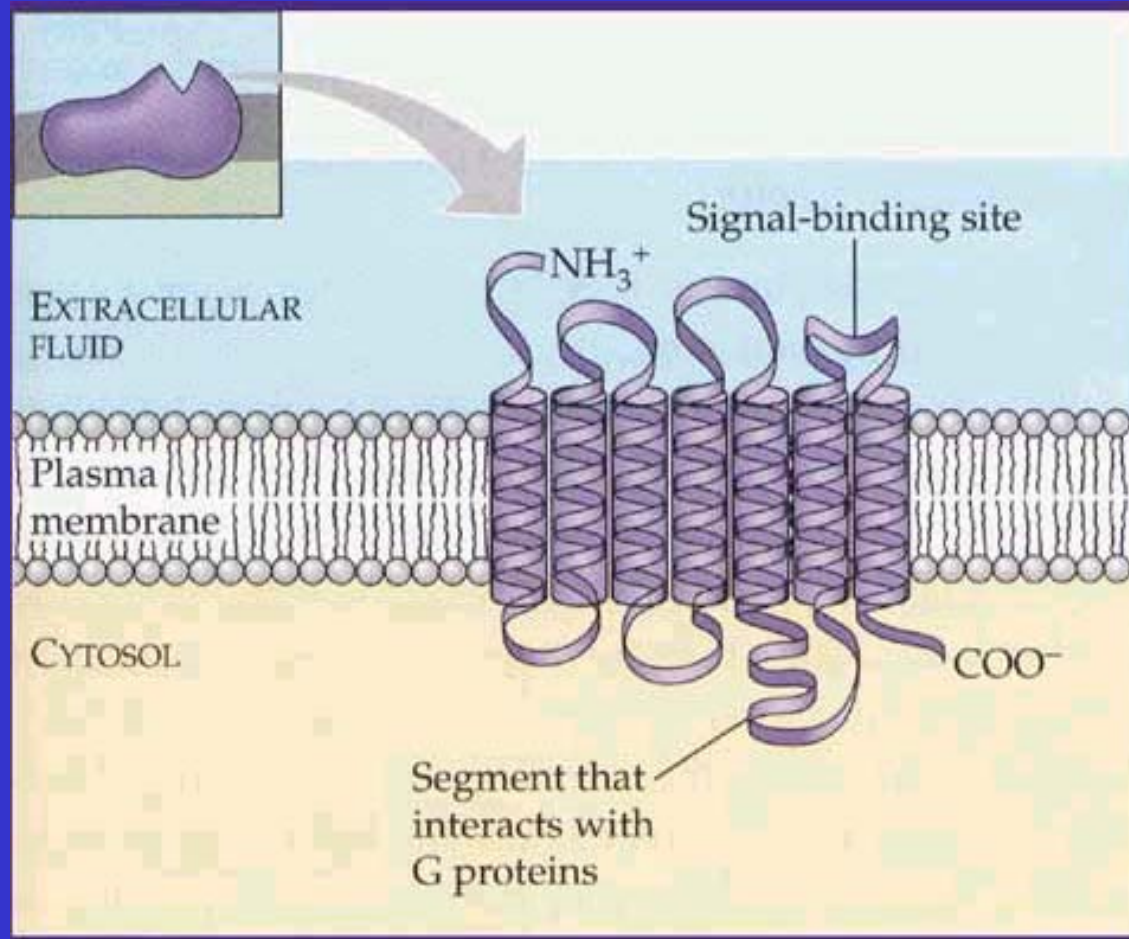
Canales iónicos



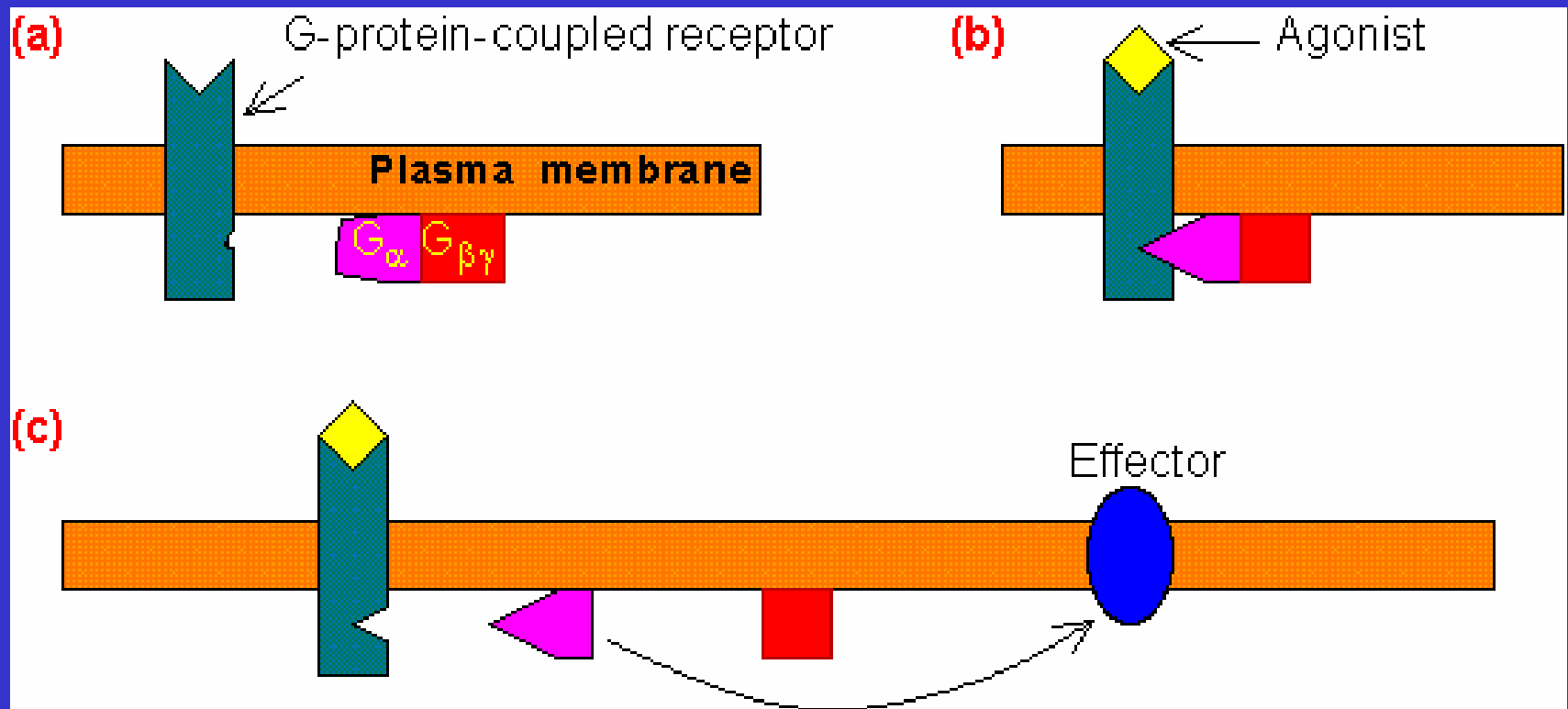
Canales iónicos operados por unión a ligando



Receptor acoplado a proteína G.



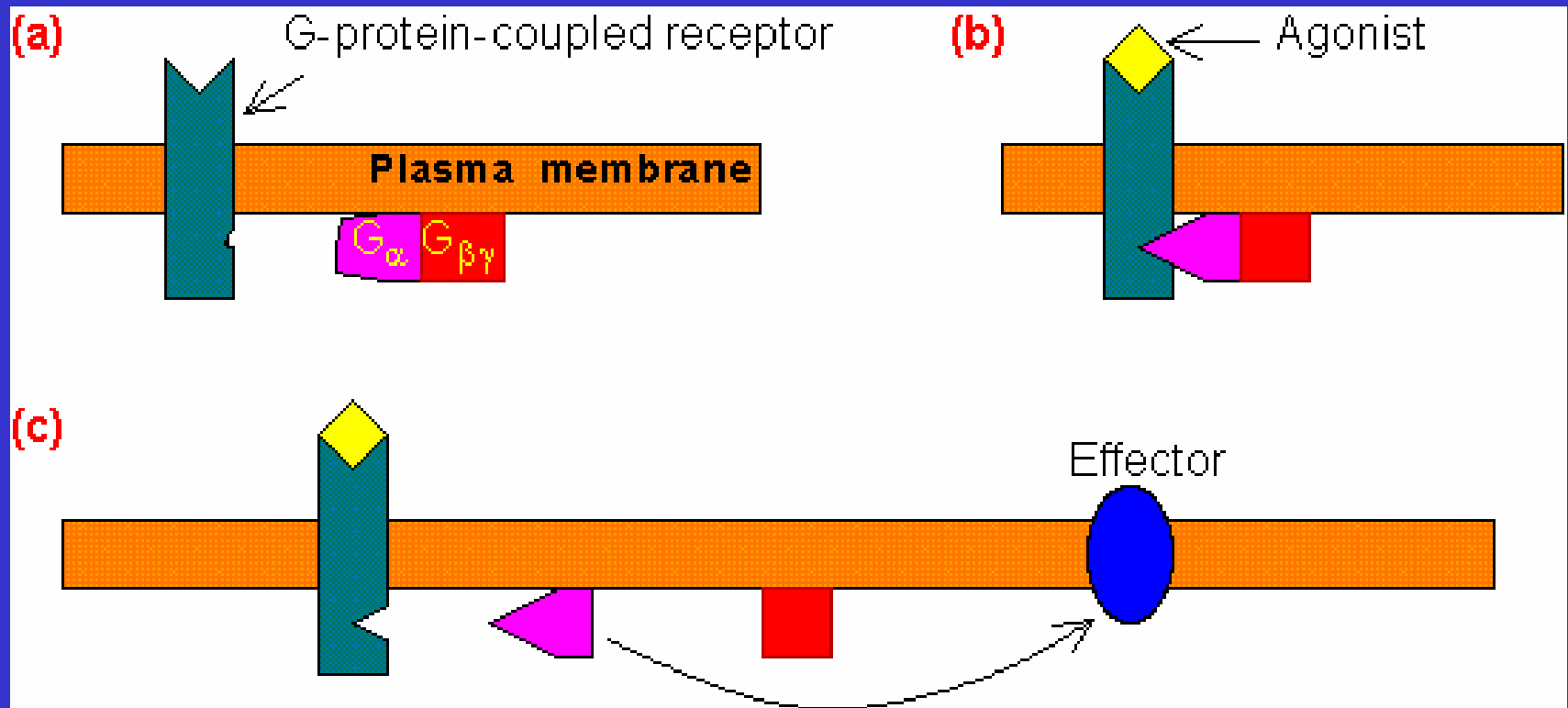
Receptores acoplados a proteína G.



G_{α} - intercambia GDP por GTP

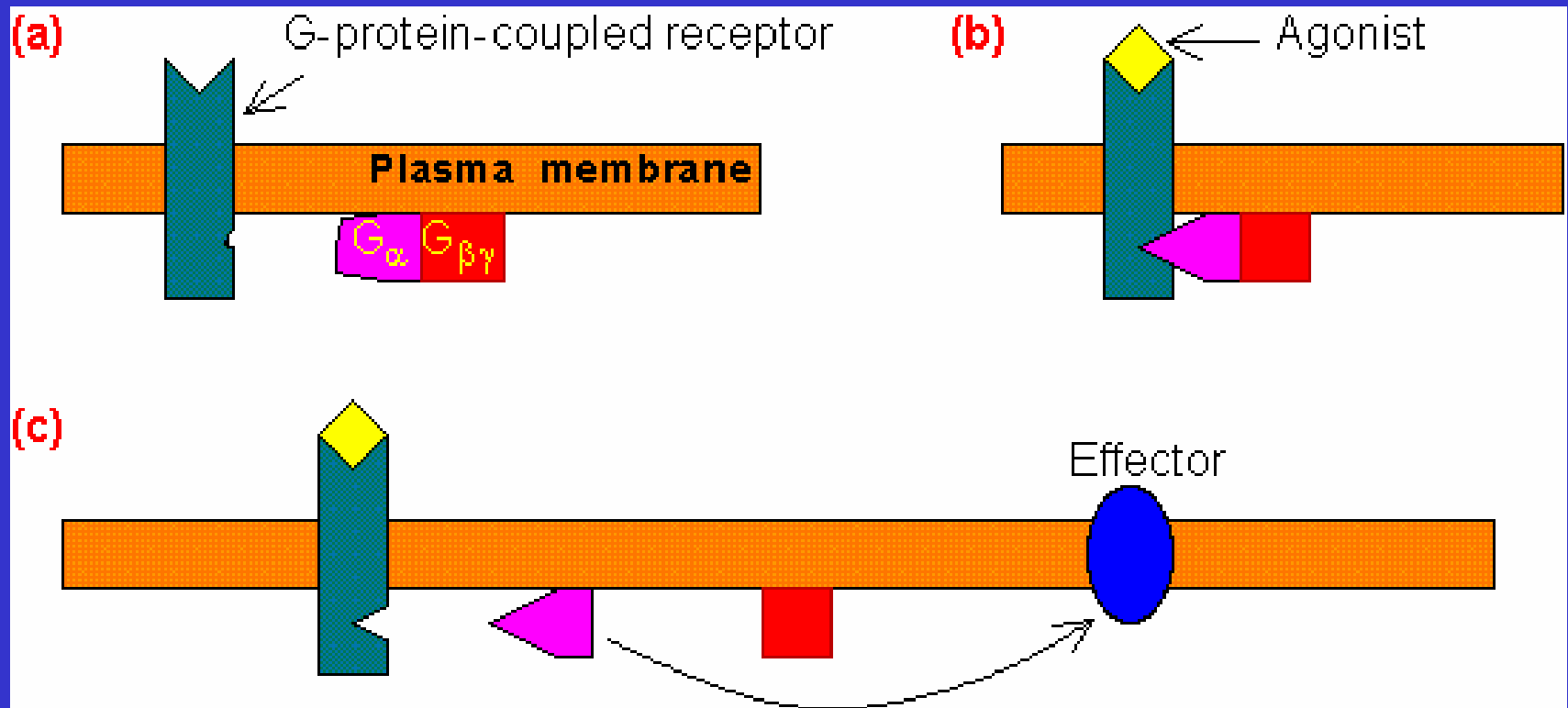
G_{α} - GTP se une a efector

Receptores acoplados a proteína G.



Efectores: Adenilato ciclase \rightarrow AMPc \rightarrow PKA
 Fosfolipasa \rightarrow DAG IP₃

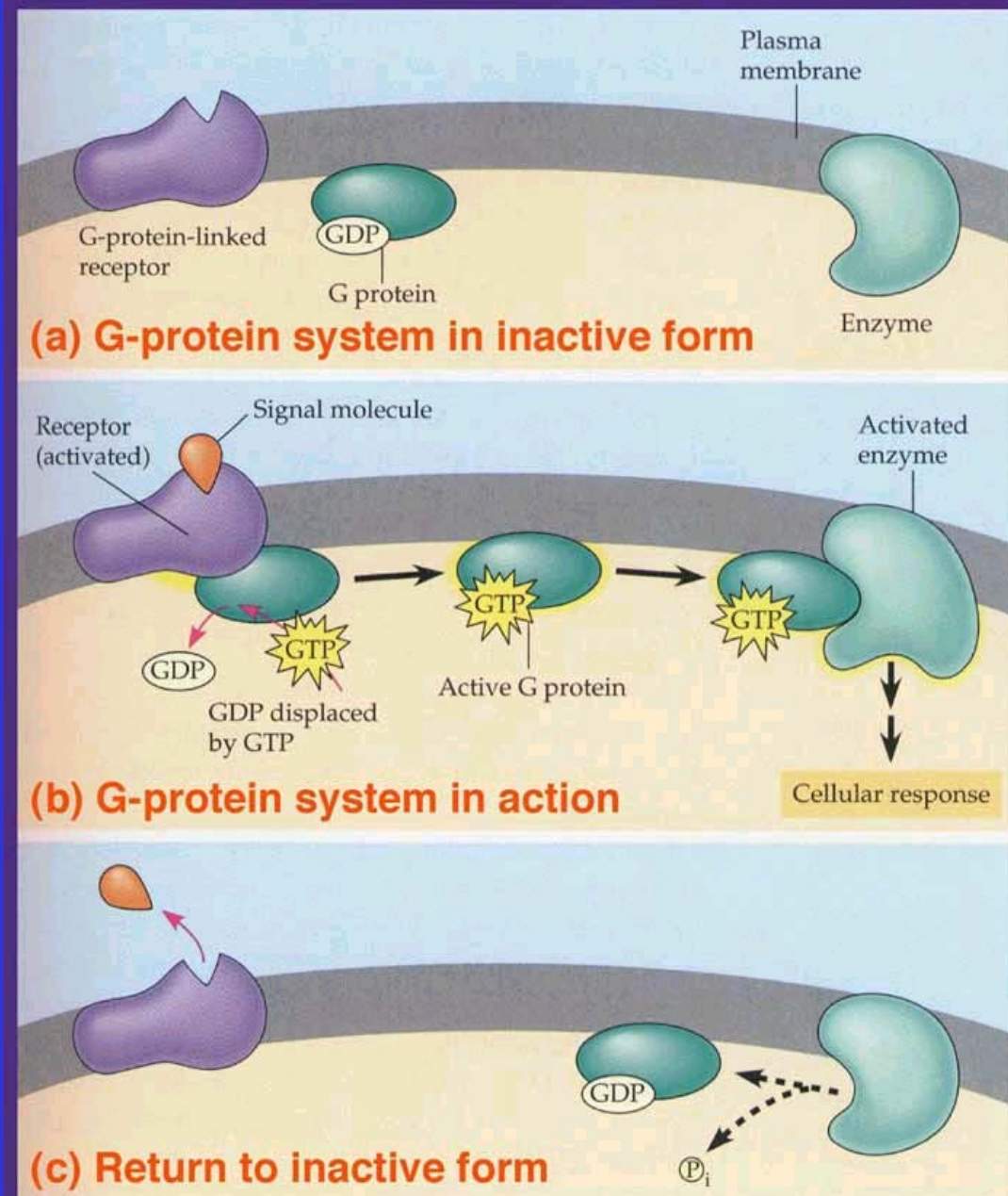
Receptores acoplados a proteína *G*.



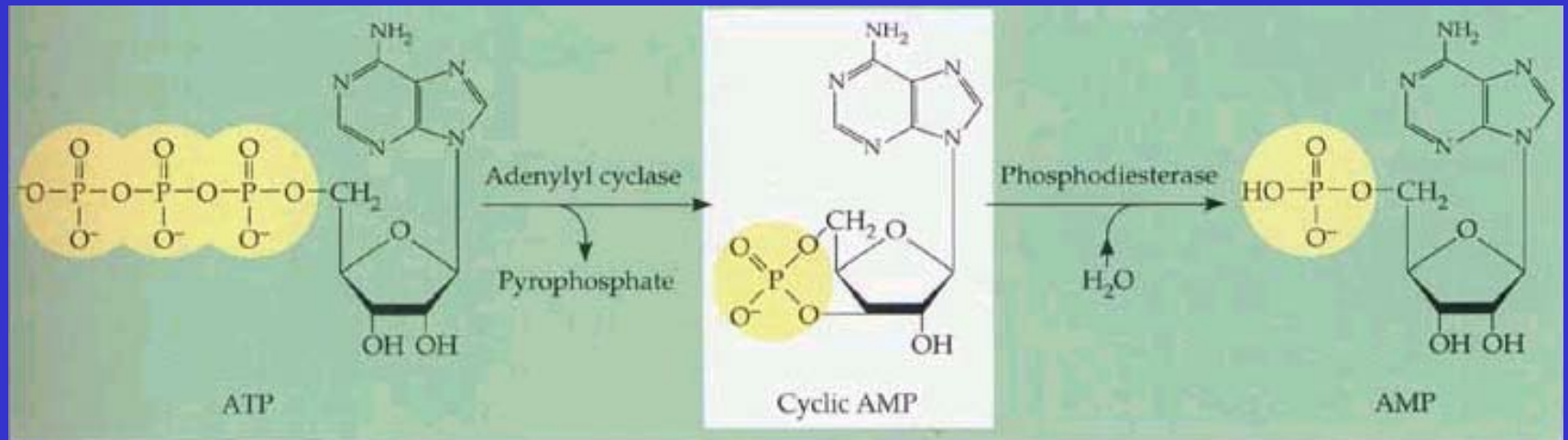
$G_s\alpha$ - estimuladora

$G_i\alpha$ - inhibitoria

Receptor acoplado a Proteína G.

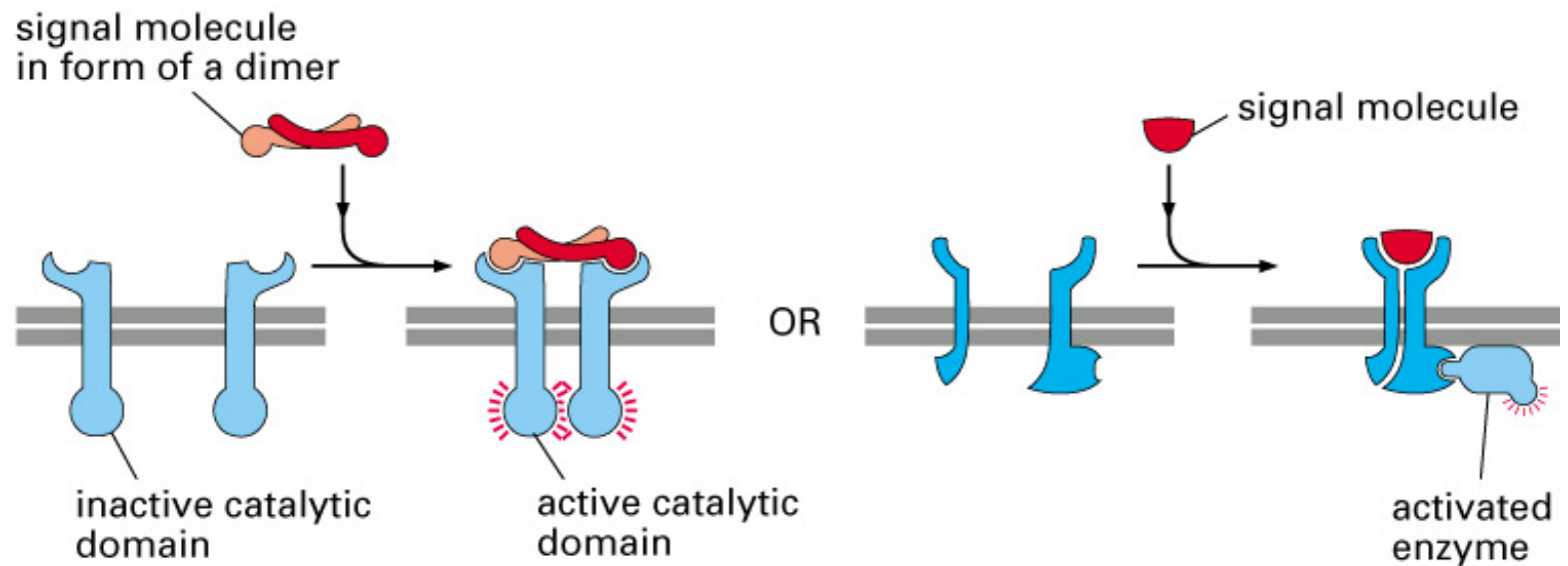


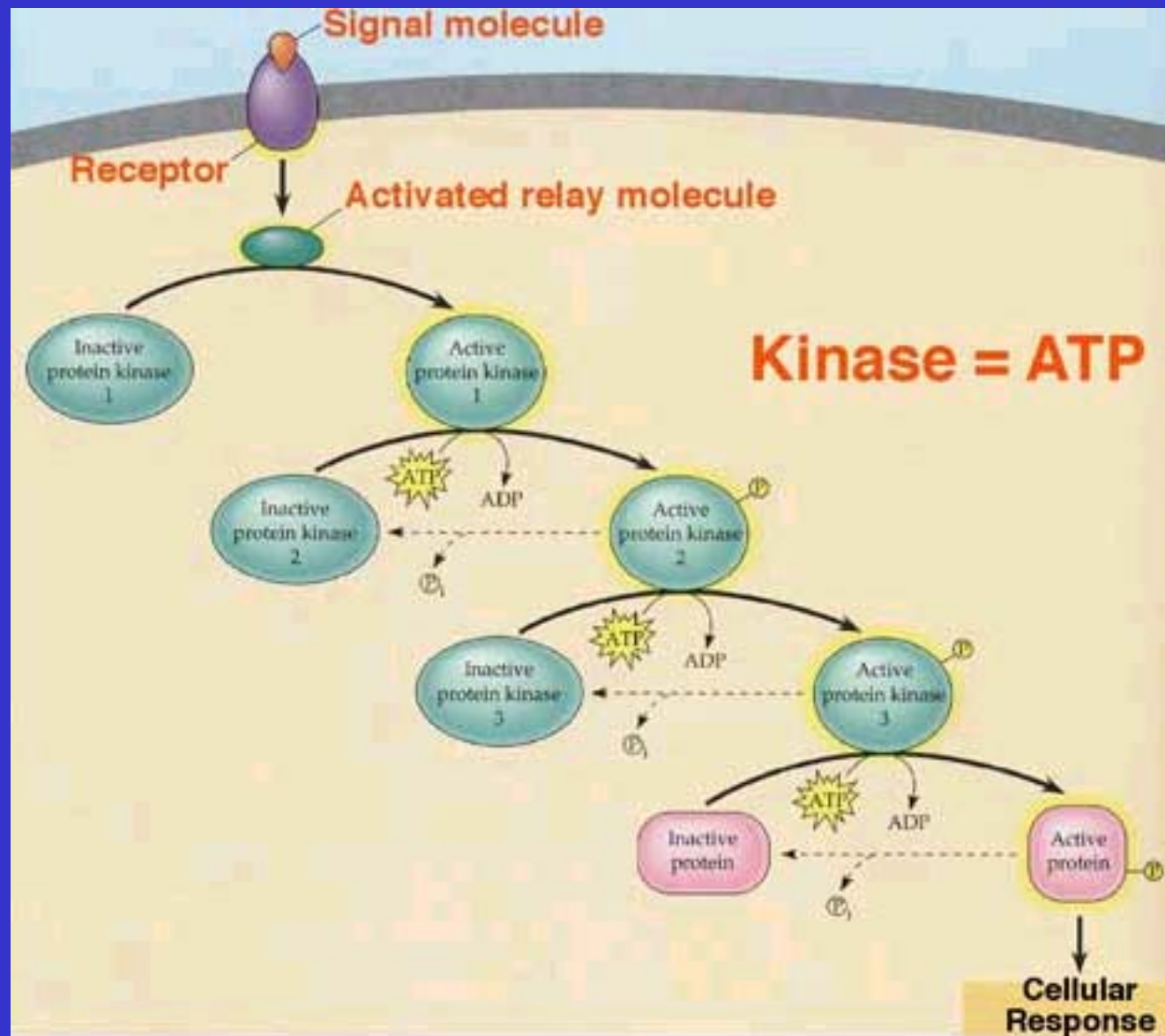
Adenilato ciclaza



Receptores con actividad enzimática

(C) ENZYME-LINKED RECEPTORS





Tirosina quinasa receptora.

MAPK signaling cascades

