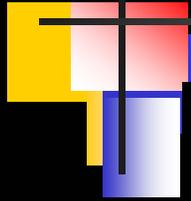


# GENERALIDADES SOBRE INMUNIDAD NATURAL E INMUNIDAD ADAPTATIVA



## Barreras primarias

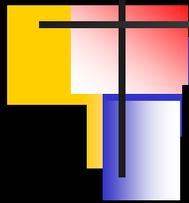
**La integridad de la piel y de las membranas mucosas**

**La integridad de los vellos y cilios y de la flora habitual**

**La descamación de la piel**

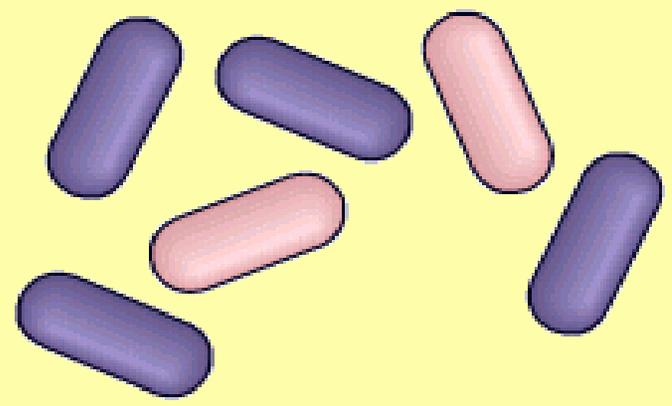
**Los reflejos mecánicos tales como la tos, el estornudo, el vómito**

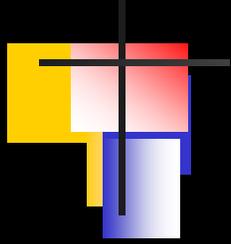
**Las características físicas y el contenido químico de diversas secreciones orgánicas: sudor, lágrimas, cerilla, saliva, jugo gástrico, bilis, jugo pancreático, fluido seminal, esmegma, orina)**



<b>Céls T</b>	<b>Céls B</b>	<b>C'</b>	<b>NK</b>	<b>DC</b> <b>Mφ</b> <b>μφ</b>
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<b>Céls den- dríticas (DC)</b>	<b>Mφ</b>	<b>μφ</b>	<b>C'</b>	<b>NK</b>
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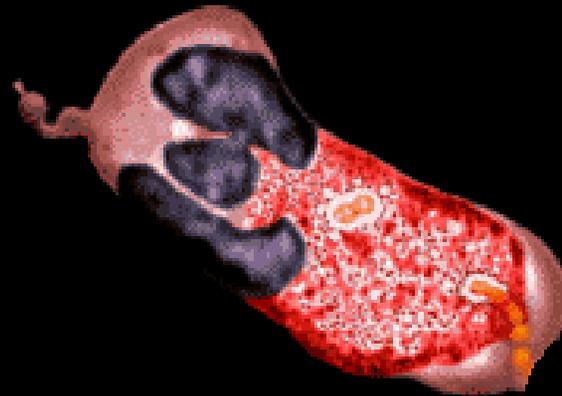
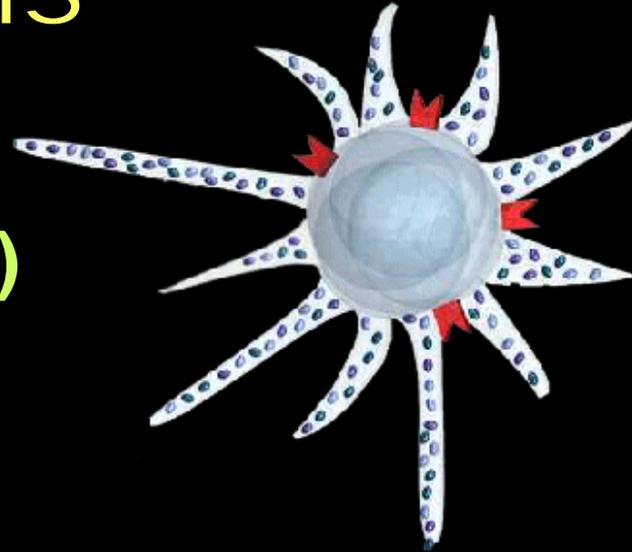


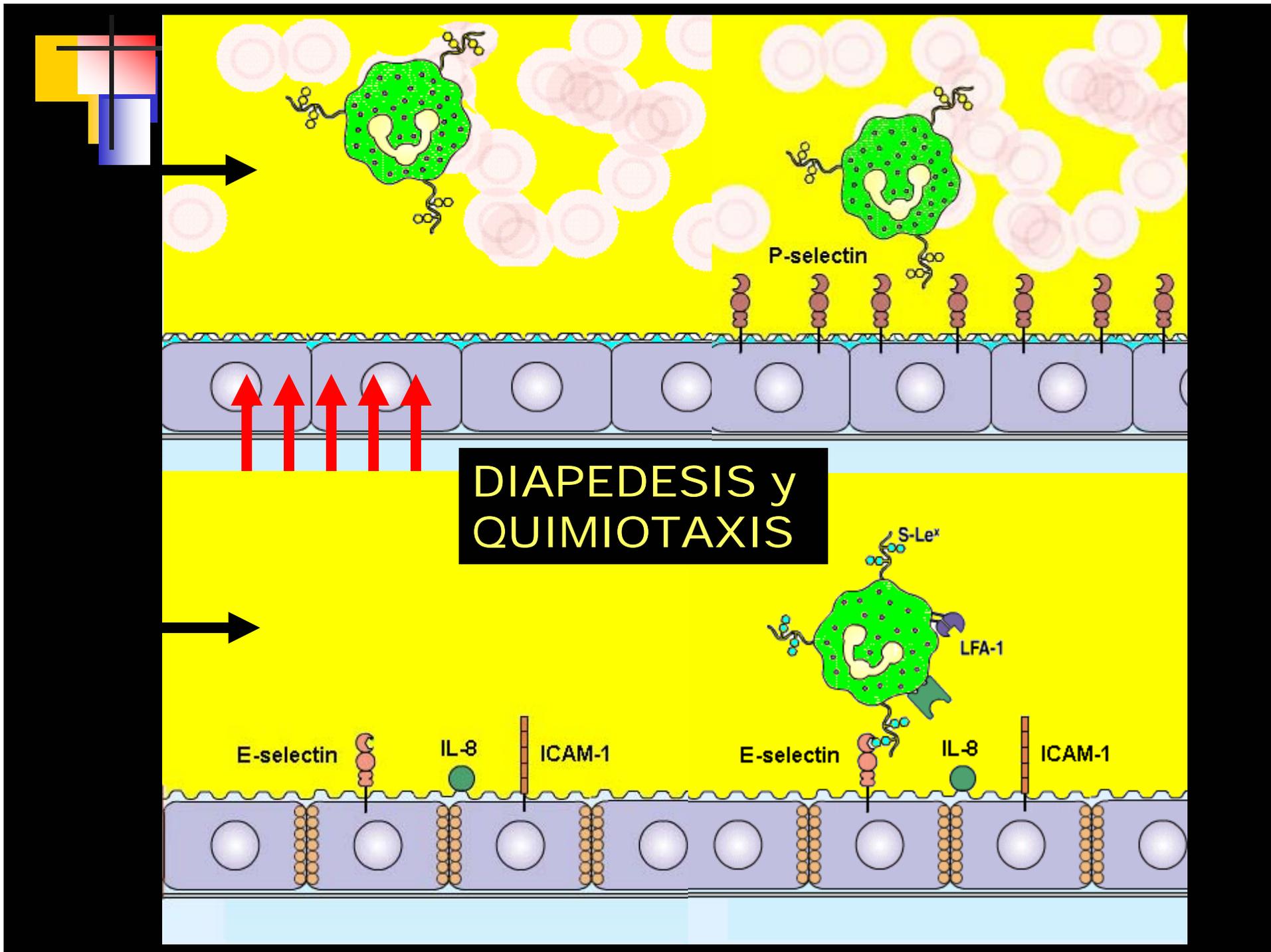


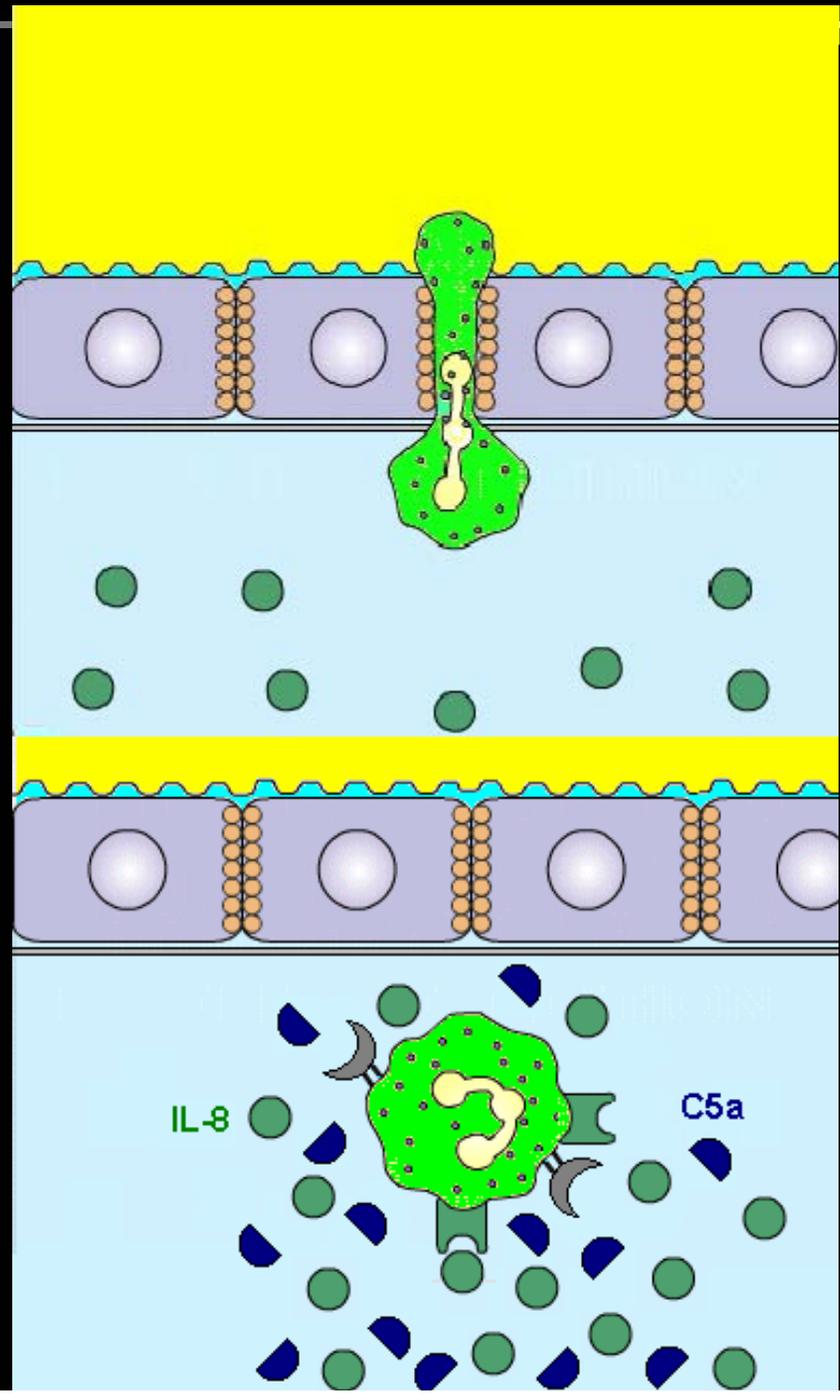
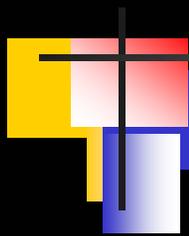
# FAGOCITOSIS

Fagocitos profesionales:

- ✓ Células dendríticas (DC)
- ✓ Macrófagos ( $M\phi$ )
- ✓ Neutrófilos ( $\mu\phi$ )



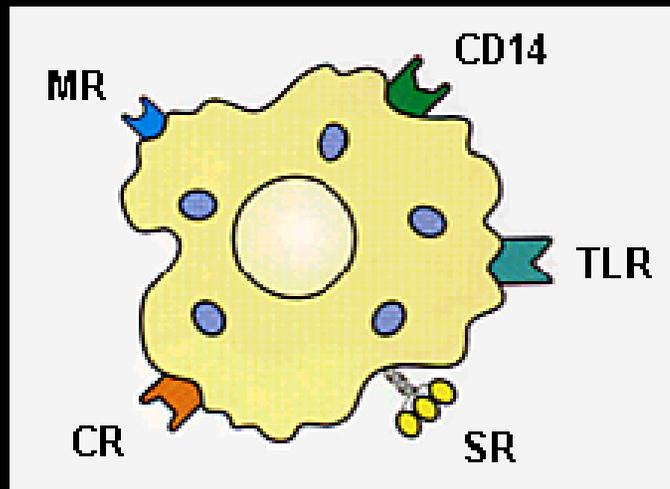
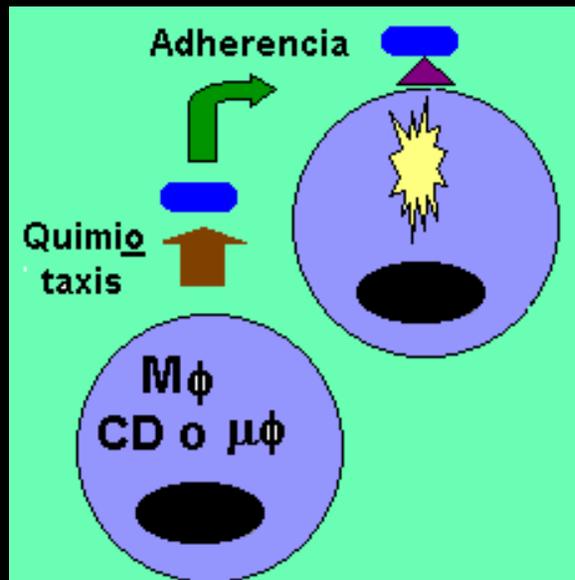




IL-8

C5a

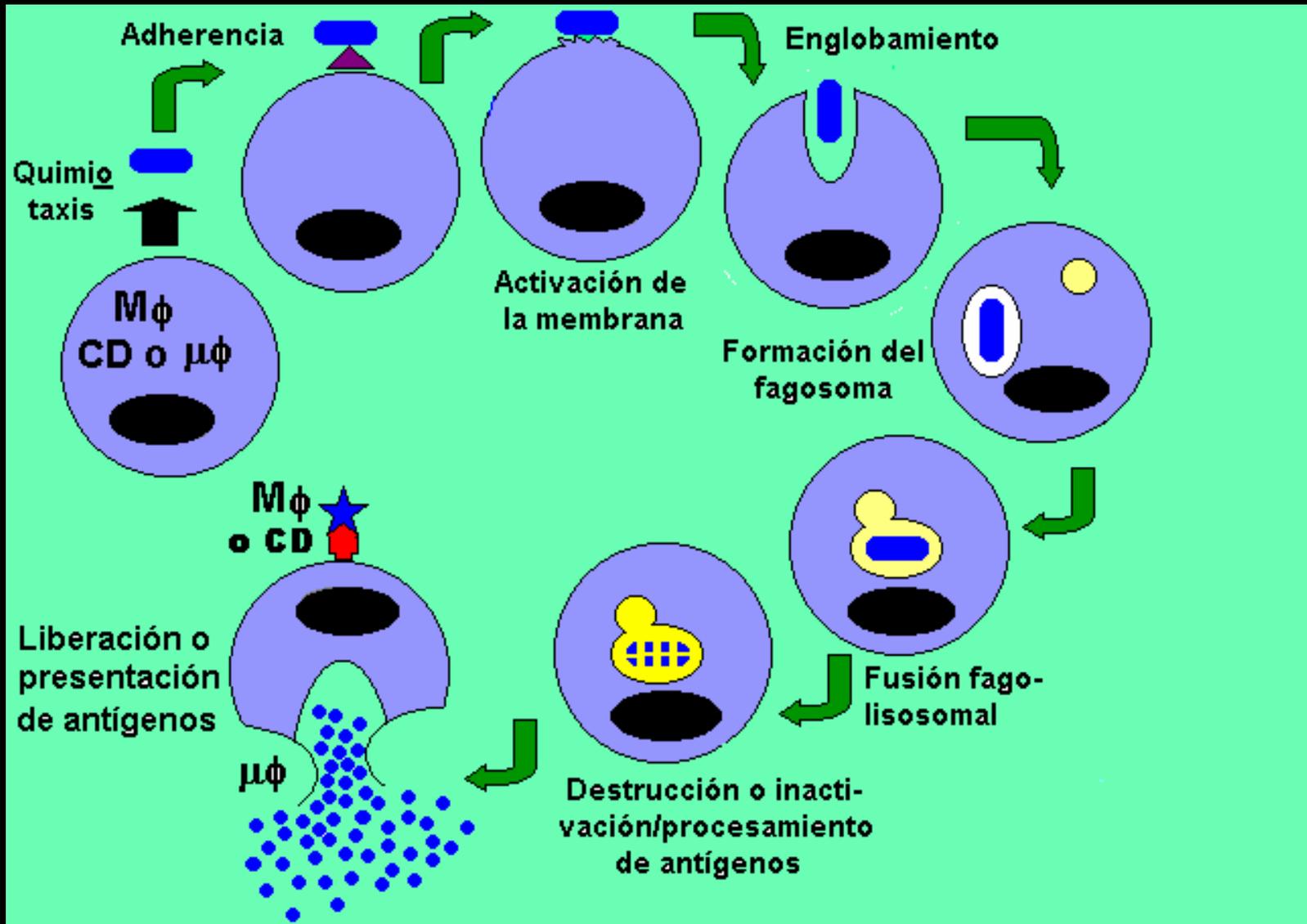
# EL PROCESO FAGOCITARIO

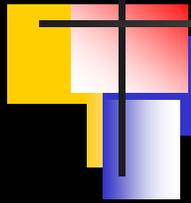


## Receptores superficiales en los fagocitos:

- ✓ SR
- ✓ MR
- ✓ CR
- ✓ FcγR
- ✓ CD14
- ✓ TLR
- ✓ VnR
- ✓ PS-R
- ✓ IFNγR
- ✓ TNF-R

# EL PROCESO FAGOCITARIO

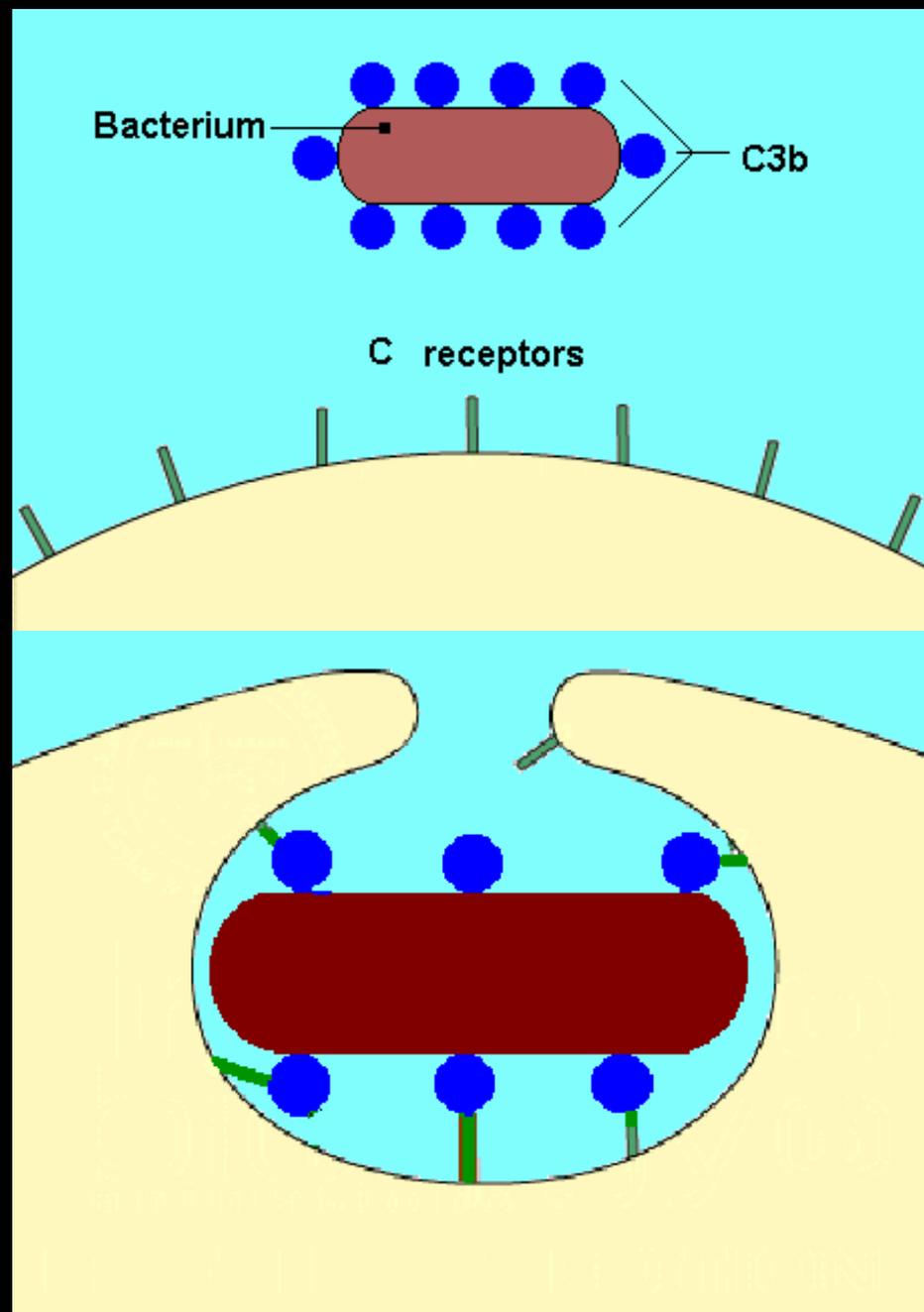




## El relevante papel del péptido C3b del C':

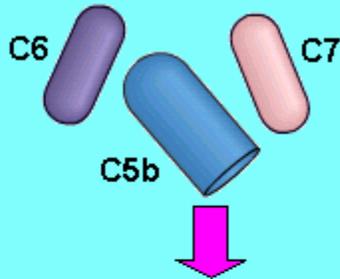
1. Como opsonina
2. Como activador del sistema del C' por la vía alterna

En ambos casos, gracias a su elevada concentración y a que se une con gran avidéz a ALT, LPS y OMPs.

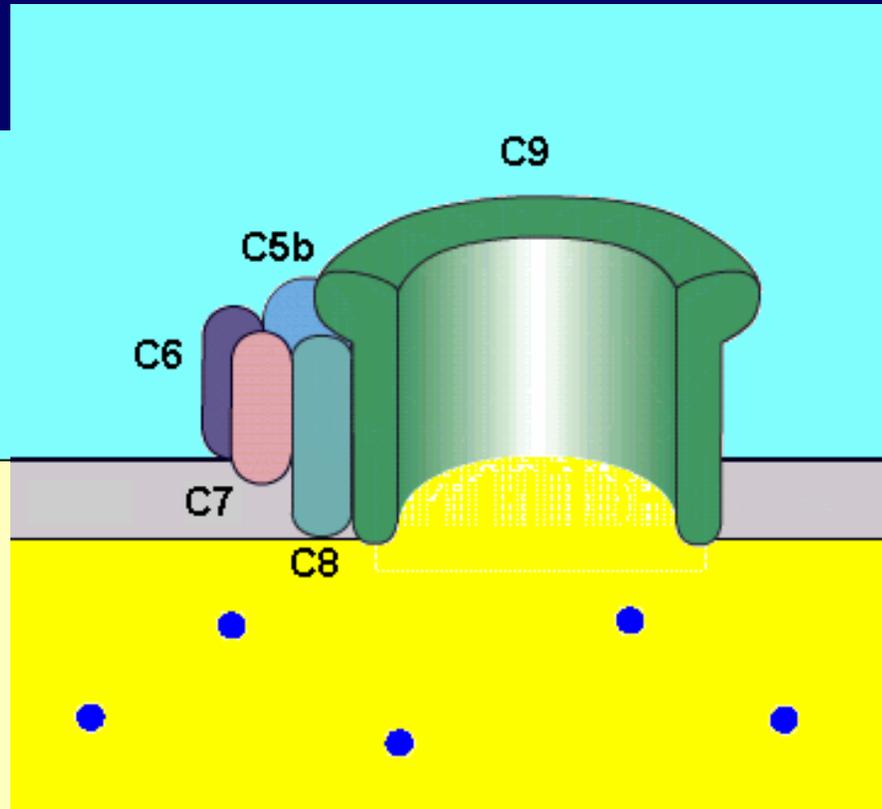
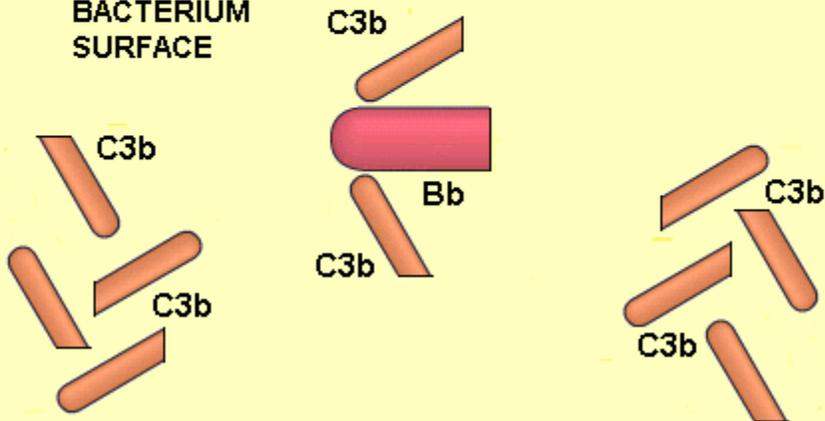


# ACTIVACIÓN DEL C', VÍA ALTERNA

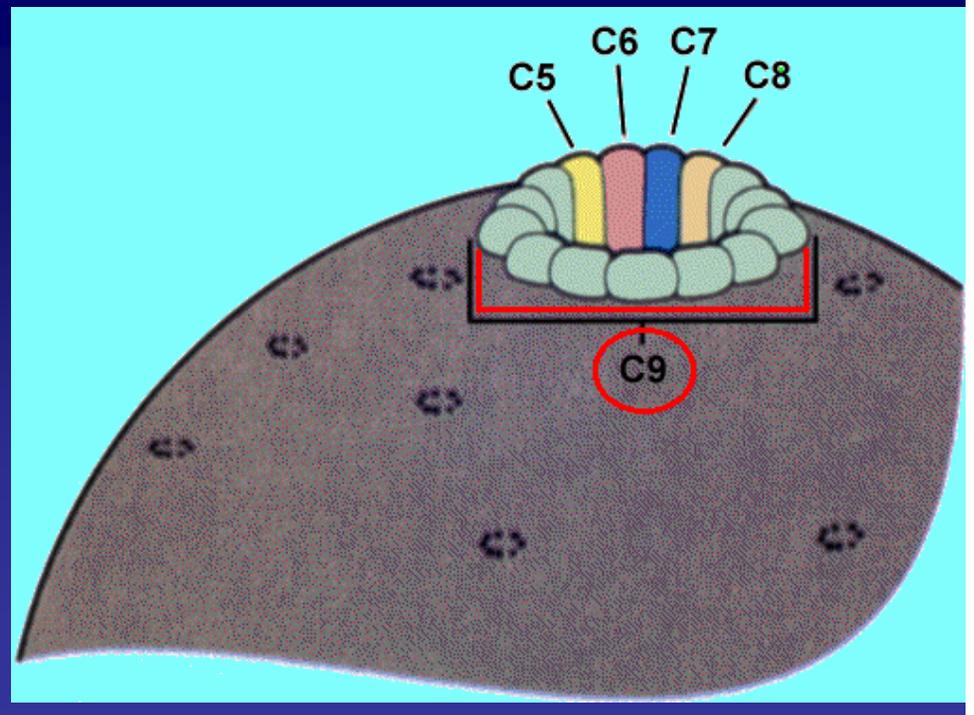
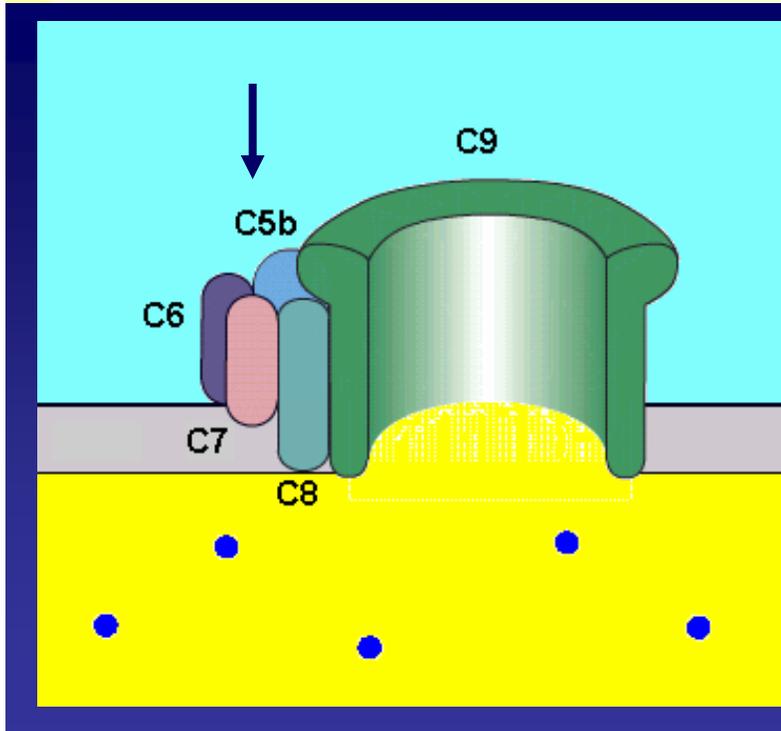
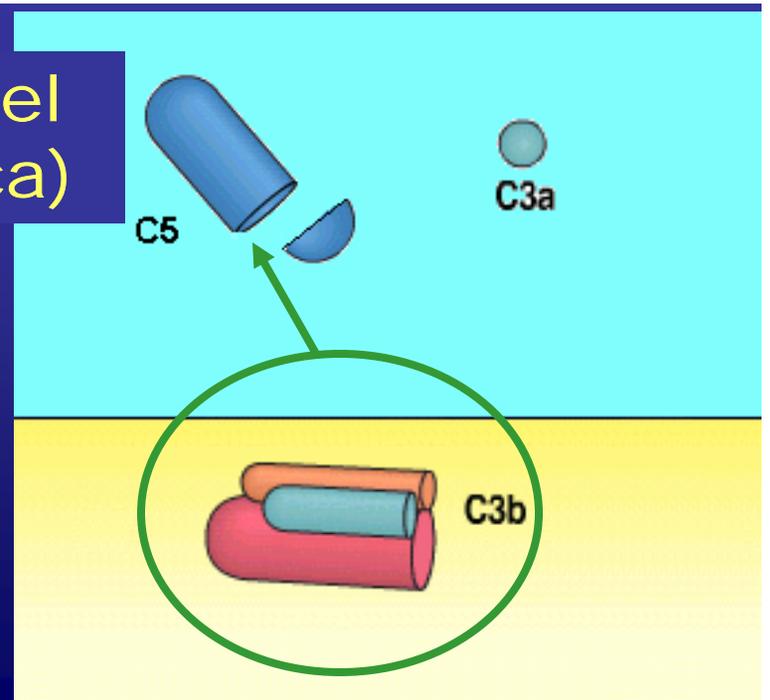
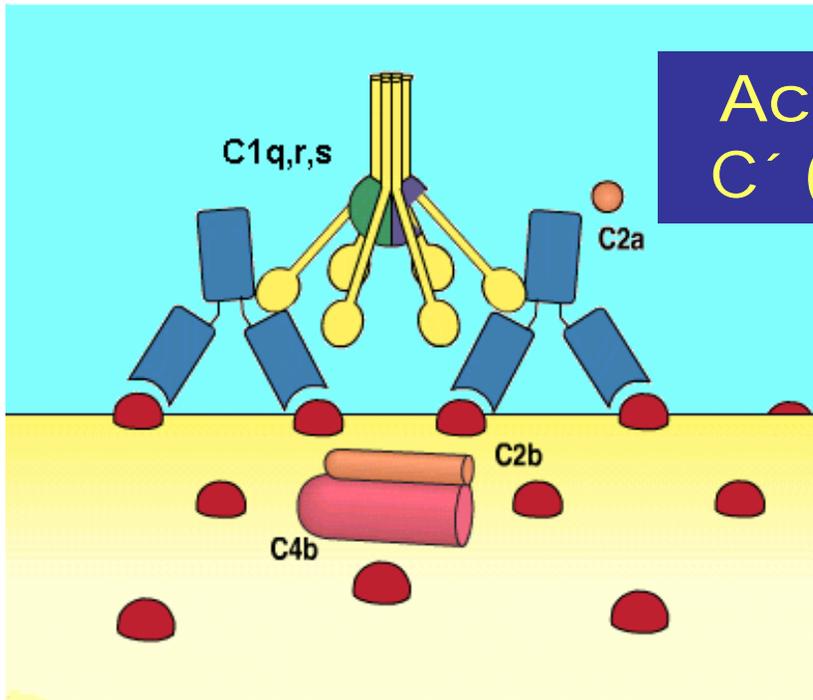
Alternative pathway of complement activation



BACTERIUM SURFACE

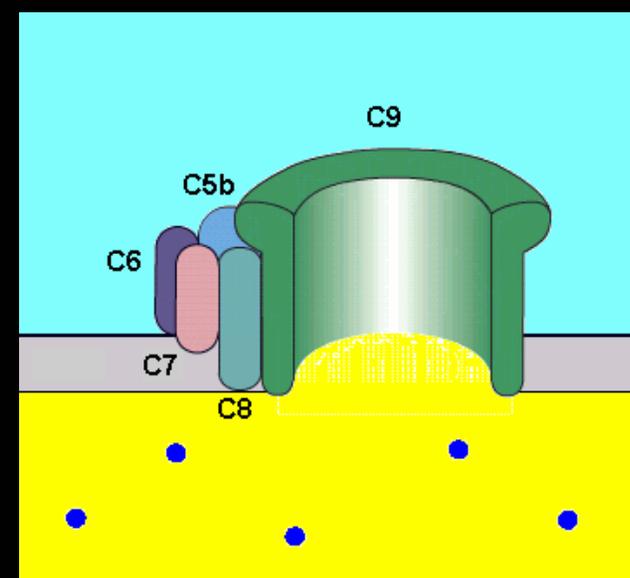
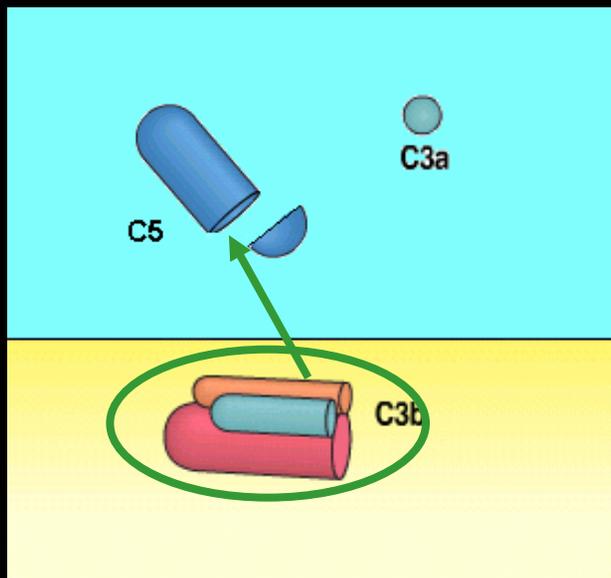
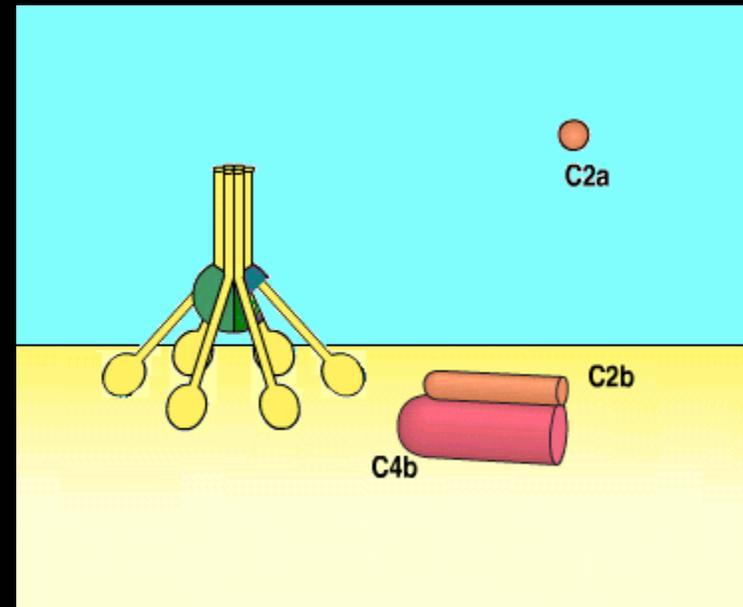
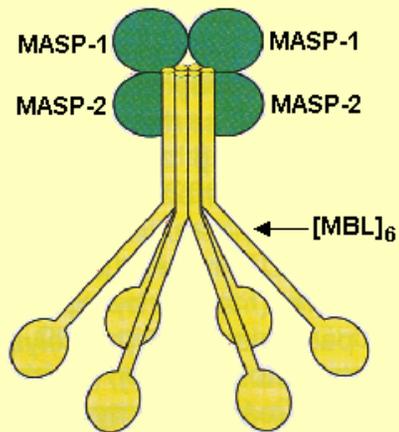


# Activación del C' (vía clásica)

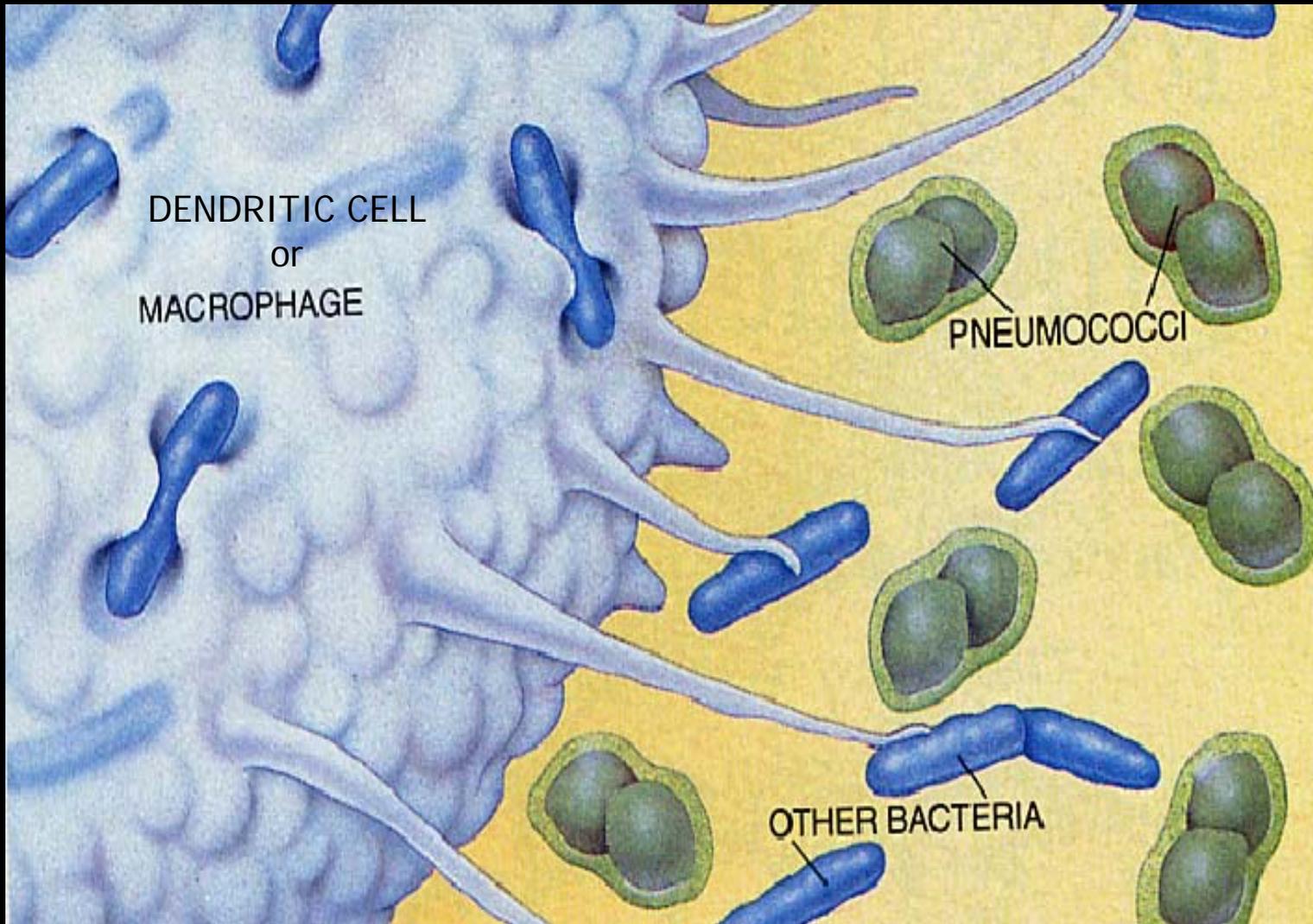


# ACTIVACIÓN DEL C' VÍA MBLs

MBL + MBL-associated serin proteasas 1 and 2 is a complex homologous to C1q,r,s



# La fagocitosis es clave para la producción de anticuerpos...



DC y Mφ

↓  
Presentación  
del Ag

LINFOCITO T

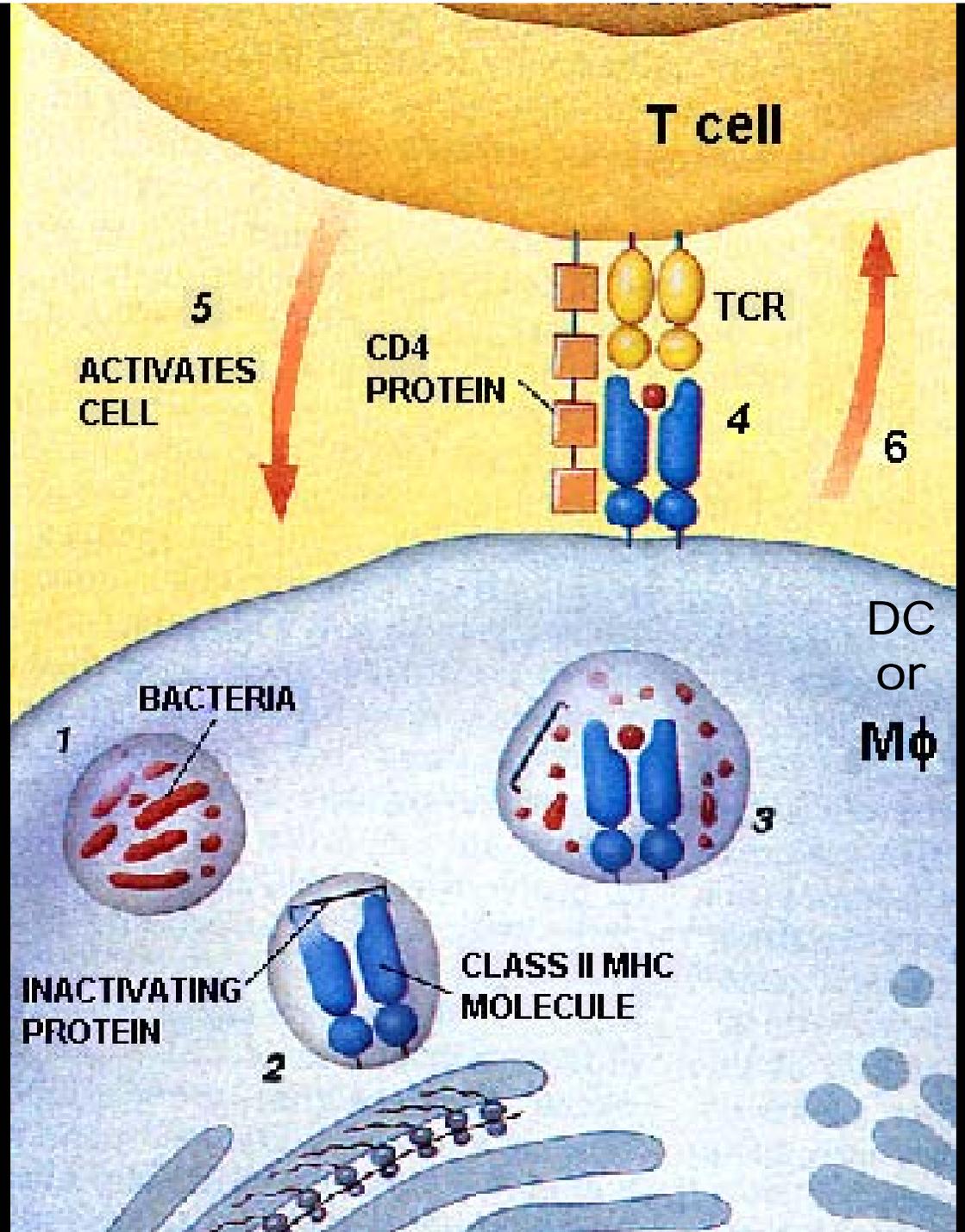
↓  
Activación  
Diferenciación  
(Th2)

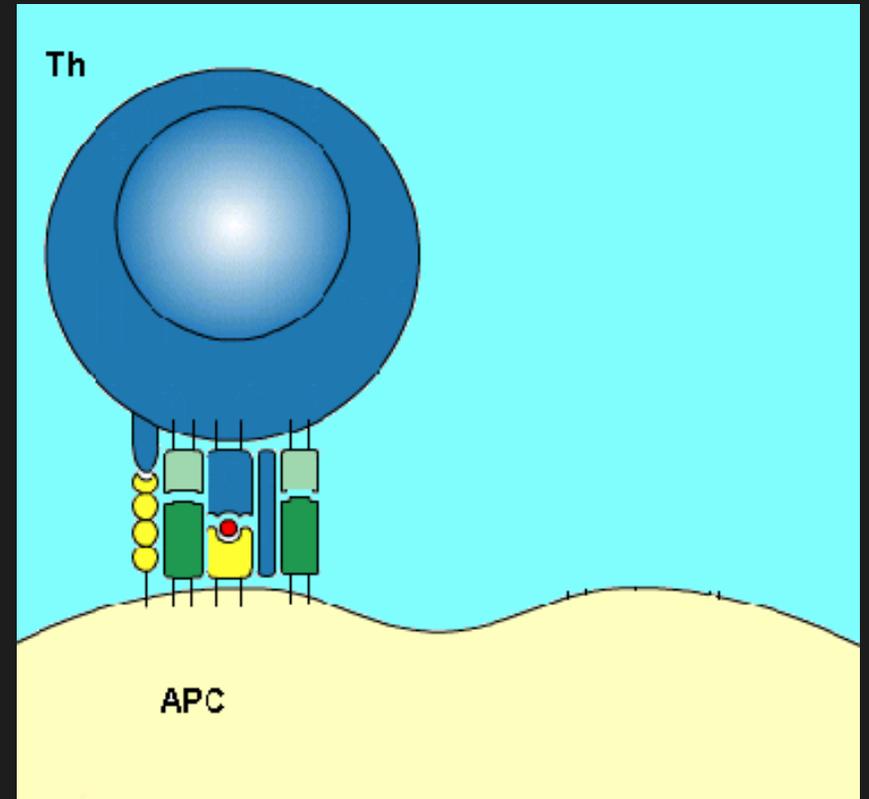
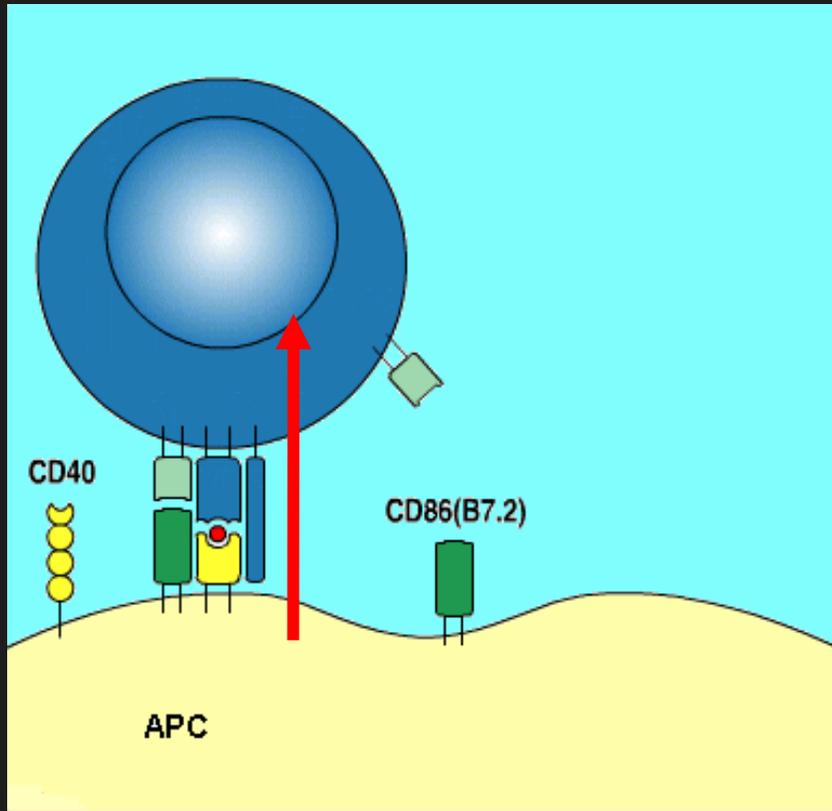
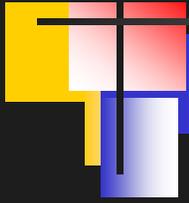
LINFOCITO B

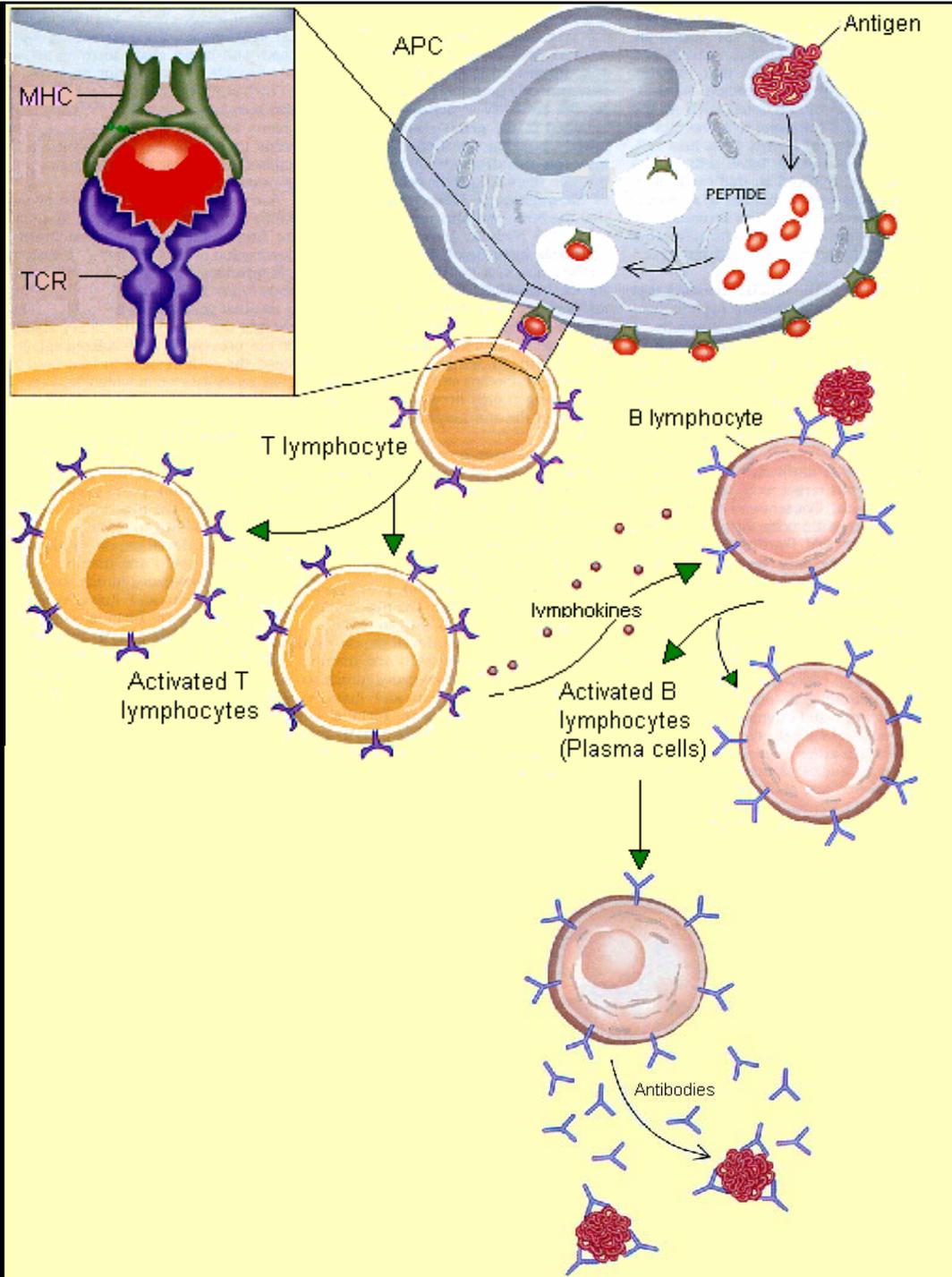
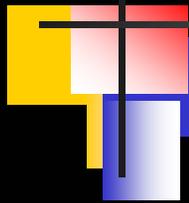
↓  
Diferenciación

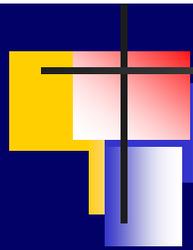
CÉLULA  
PLASMÁTICA

↓  
ACS





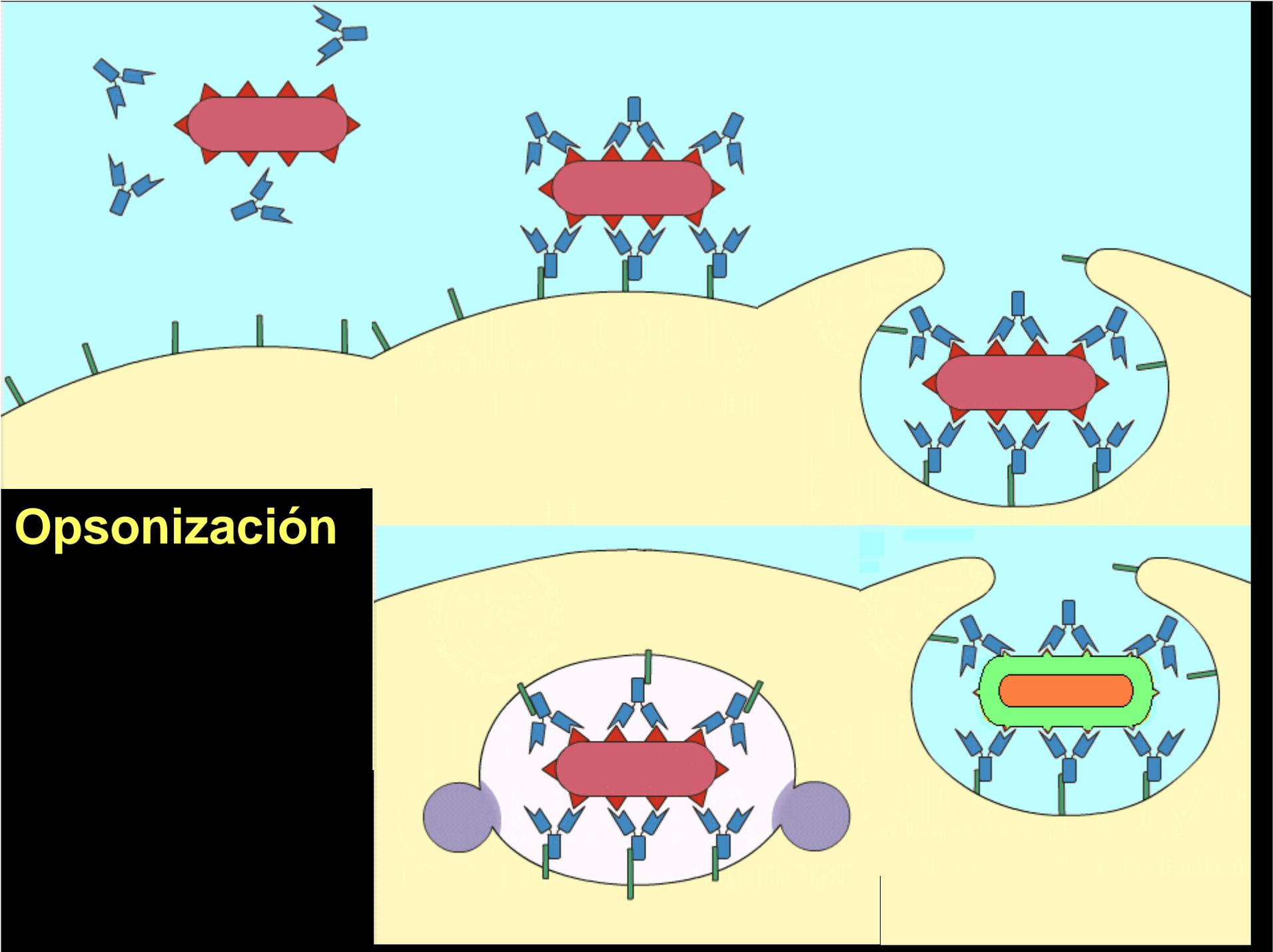


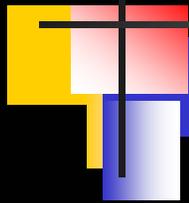


## ¿Cómo actúan los anticuerpos?

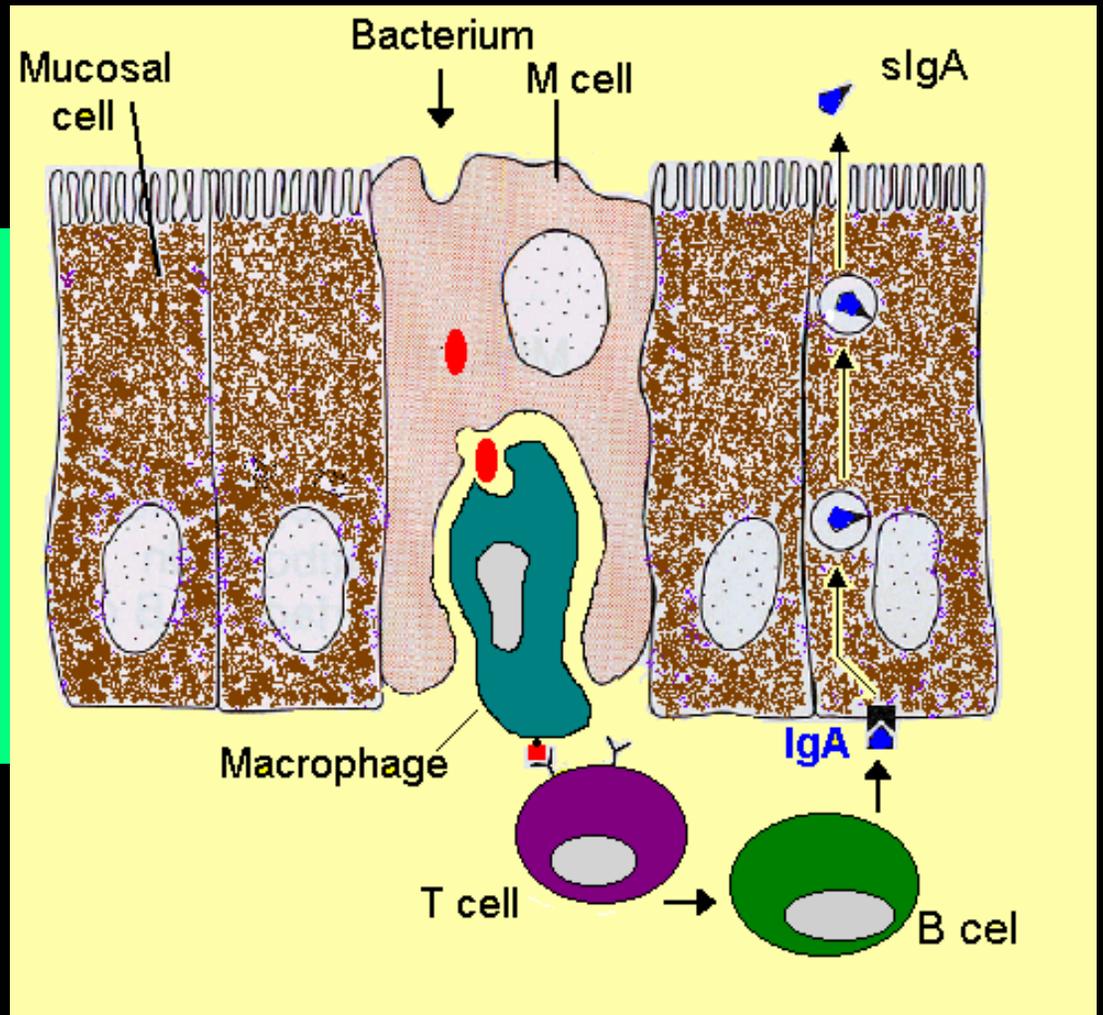
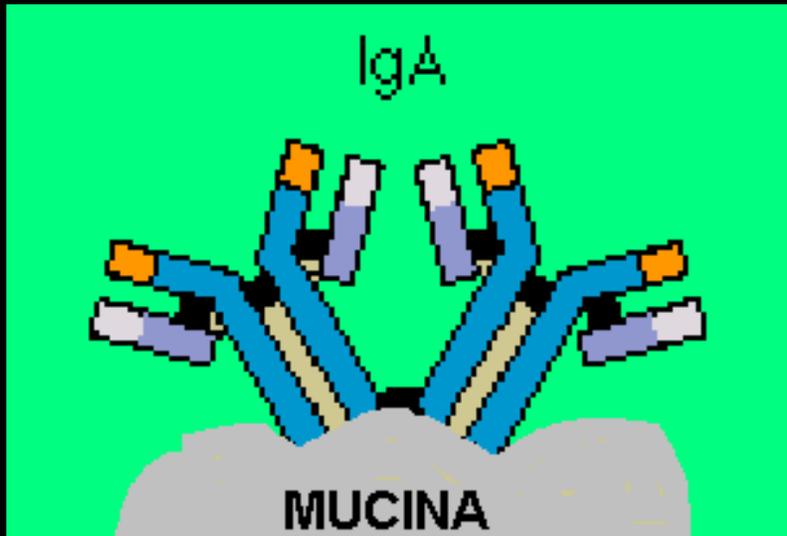
Característica	IgG	IgM	IgA
<b>Opsonización</b>	+++	-	-
<b>↑ Adhesividad del moco</b>	-	-	+++
<b>Activación del C'</b>	+++	+++	-
<b>Neutralización de toxinas</b>	+++	+	++
<b>Paso a través de placenta</b>	+++	-	-
<b>[ ] en mucosas</b>	+	+	+++
<b>[ ] en sangre</b>	+++	+++	+

# Opsonización

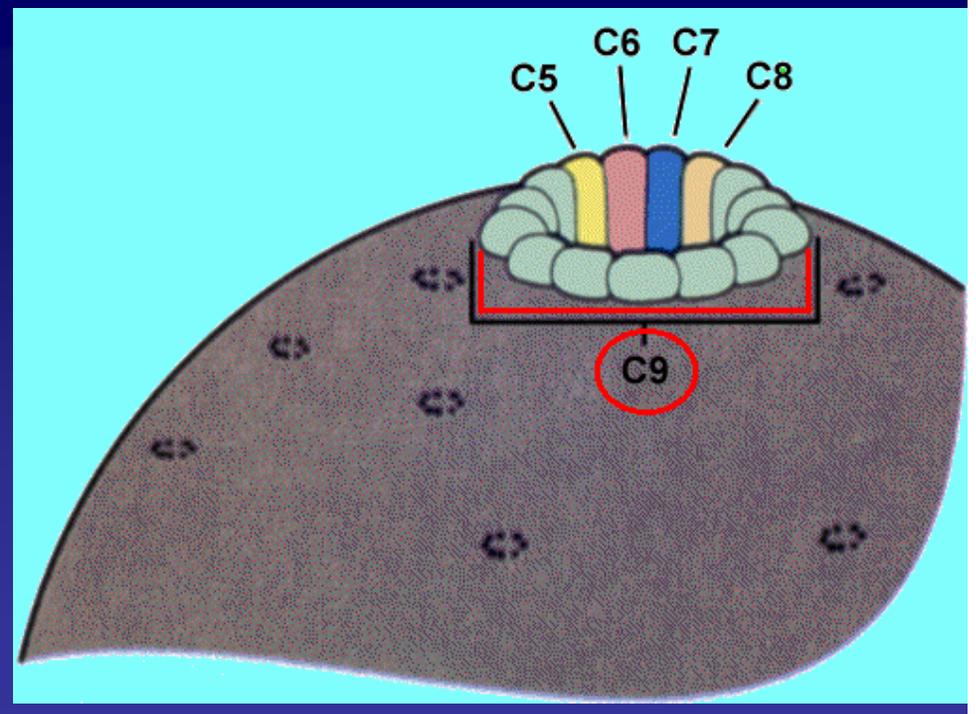
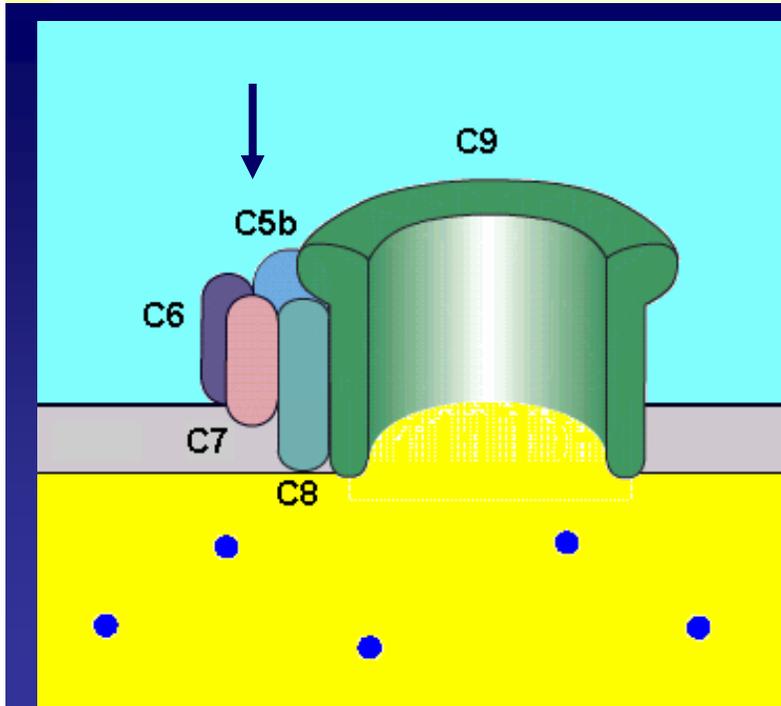
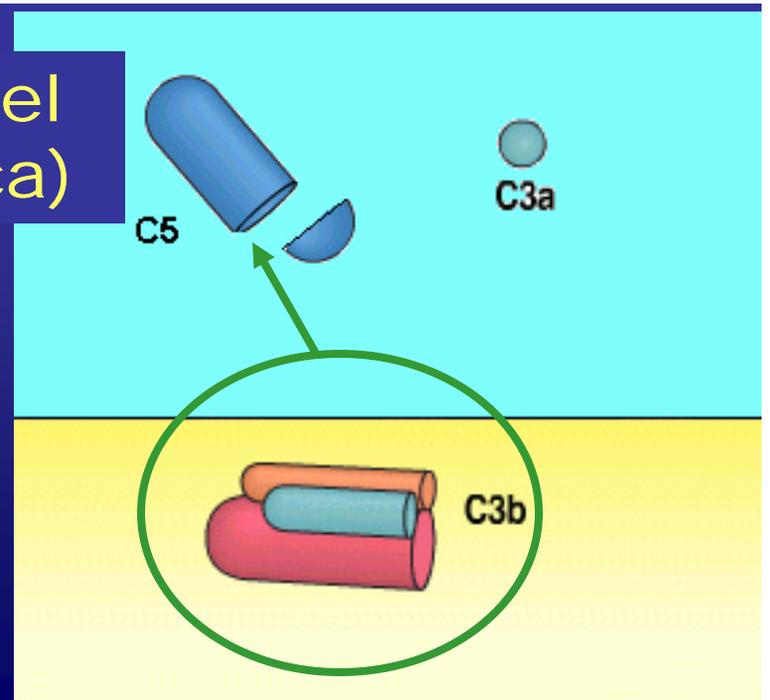
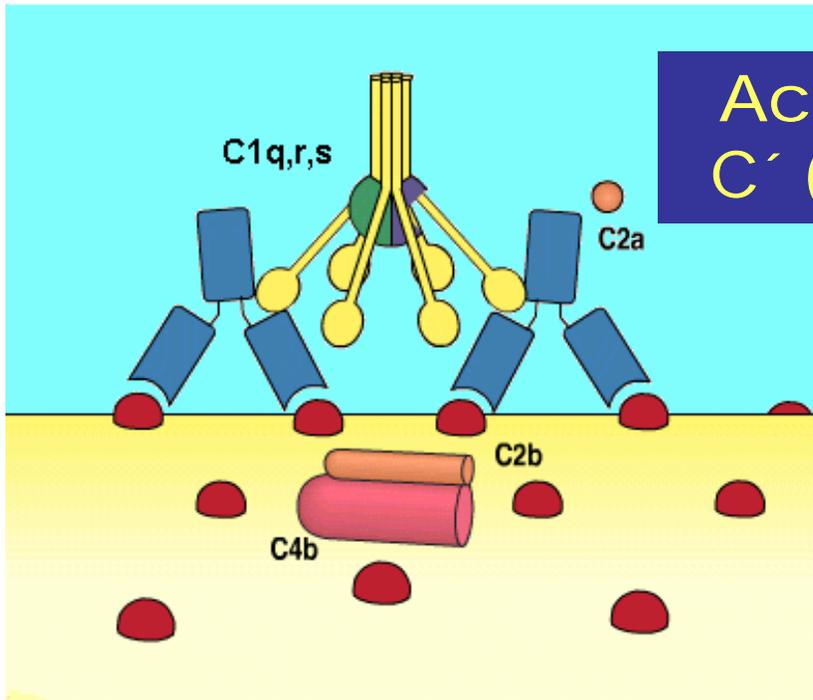


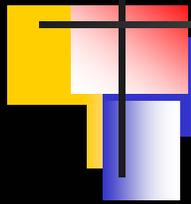


↑ adhesividad  
del moco



# Activación del C' (vía clásica)





## Otros anticuerpos con una función fundamental...

