



Epitelios de Revestimiento

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Programa de Anatomía y Biología del Desarrollo

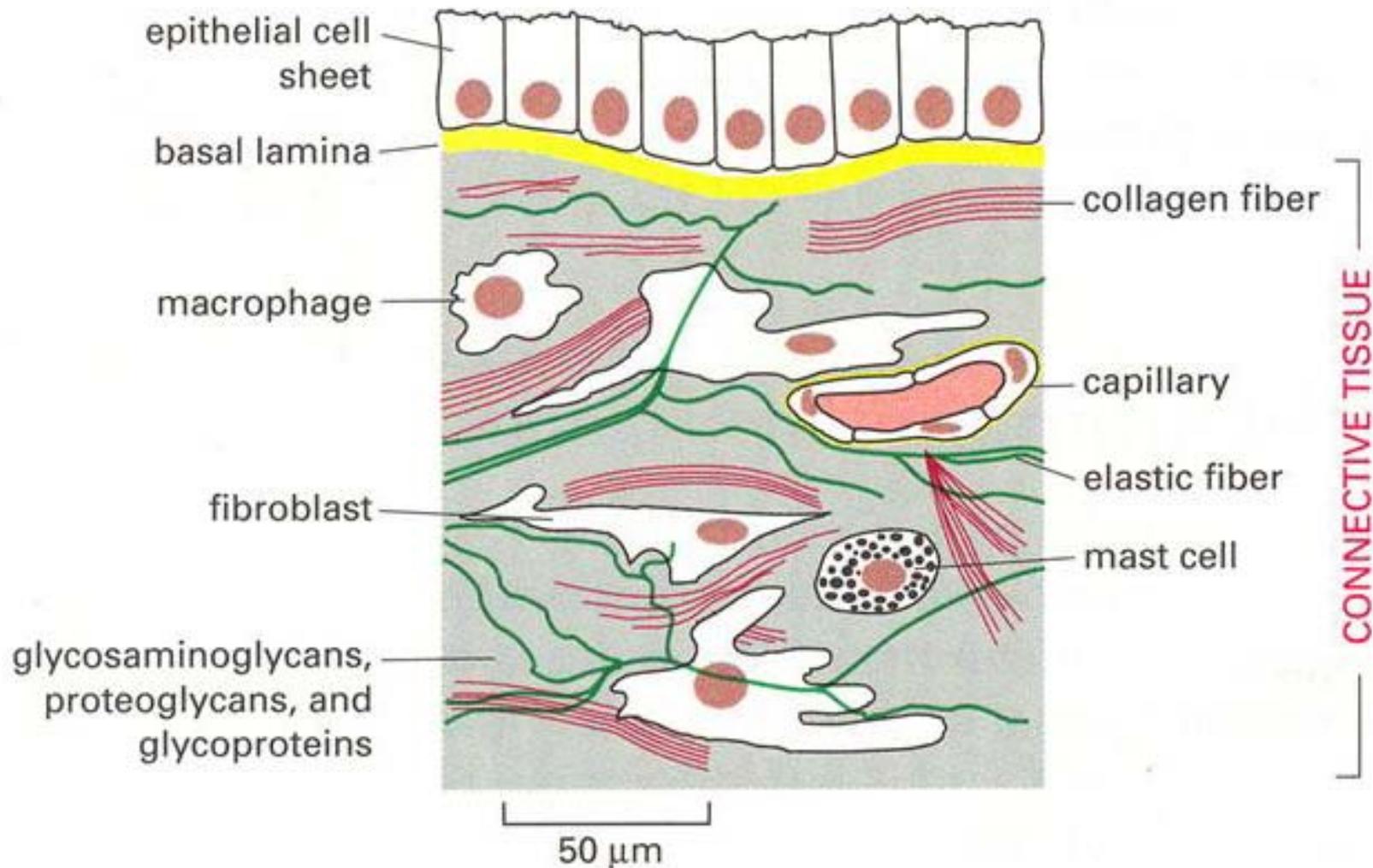
Tejidos básicos

- ◆ Tejido epitelial:
 1. Epitelio de revestimiento
 2. Epitelio glandular

- ◆ Tejido conectivo
- ◆ Tejido muscular
- ◆ Tejido nervioso

Epitelios de revestimiento

- ◆ Tejidos compuestos por células adyacentes; forman láminas
- ◆ Muy poca matriz extracelular (MEC) entre las células
- ◆ Las células cumplen todas una misma función
- ◆ Recubren las superficies internas y externas del organismo
- ◆ Derivan de las tres capas germinativas embrionarias

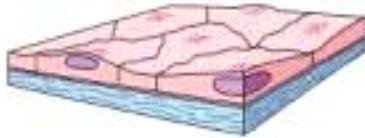


◆ Tej. AVASCULAR

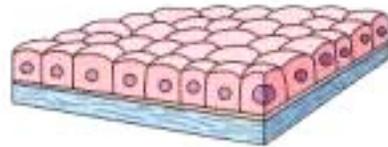
◆ Tej. Conectivo subyacente

◆ Membrana basal entre epitelio y tejido conectivo

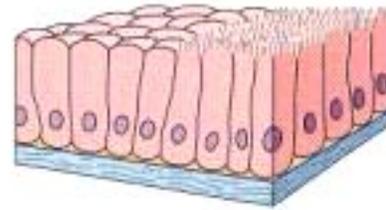
Simple



Escamoso

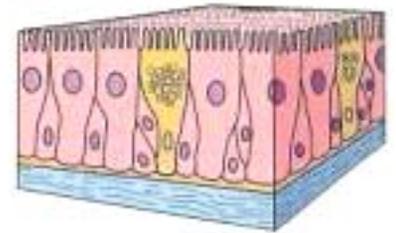


Cuboidal



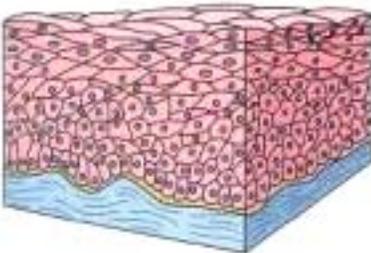
Cilindrico

Seudoestratificado

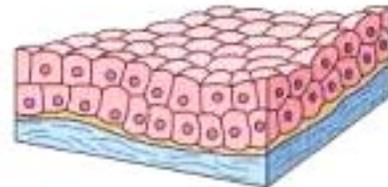


Cilindrico seudoestratificado

Estratificado

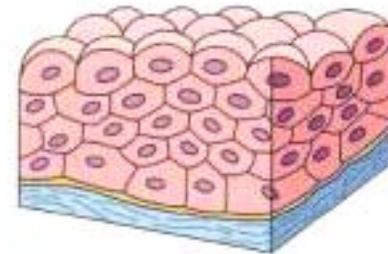


Escamoso no queratinizado

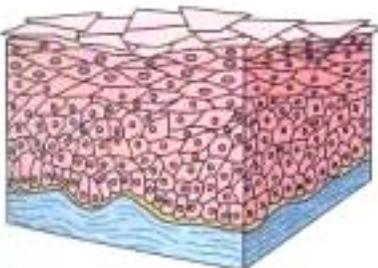


Cuboidal

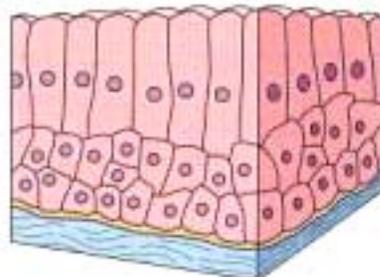
Transicional



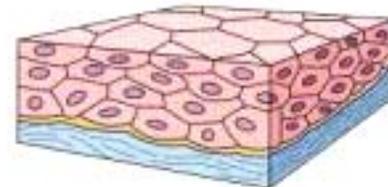
Transicional (relajado)



Queratinizado



Cilindrico

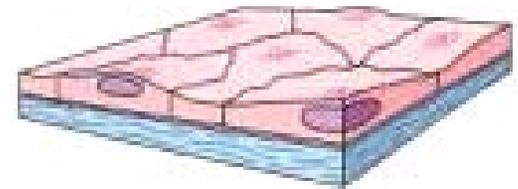
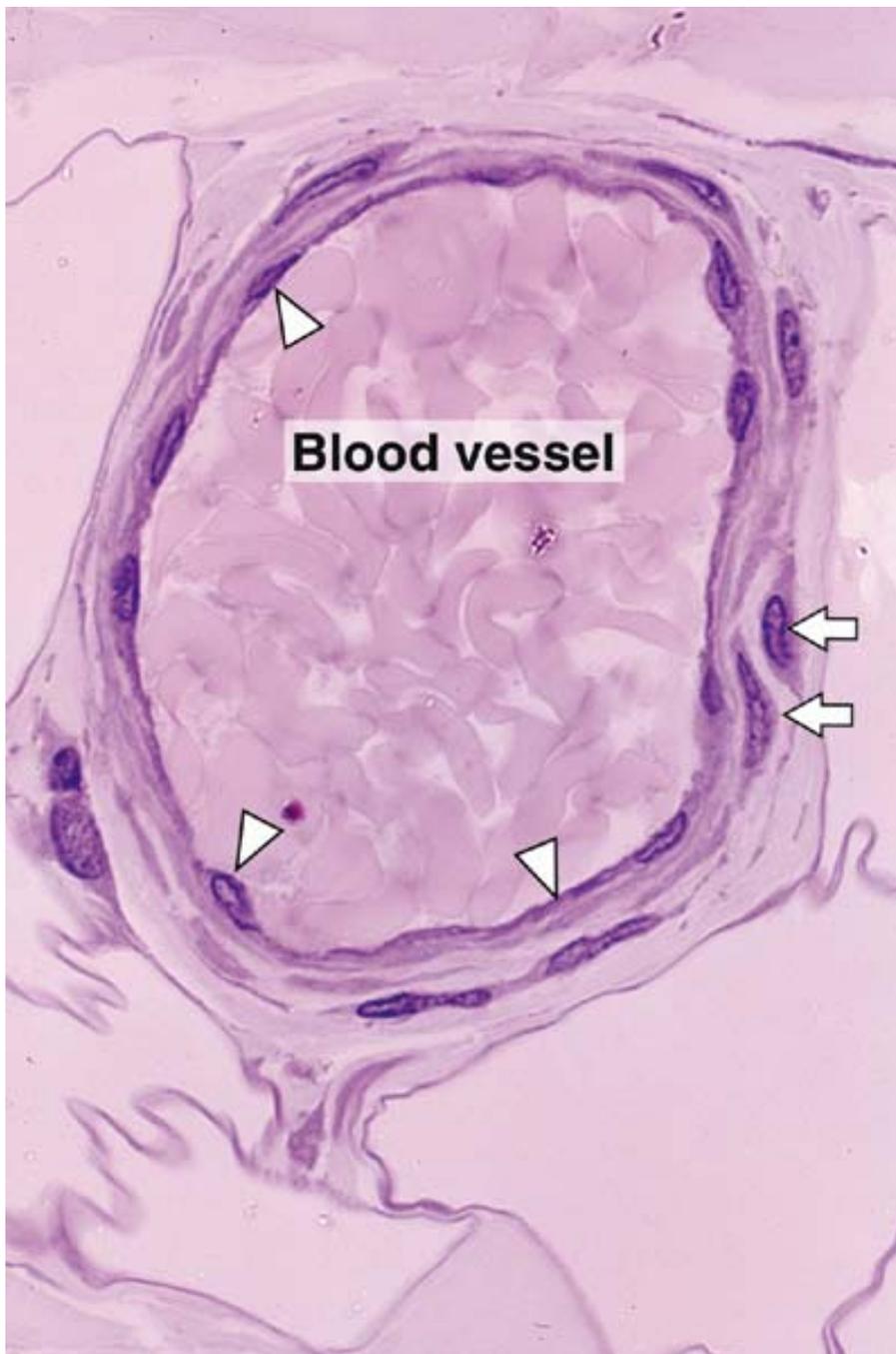


Transicional (distendido)

Epitelio de revestimiento

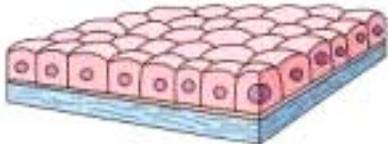
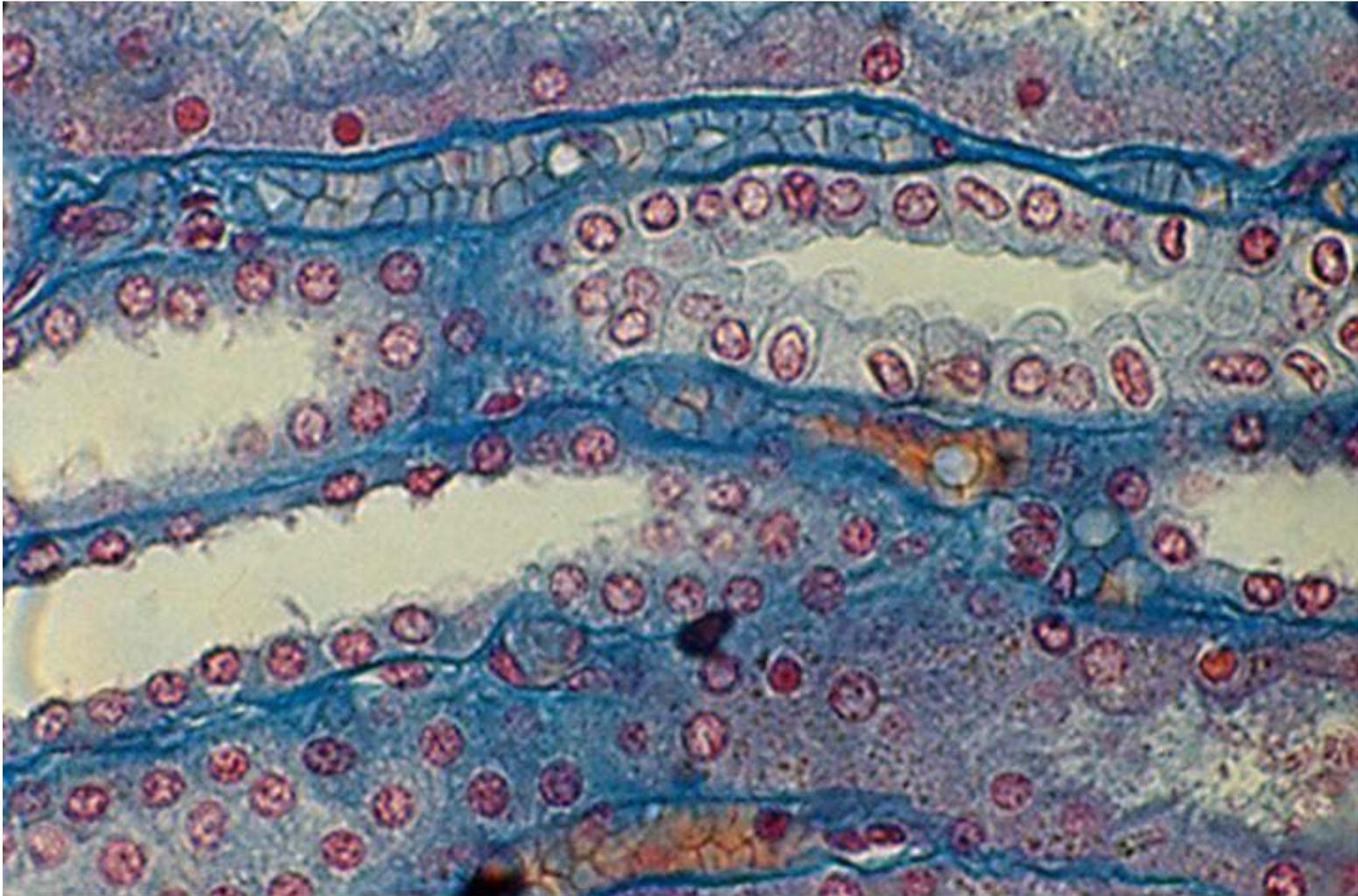
Funciones:

- ◆ Protección
- ◆ Barrera
- ◆ Transporte
- ◆ Absorción
- ◆ Secreción
- ◆ Sensorial

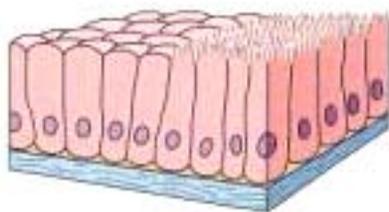
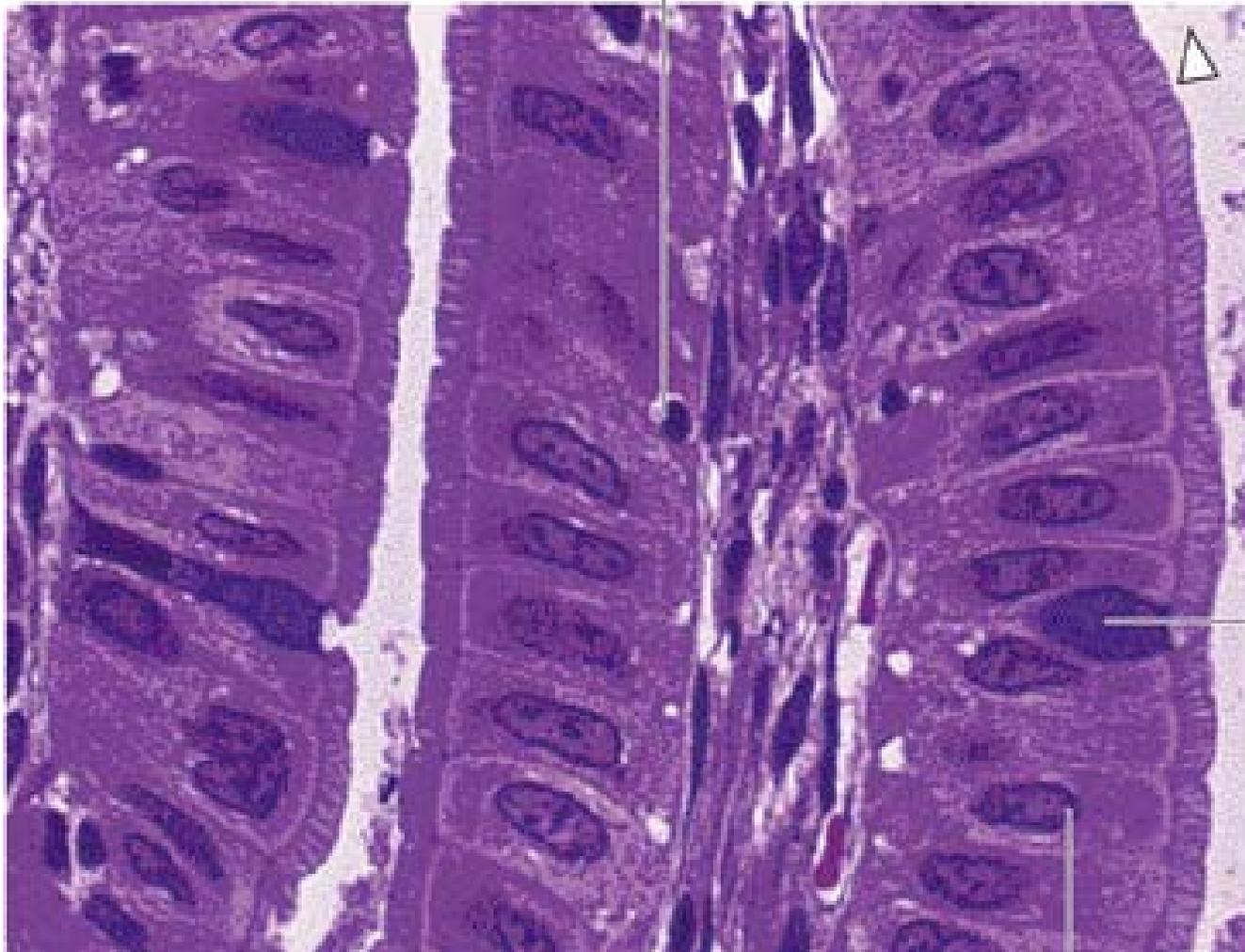


◆ Endotelio

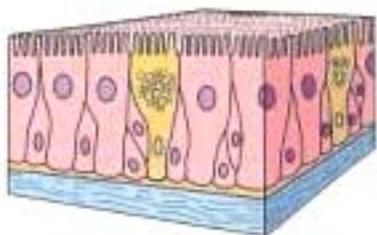
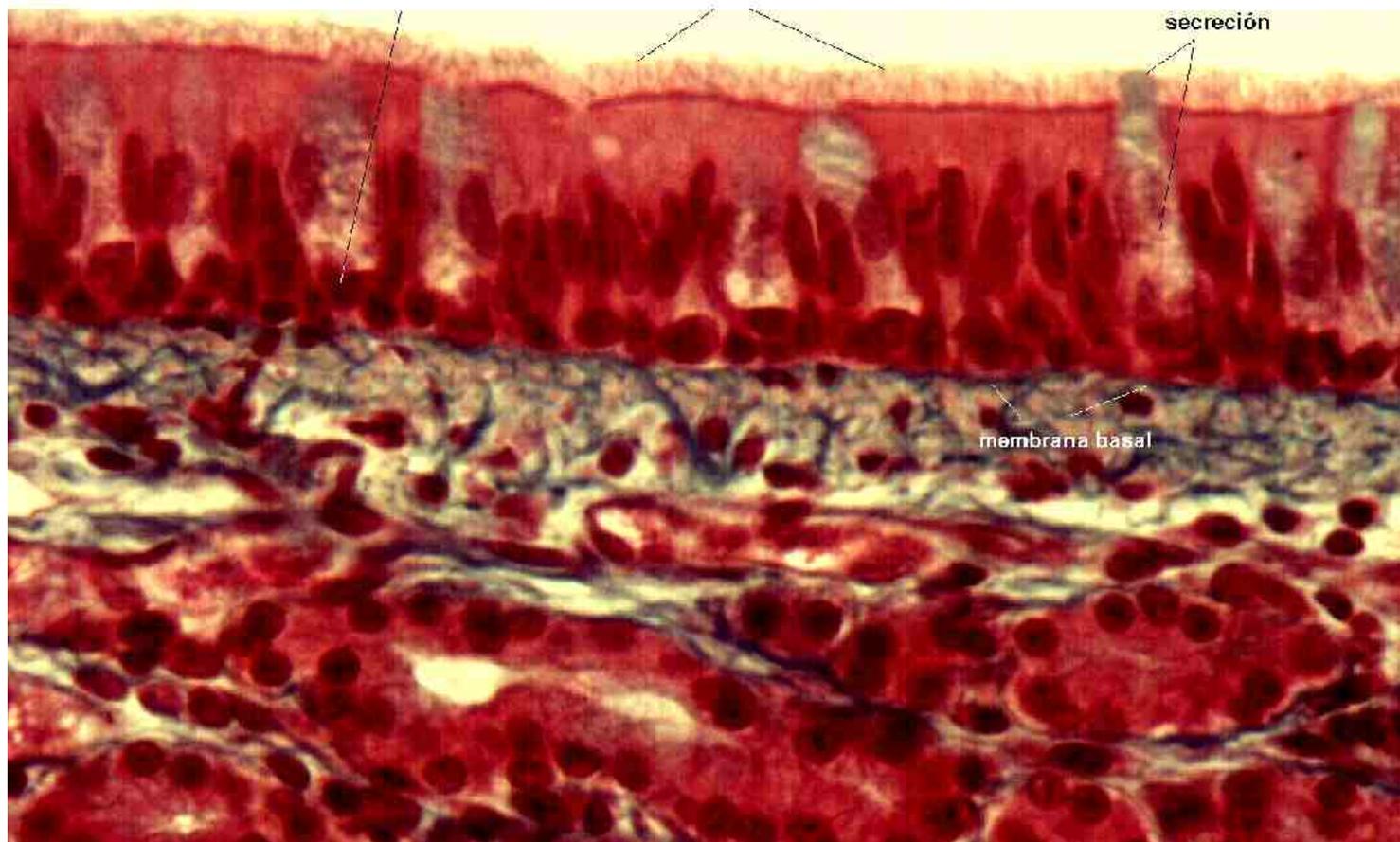
◆ Mesotelio



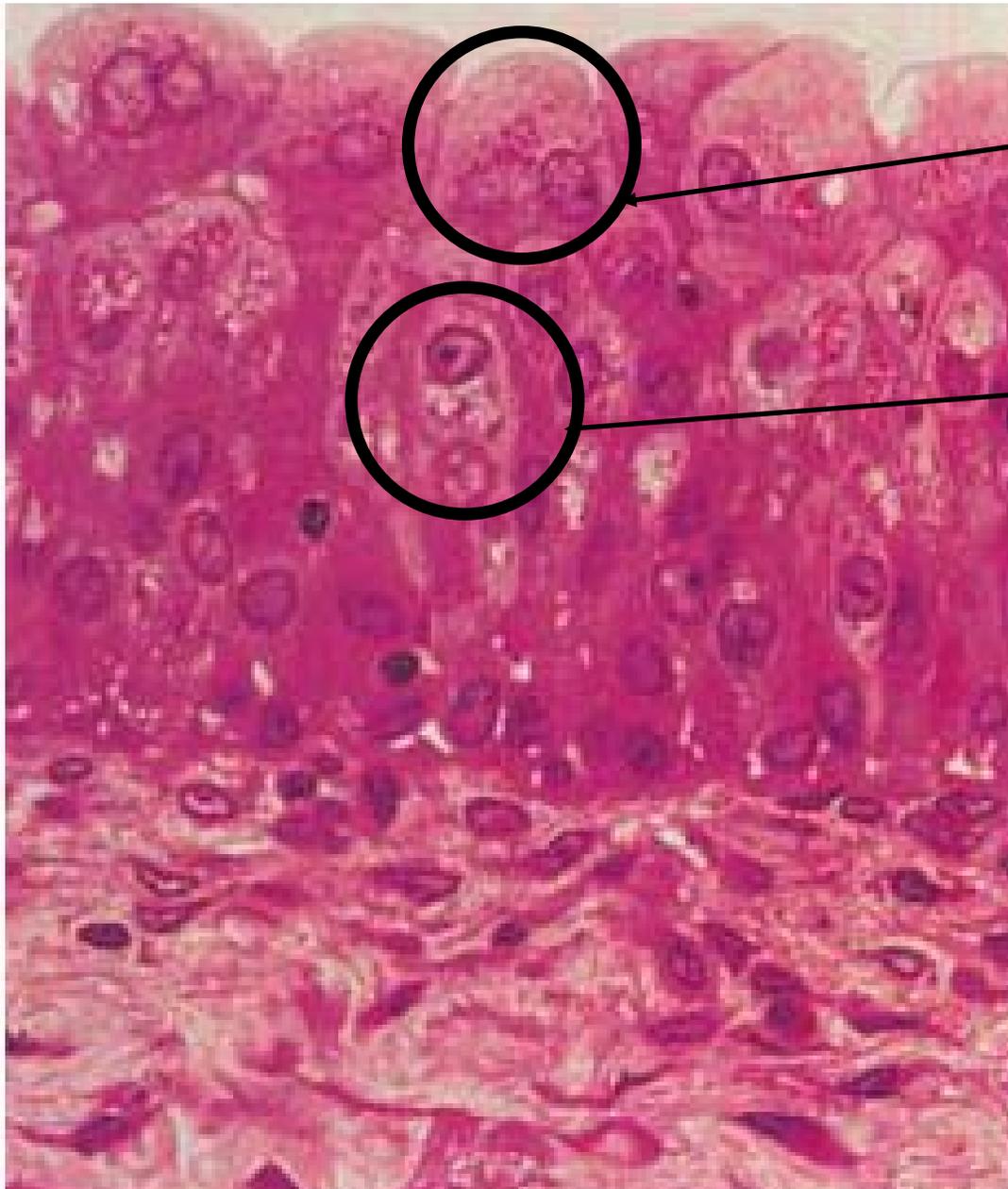
- ◆ Ductos glandulares
- ◆ Túbulos renales
- ◆ Superficie ovario



- ◆ Intestino
- ◆ Utero

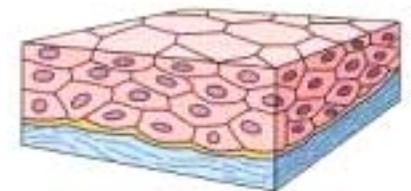
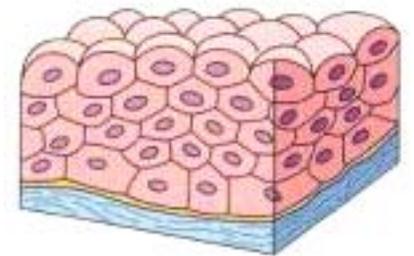


- ◆ Tráquea
- ◆ Bronquios

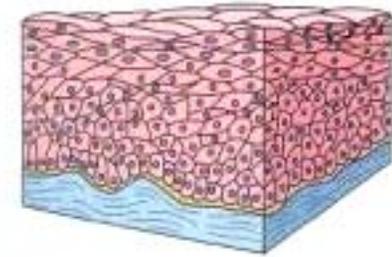
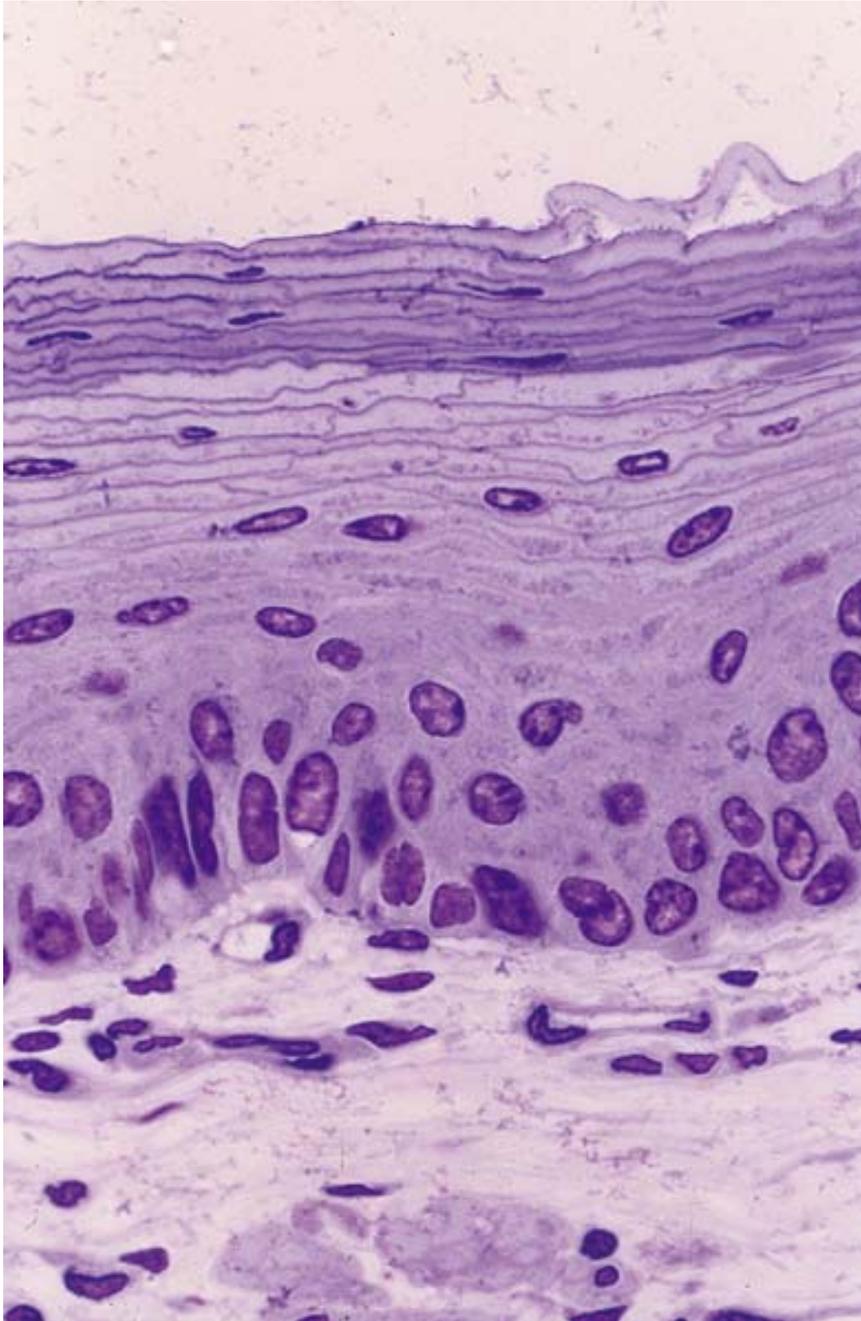


Células
"paragua"

Células
"raqueta"

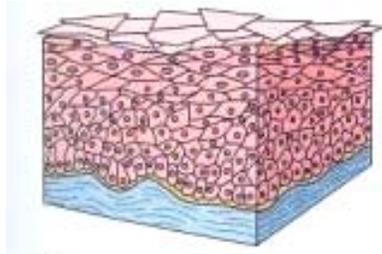
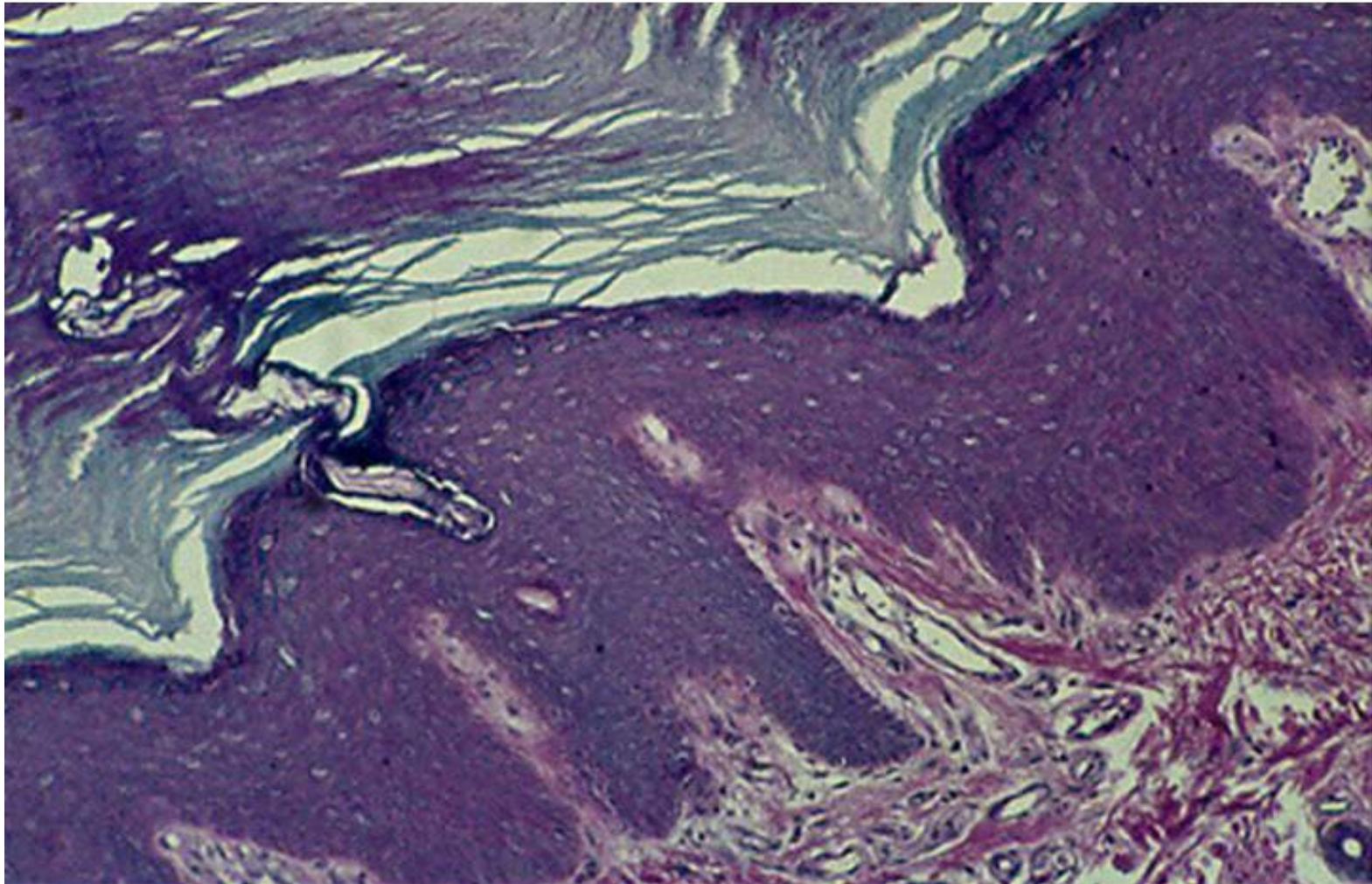


◆ Urotelio

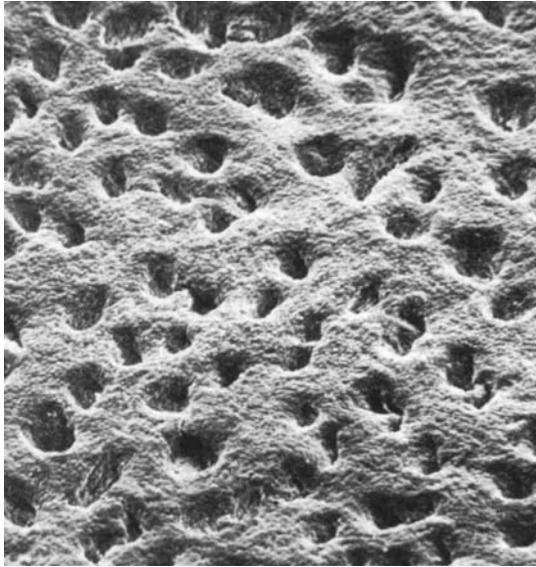
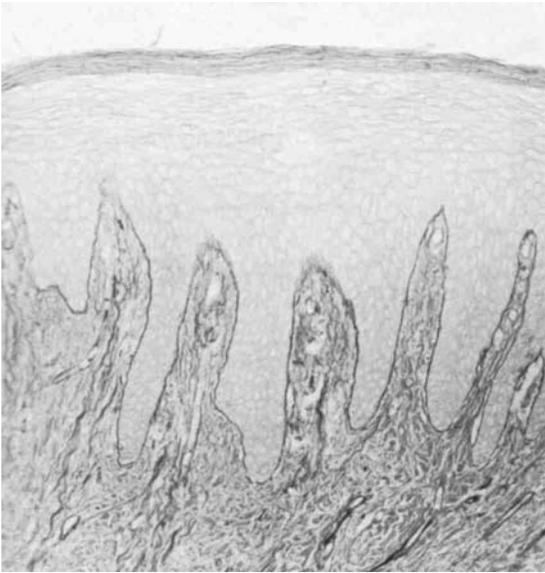


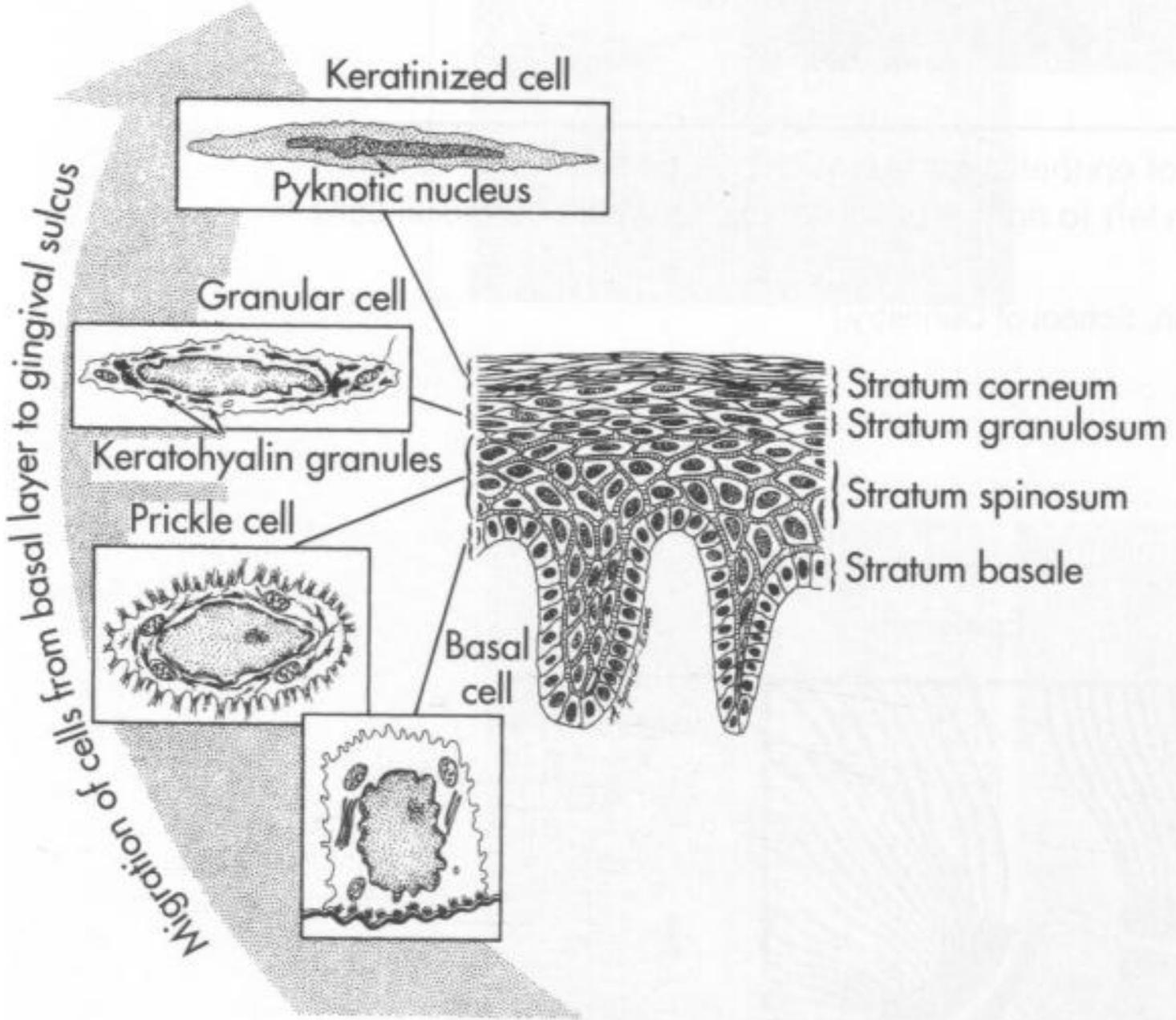
◆ Vagina

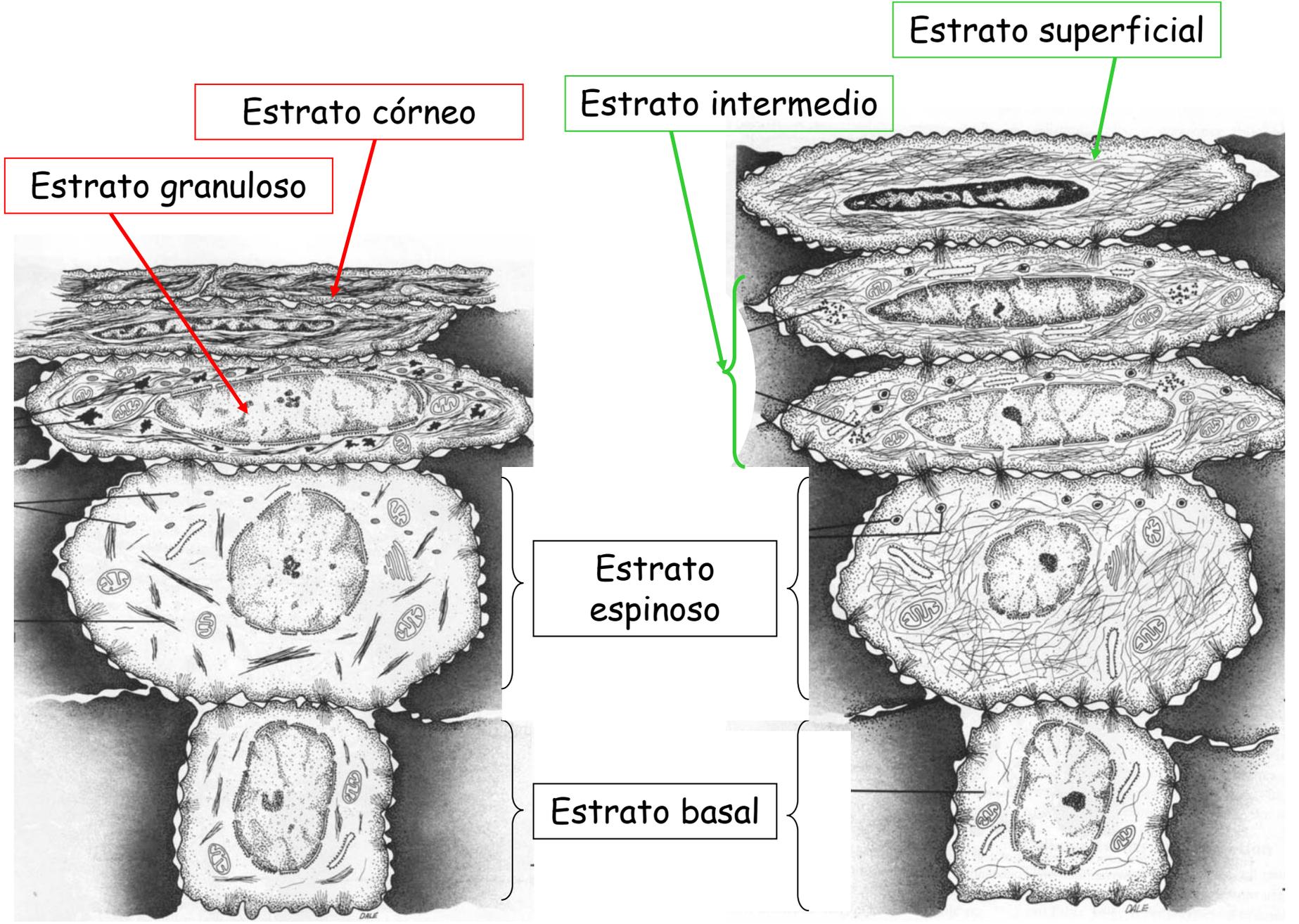
◆ Cavidad oral



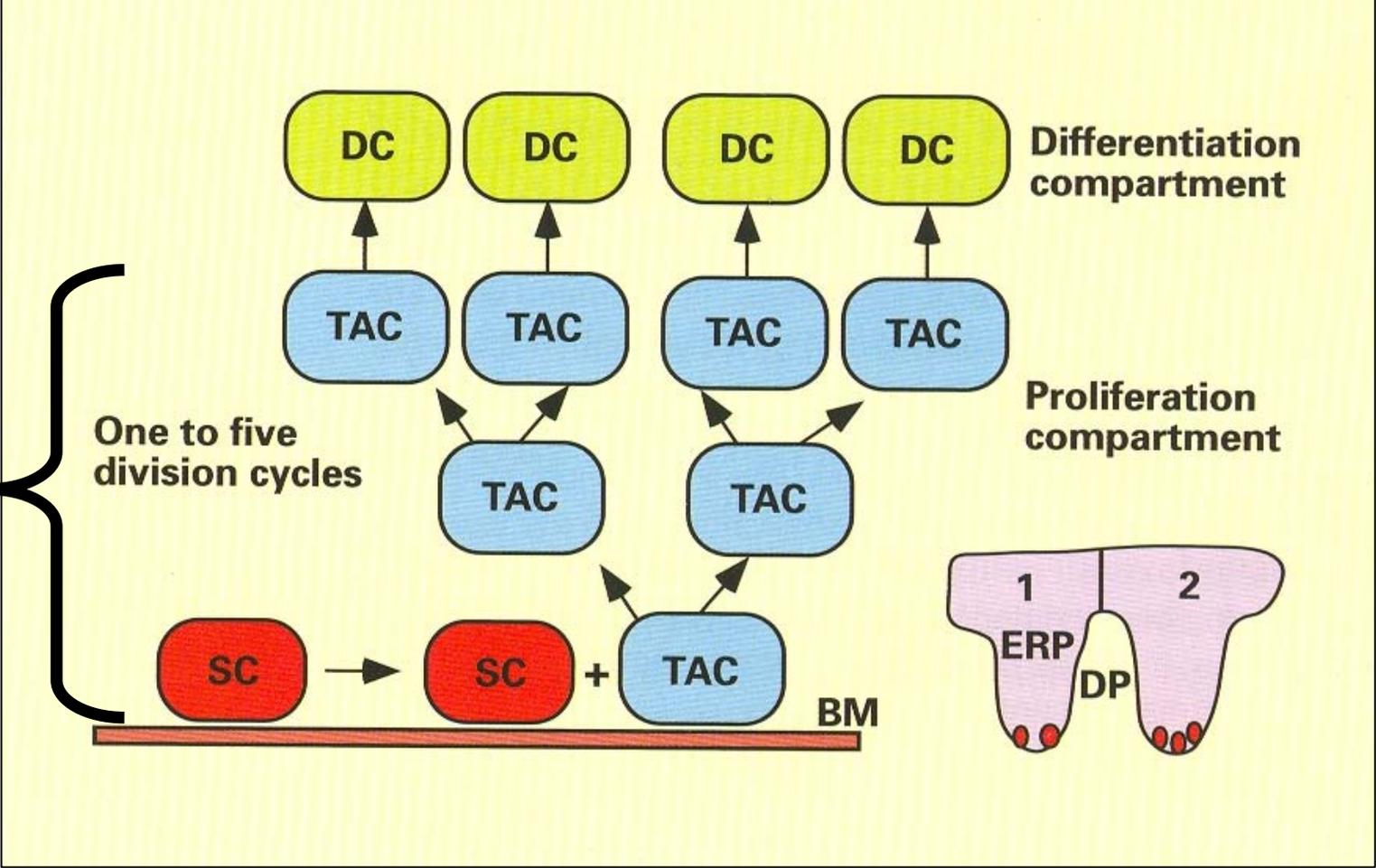
◆ Piel

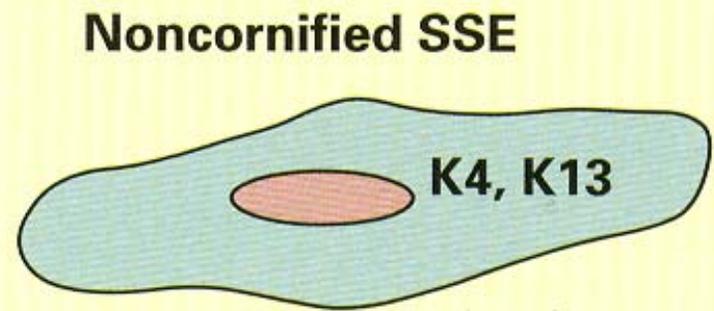
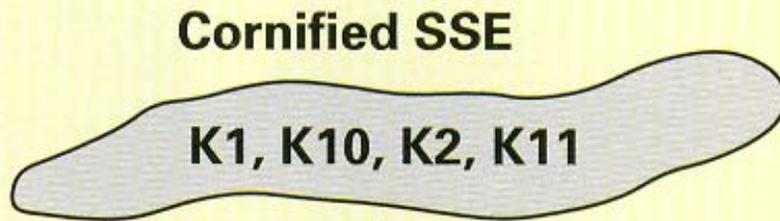






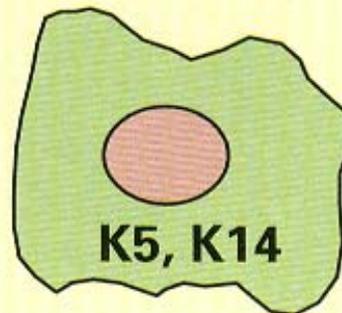
Células del estrato basal



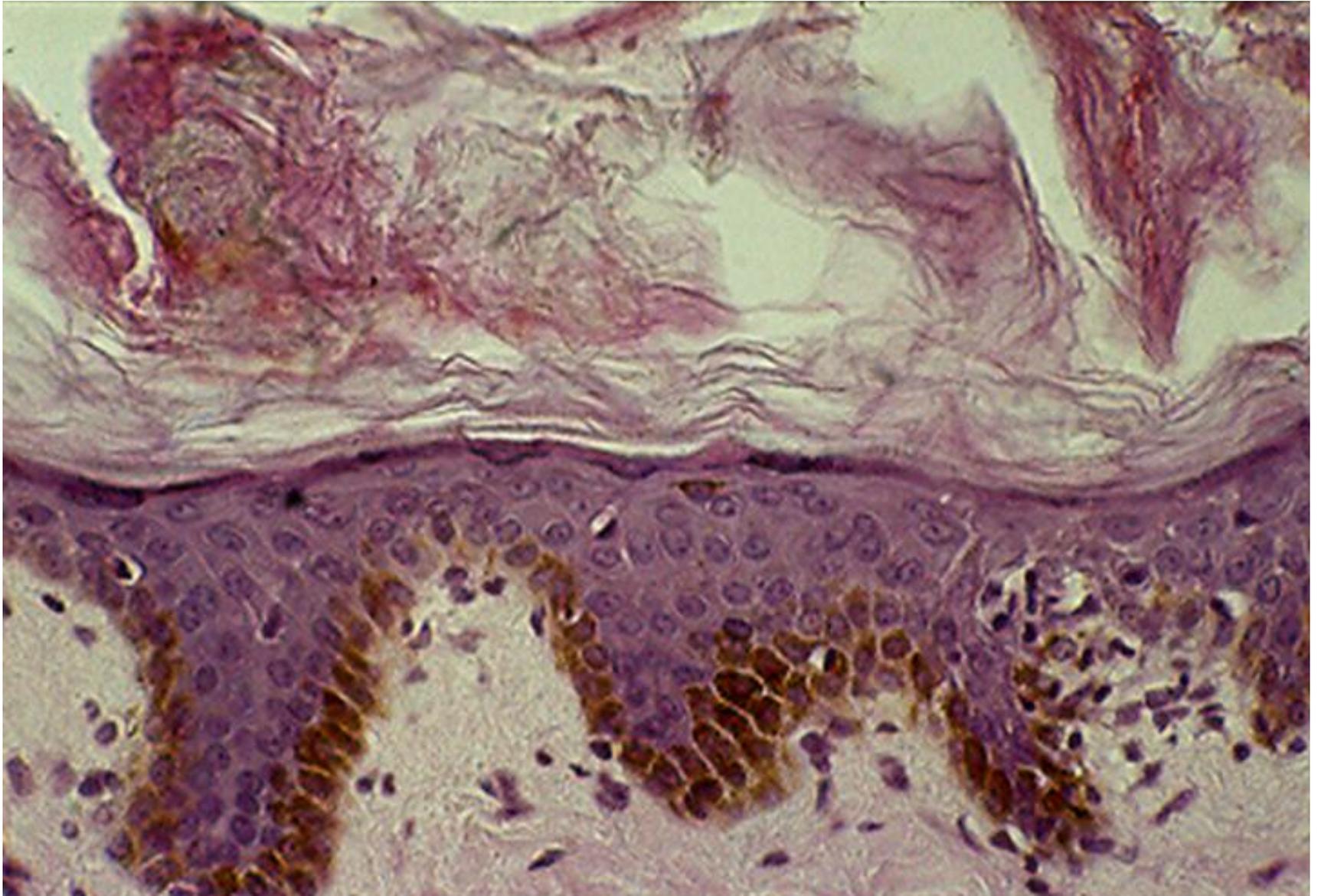


TGase-K
MCG
Loricrin
Filaggrin
Involucrin

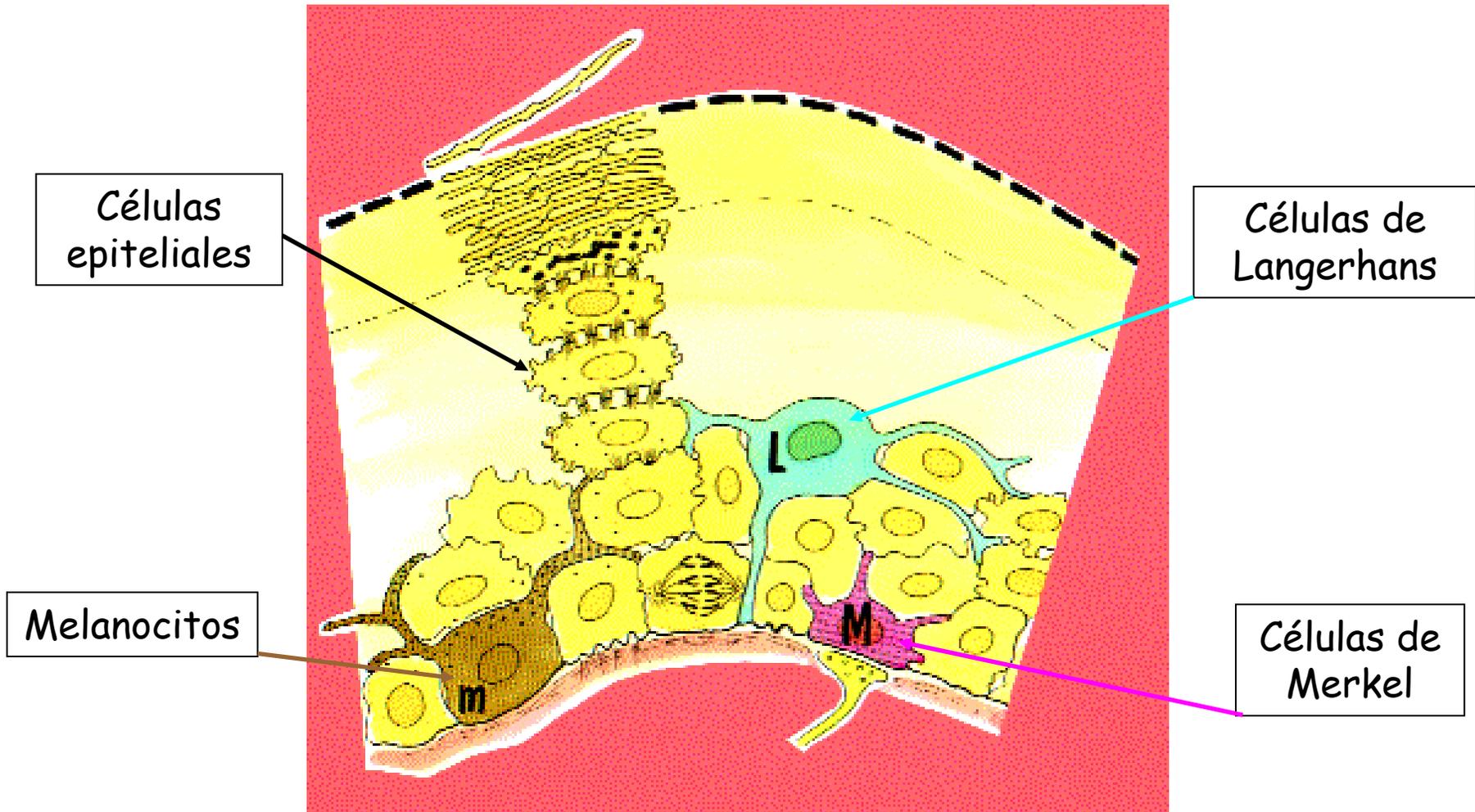
(MCG)
Loricrin
Involucrin
TGase-K



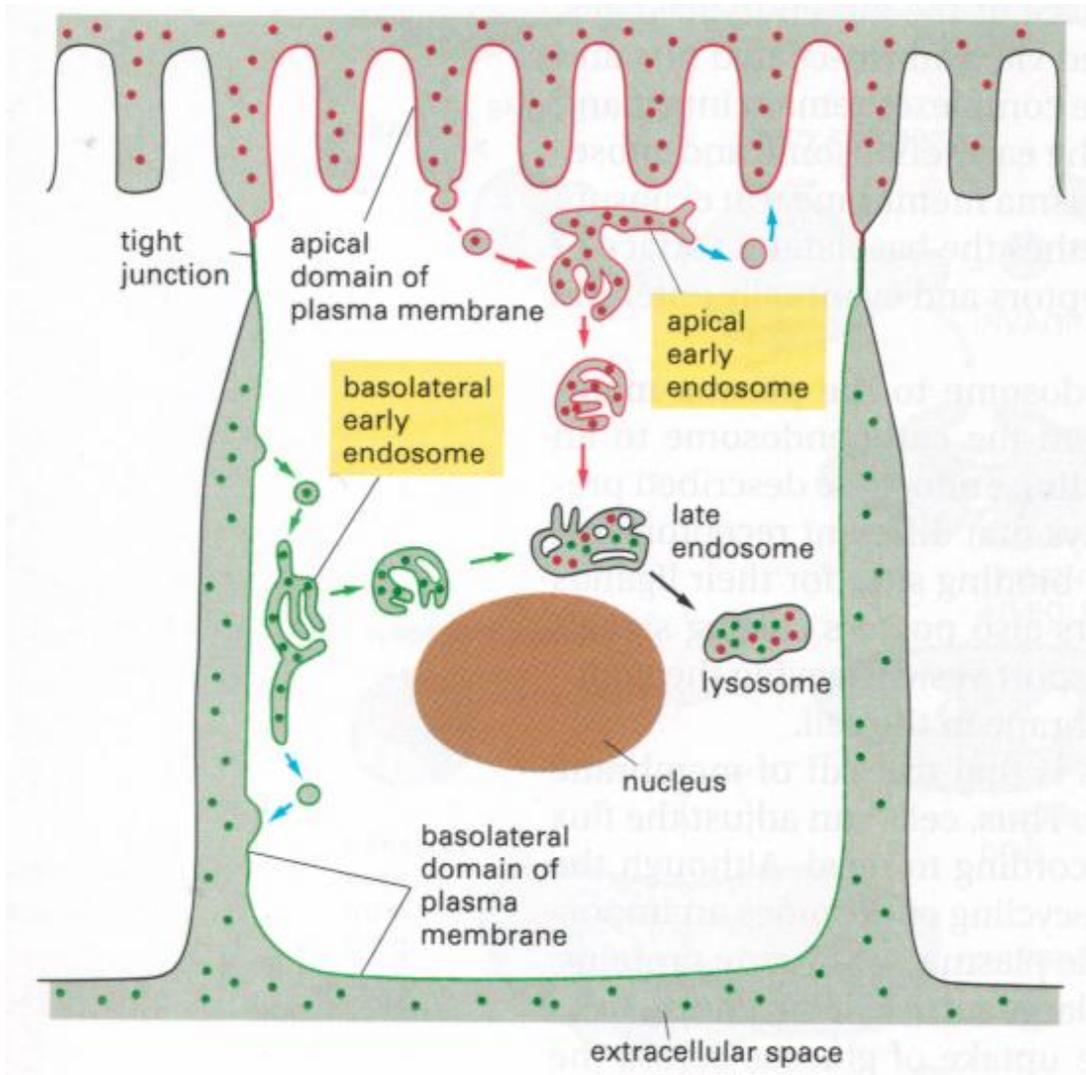
Basal cell



Tipos celulares



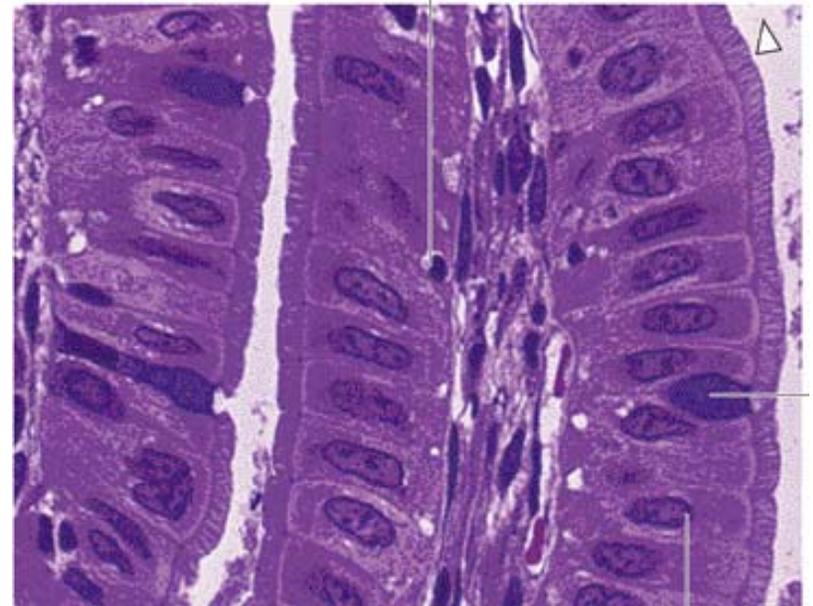
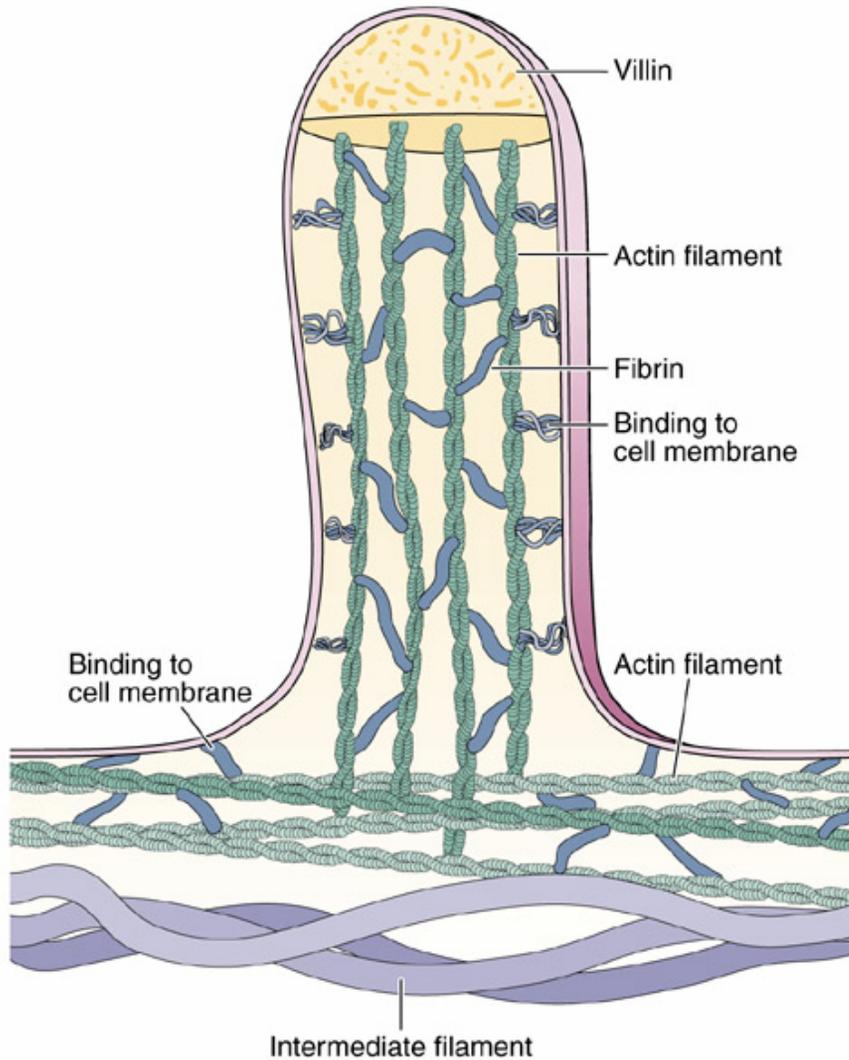
Polaridad celular



Dominio apical

Dominio basolateral

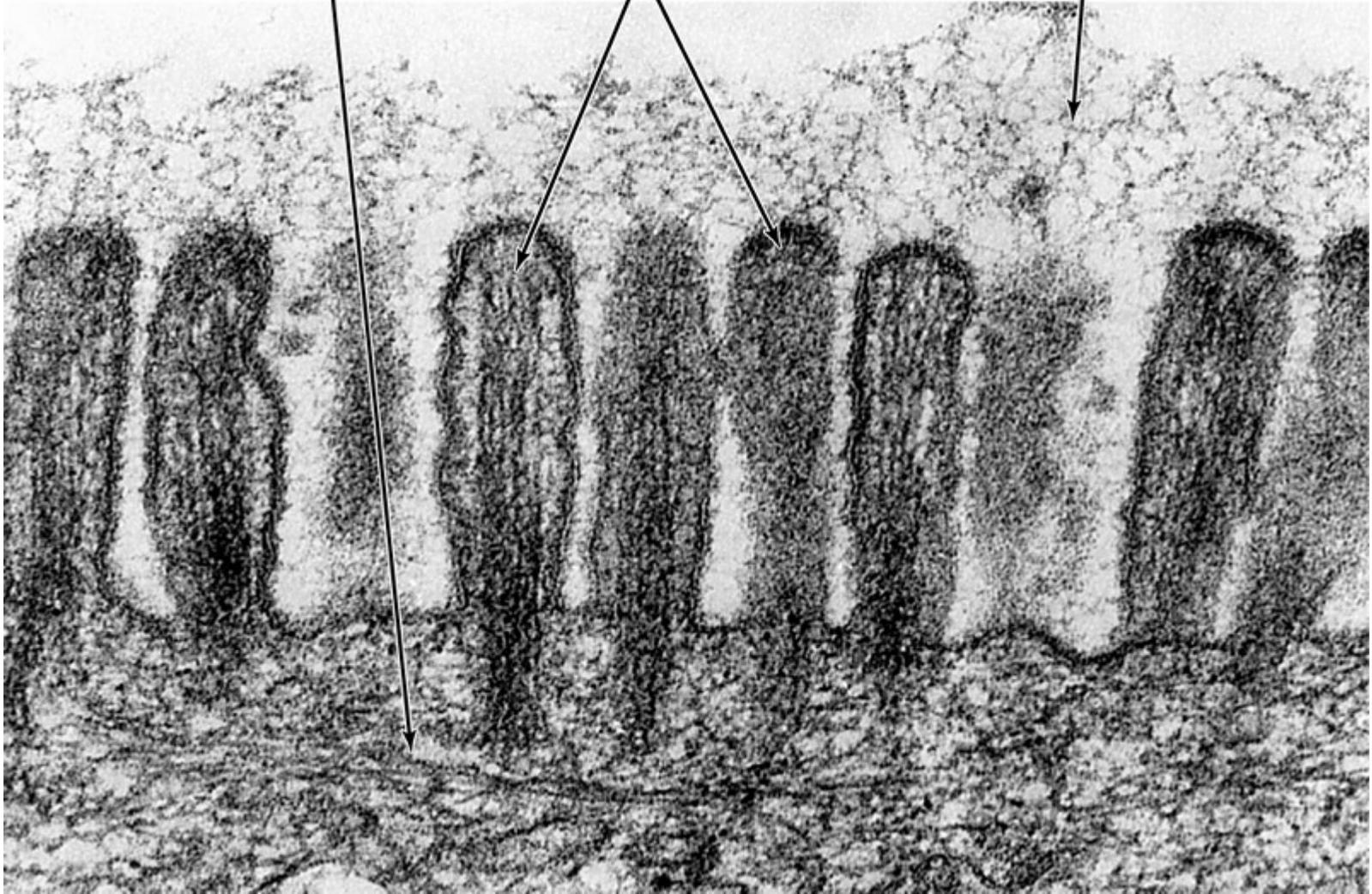
Microvellosidades



Terminal web

Microvilli

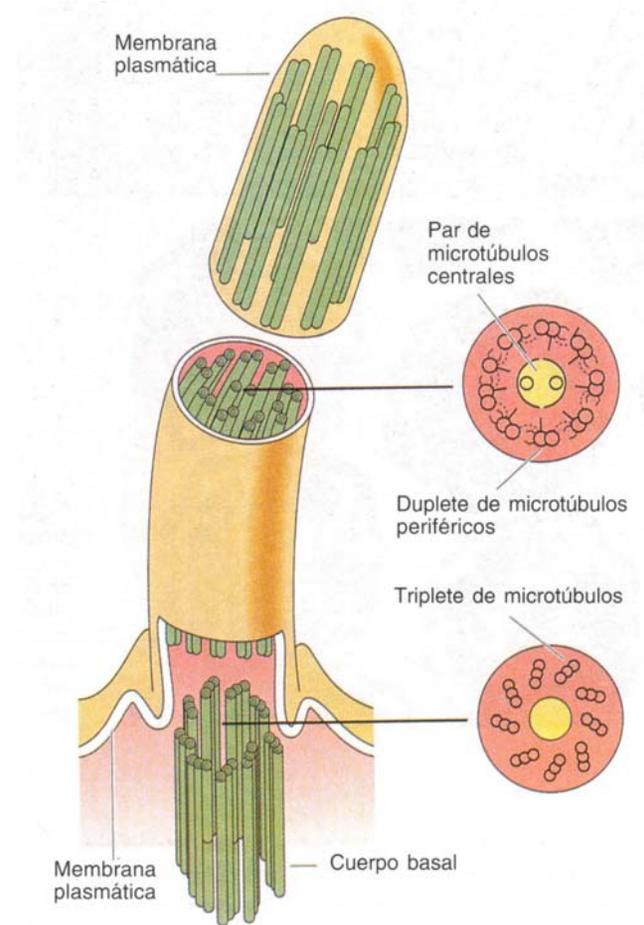
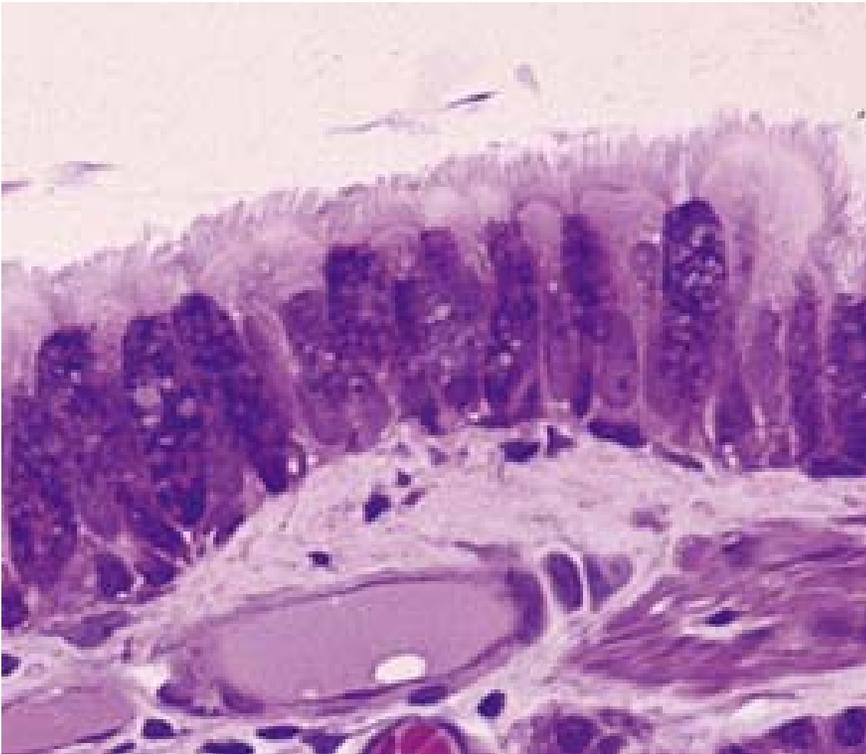
Cell coat

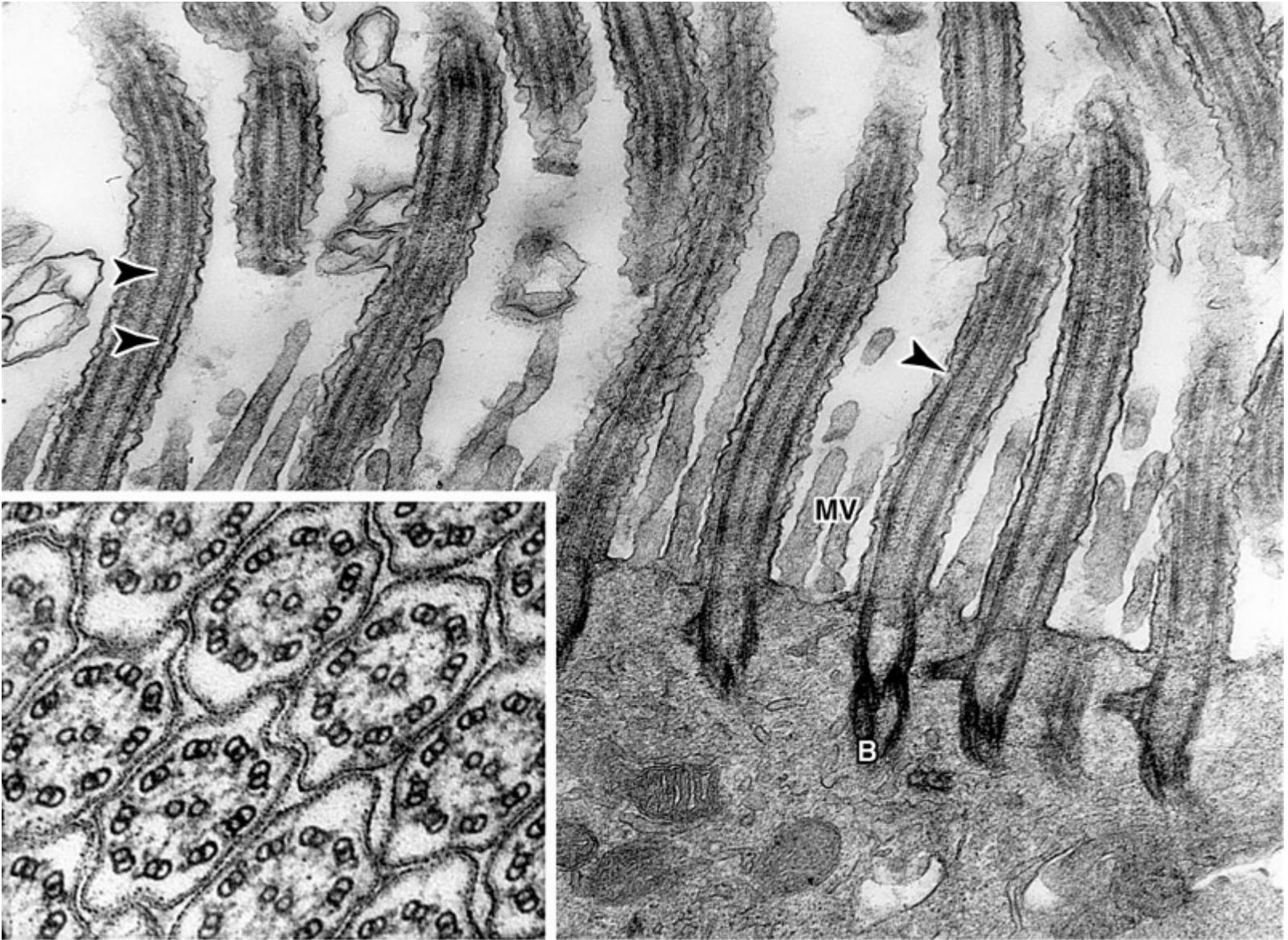


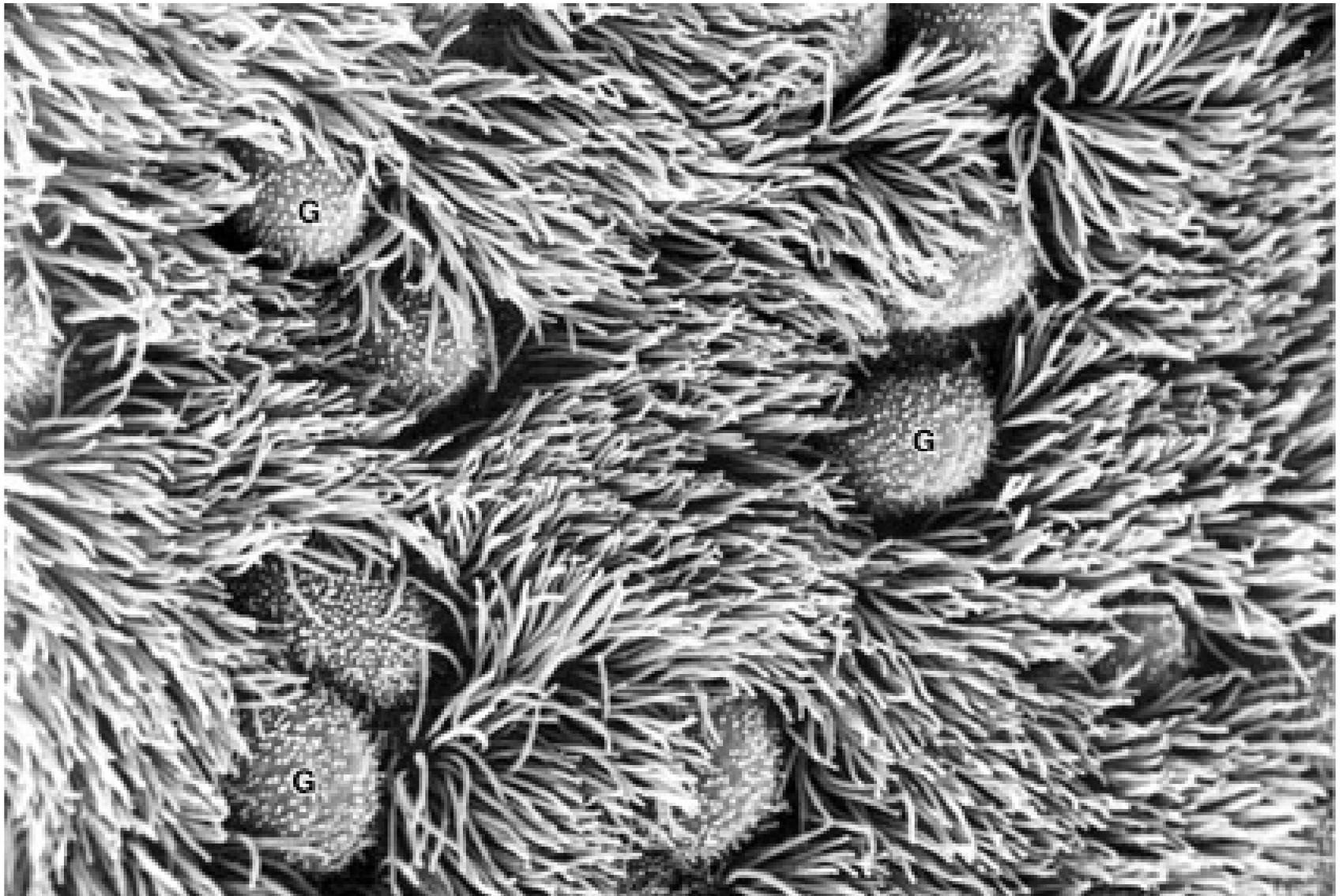
Estereocilios

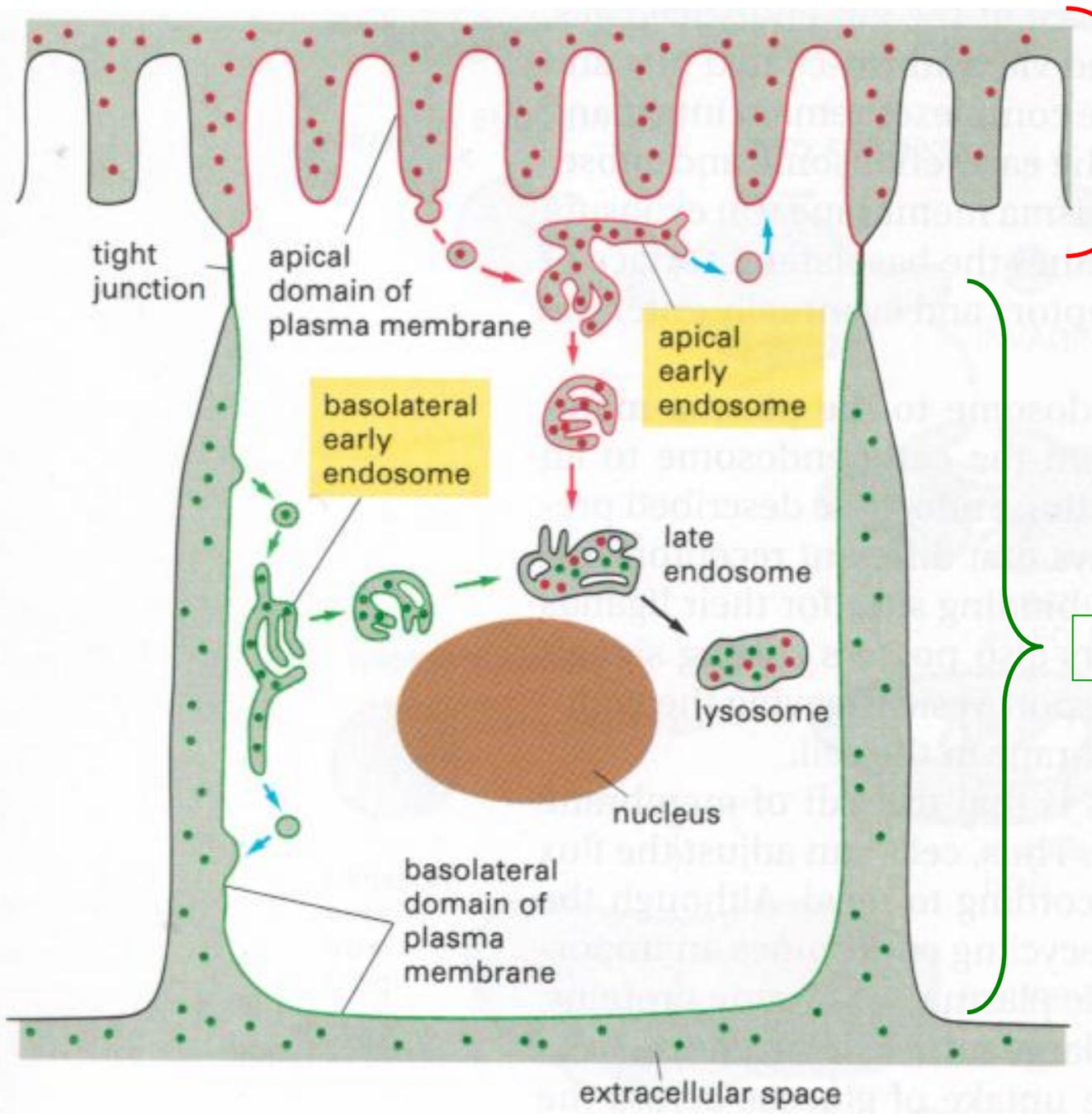


Cilios



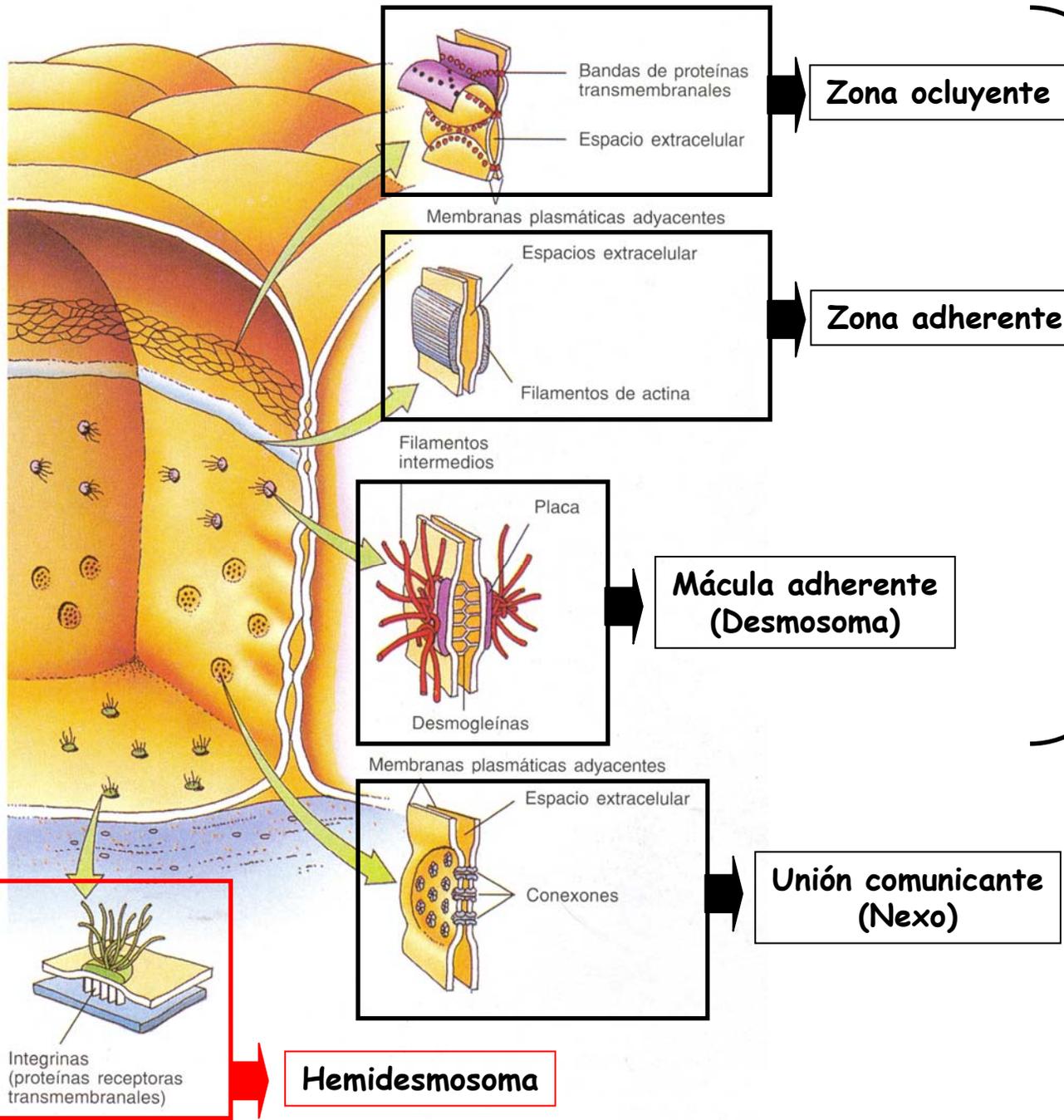




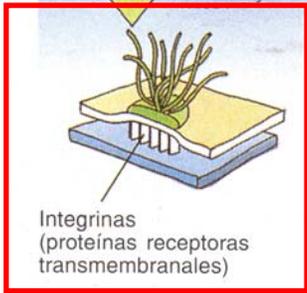


Dominio apical

Dominio basolateral

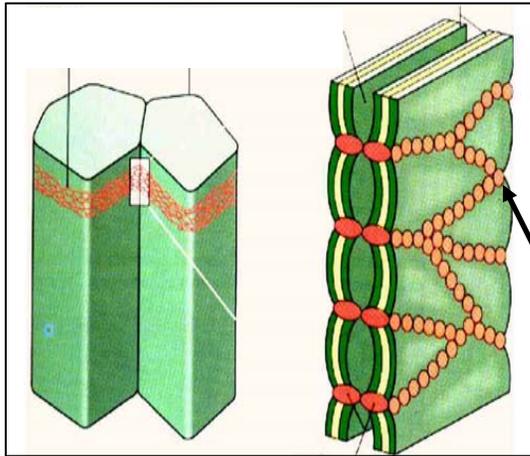


COMPLEJO DE UNIÓN EPITELIAL

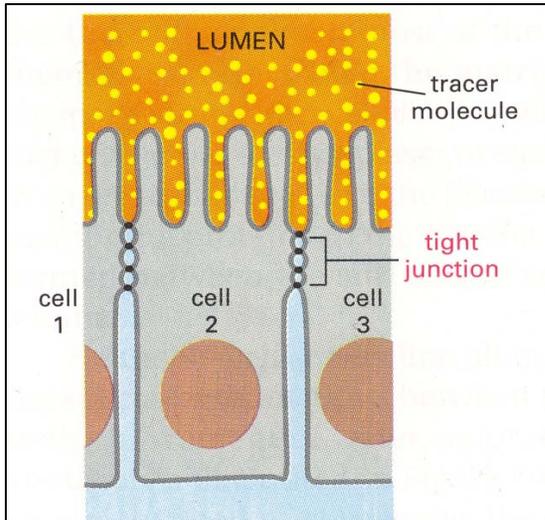


Hemidesmosoma

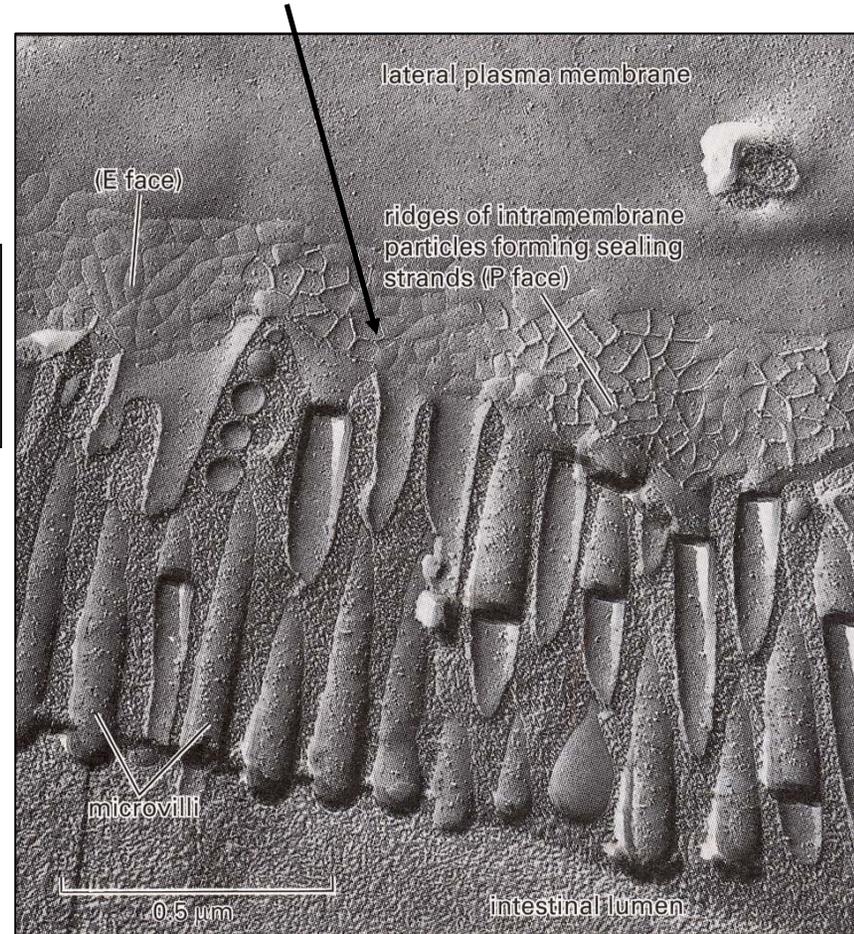
Zona ocluyente



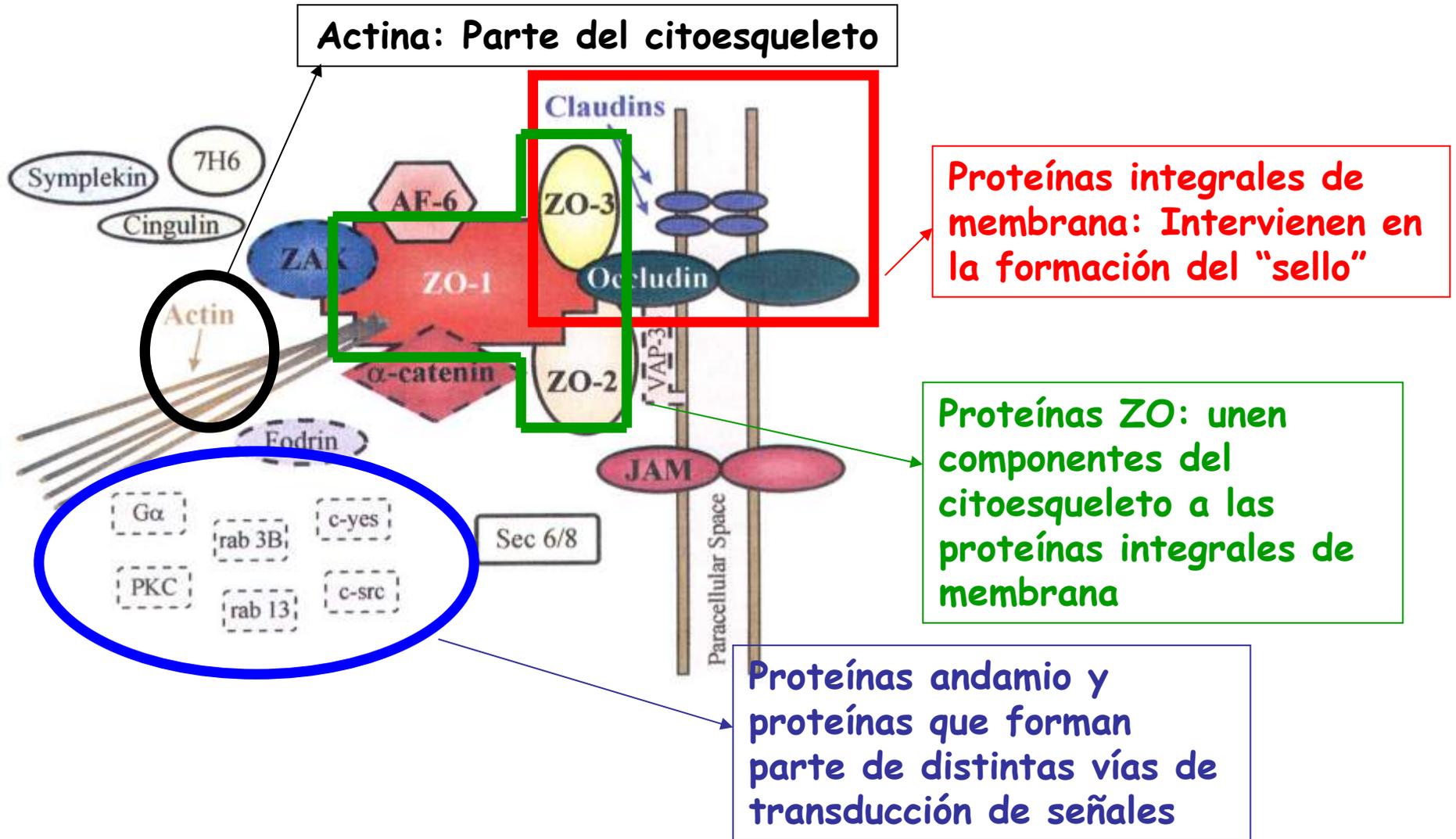
Proteínas de transmembrana (Ocludina, Claudina)



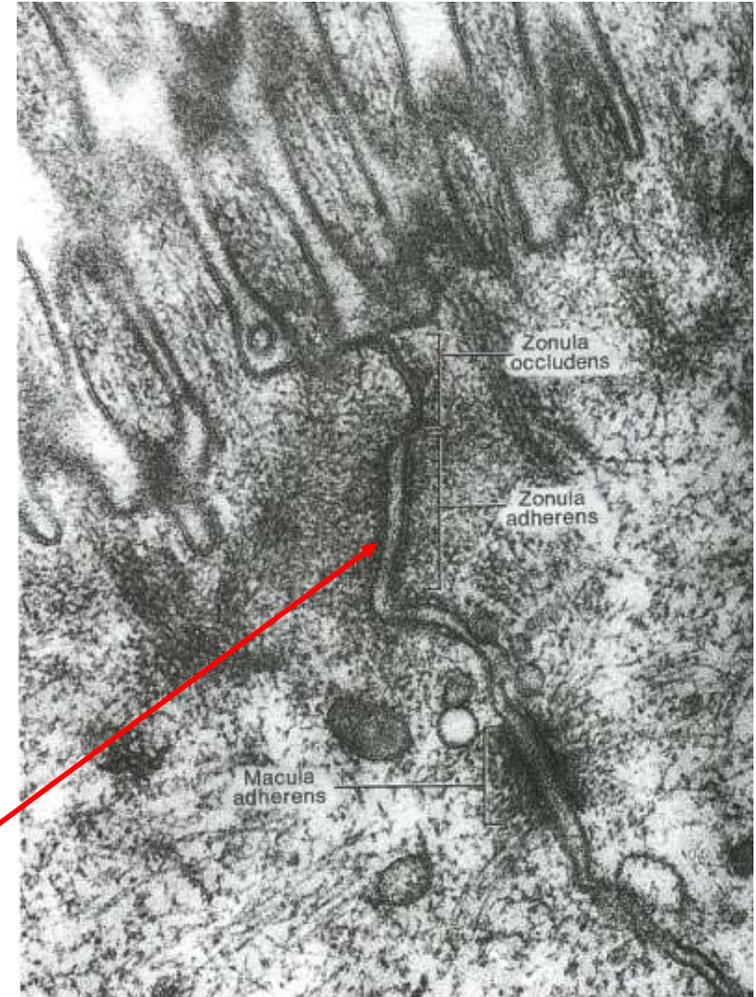
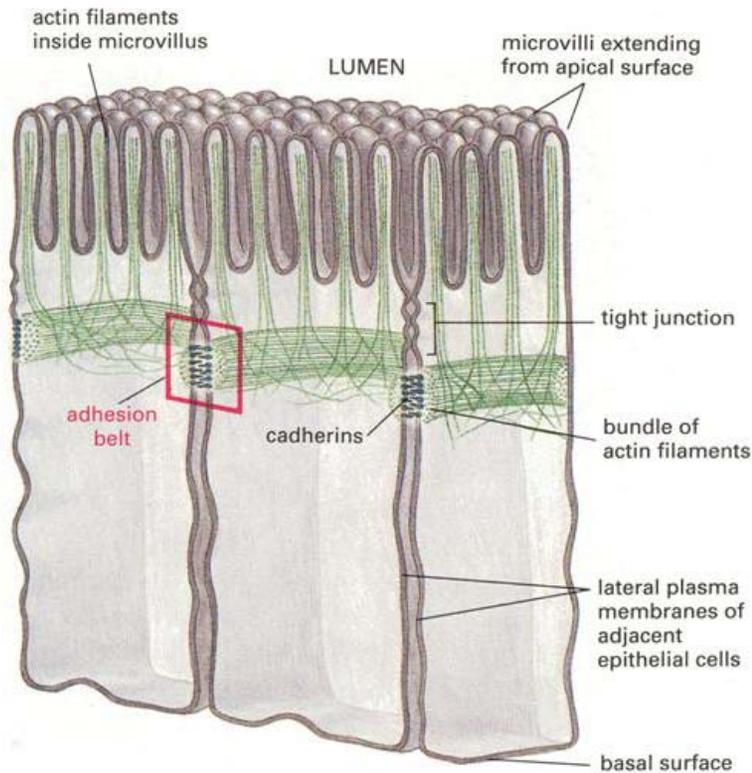
Zona ocluyente



Zona ocluyente

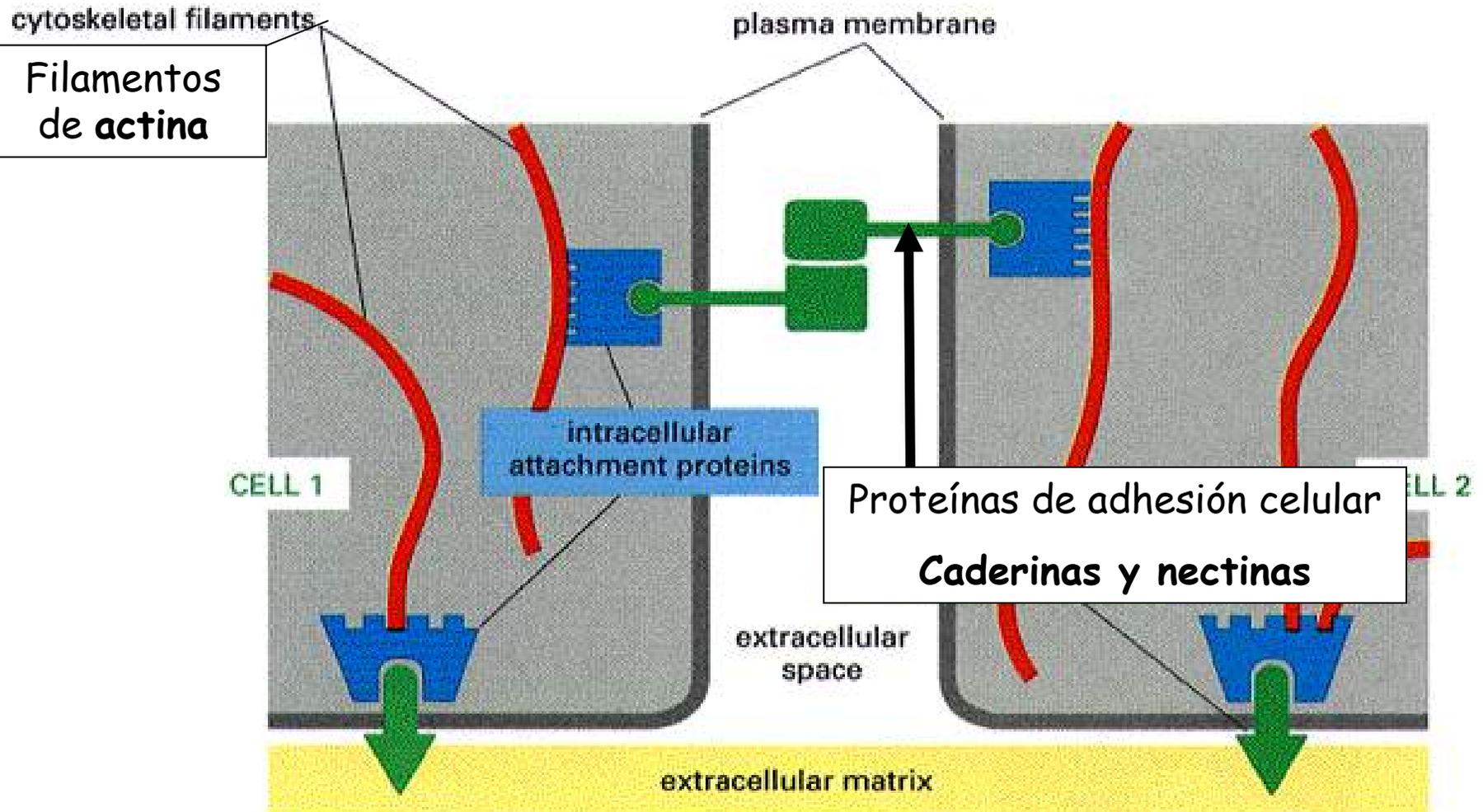


Zona adherente



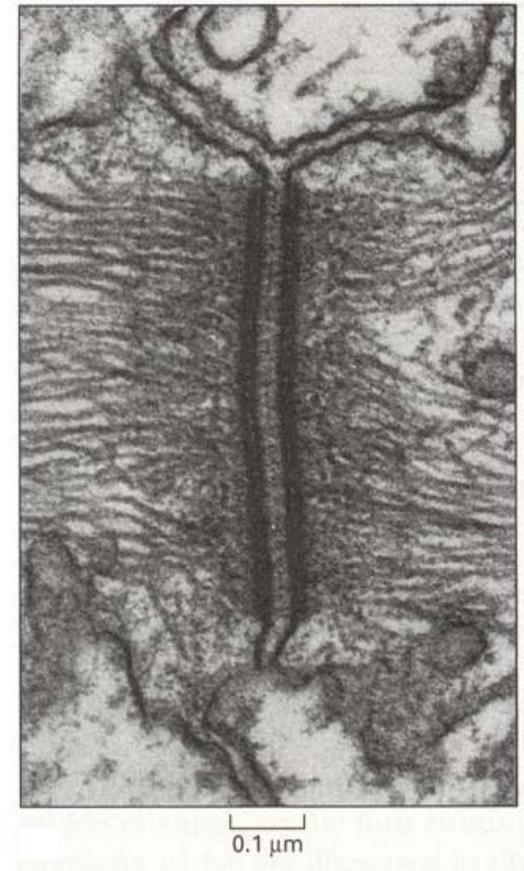
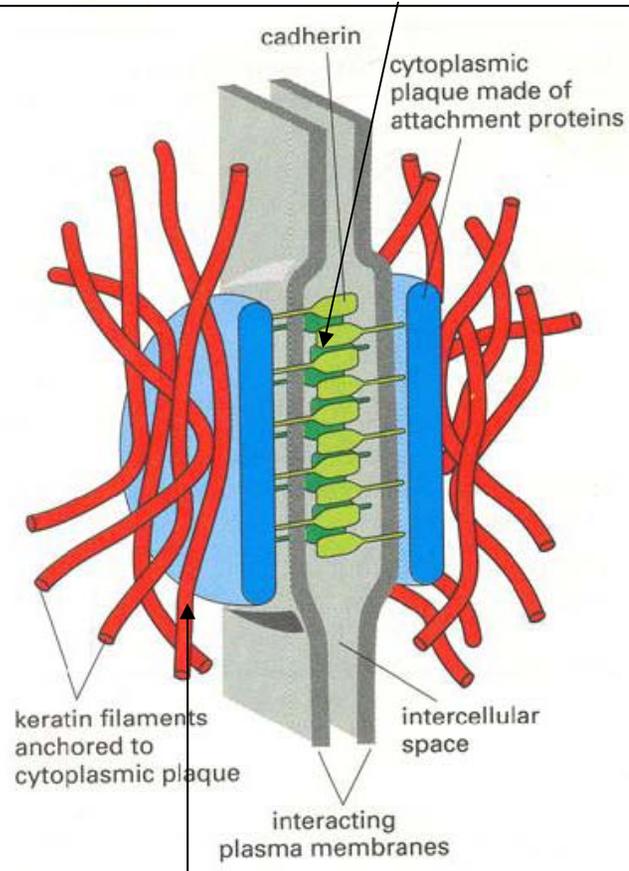
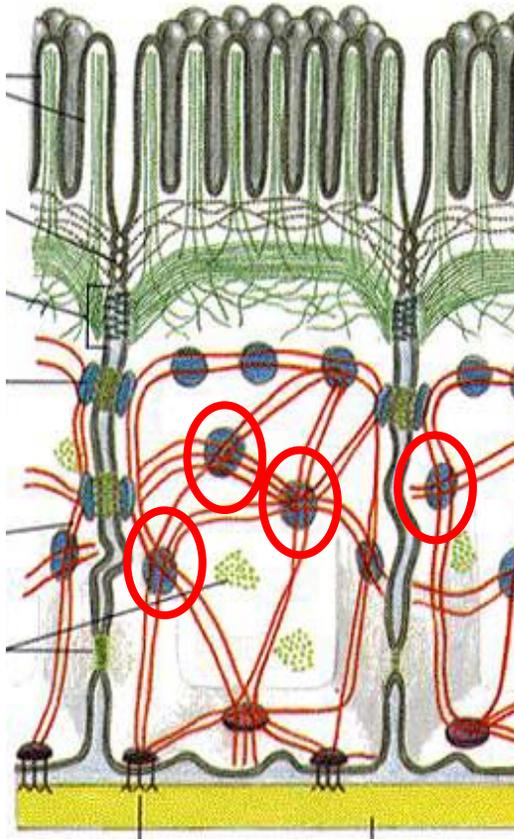
Zona adherente

Zona adherente



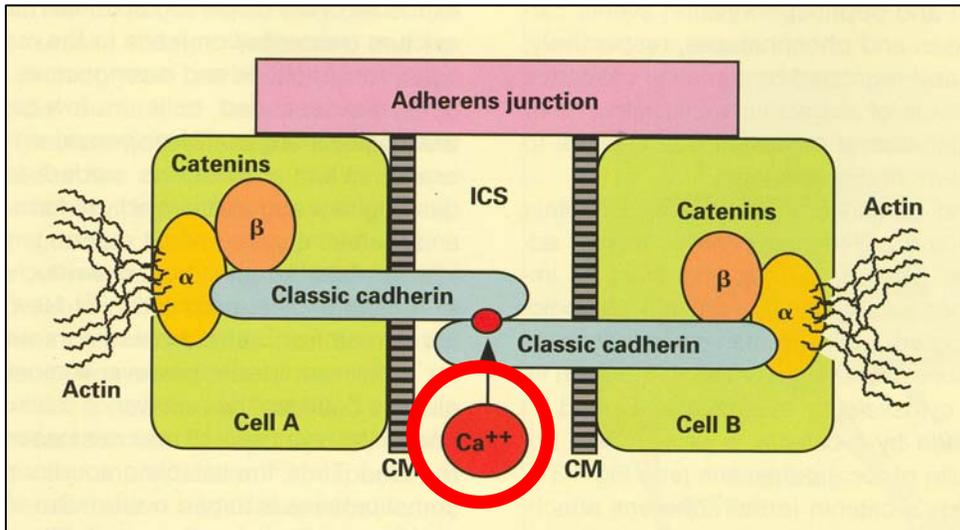
Desmosoma o Mácula adherente

Desmogleína y Desmocolina (Caderinas)



Filamentos intermedios
Citoqueratinas

Zona adherente y desmosoma



Unión intercelular mediante caderinas y nectinas

Proteínas de anclaje intracelular: Cateninas

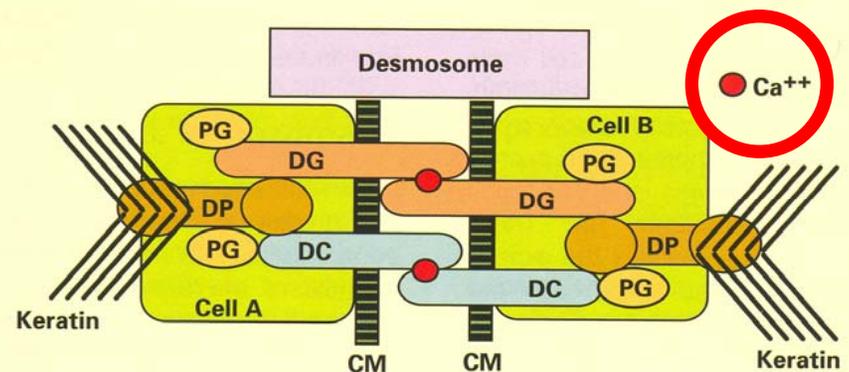
Filamentos de actina

Unión es dependiente de Ca^{2+}

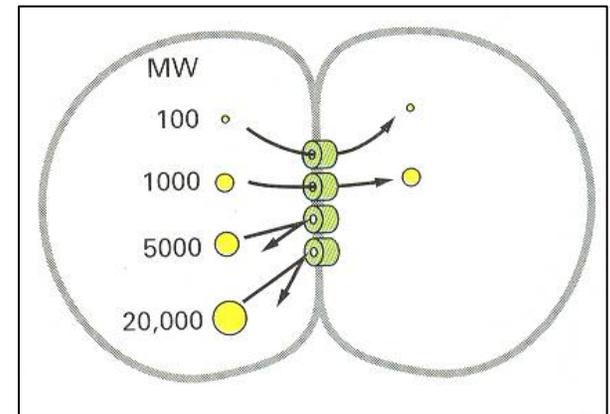
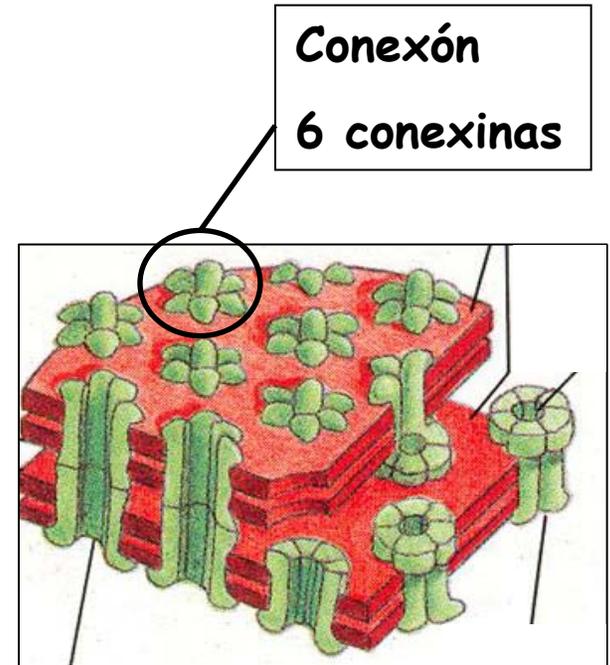
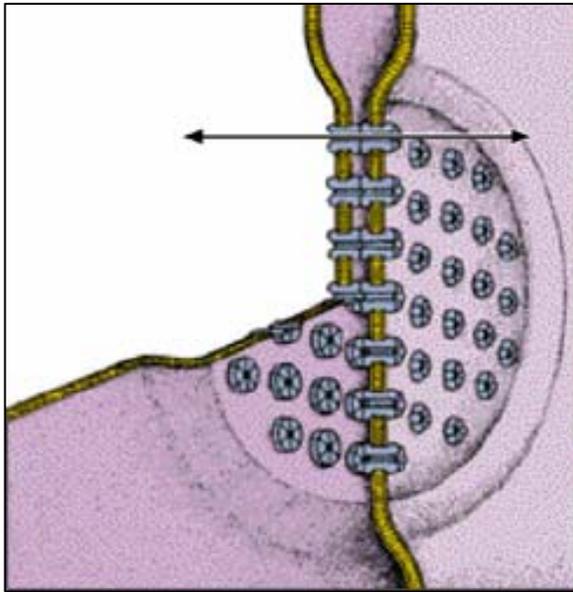
Unión intercelular mediante desmogleína y desmocolina (tb flia de caderinas)

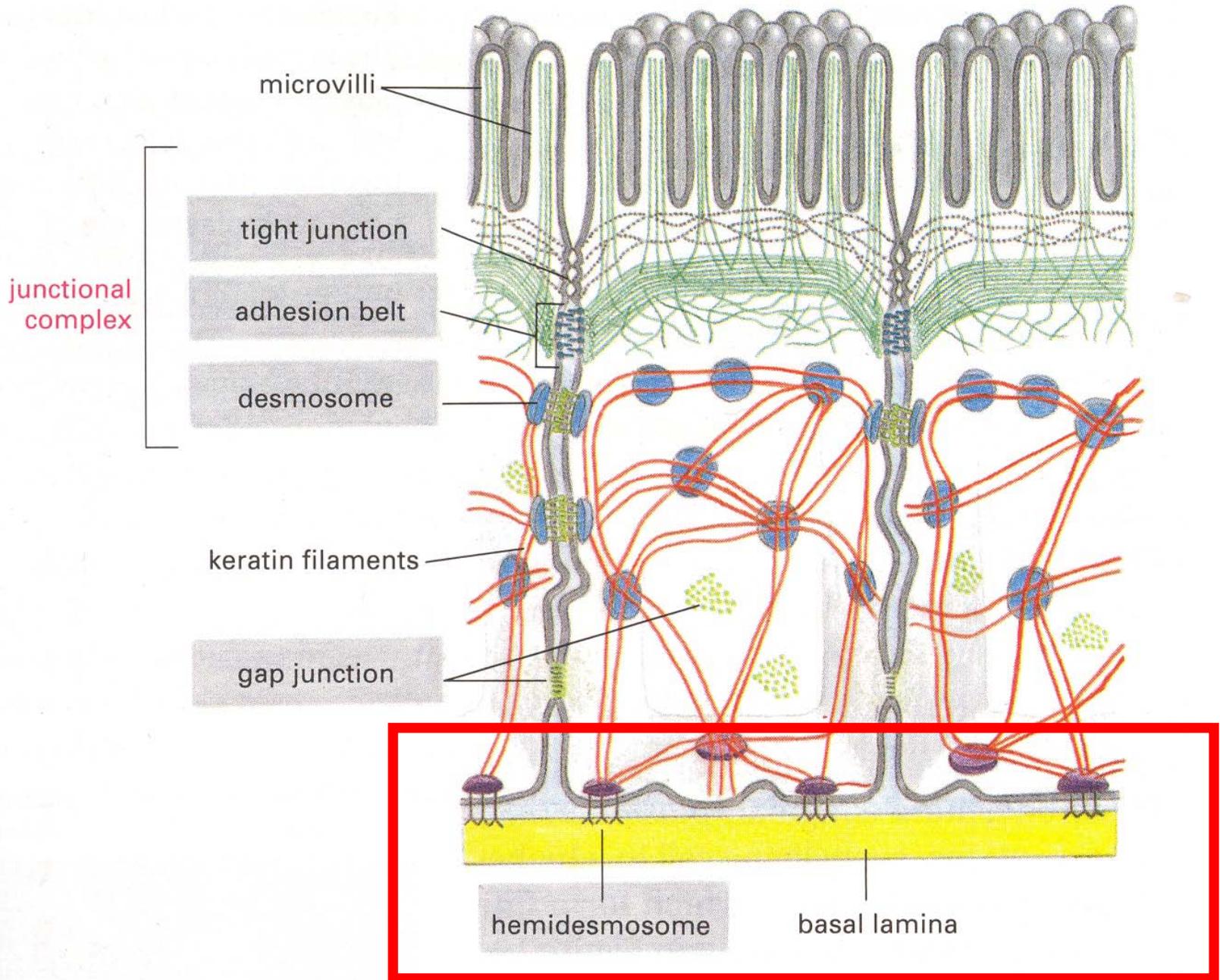
Proteínas de anclaje intracelular: Desmoplaquina y Placoglobina

Filamentos intermedios

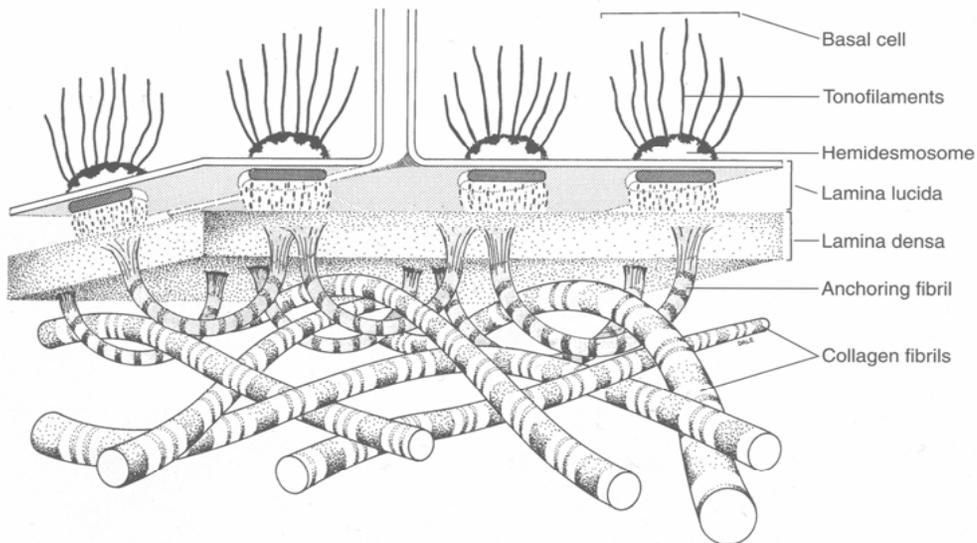
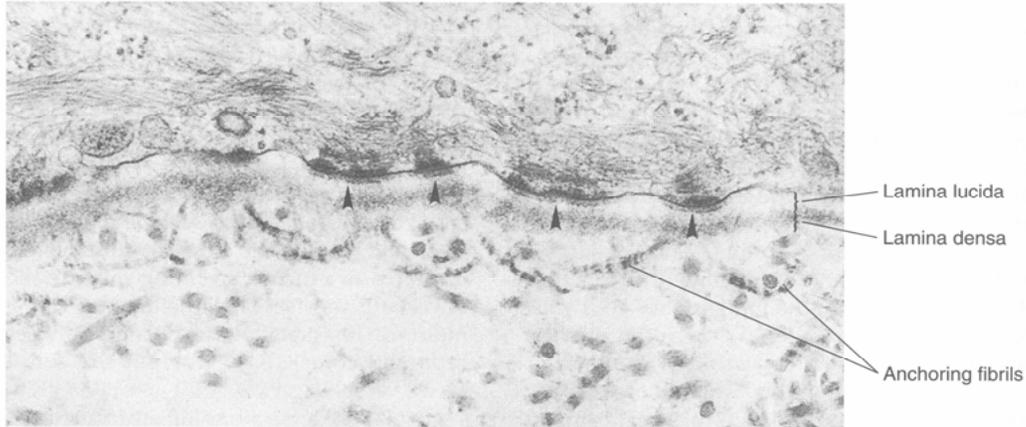


Uniones nexo

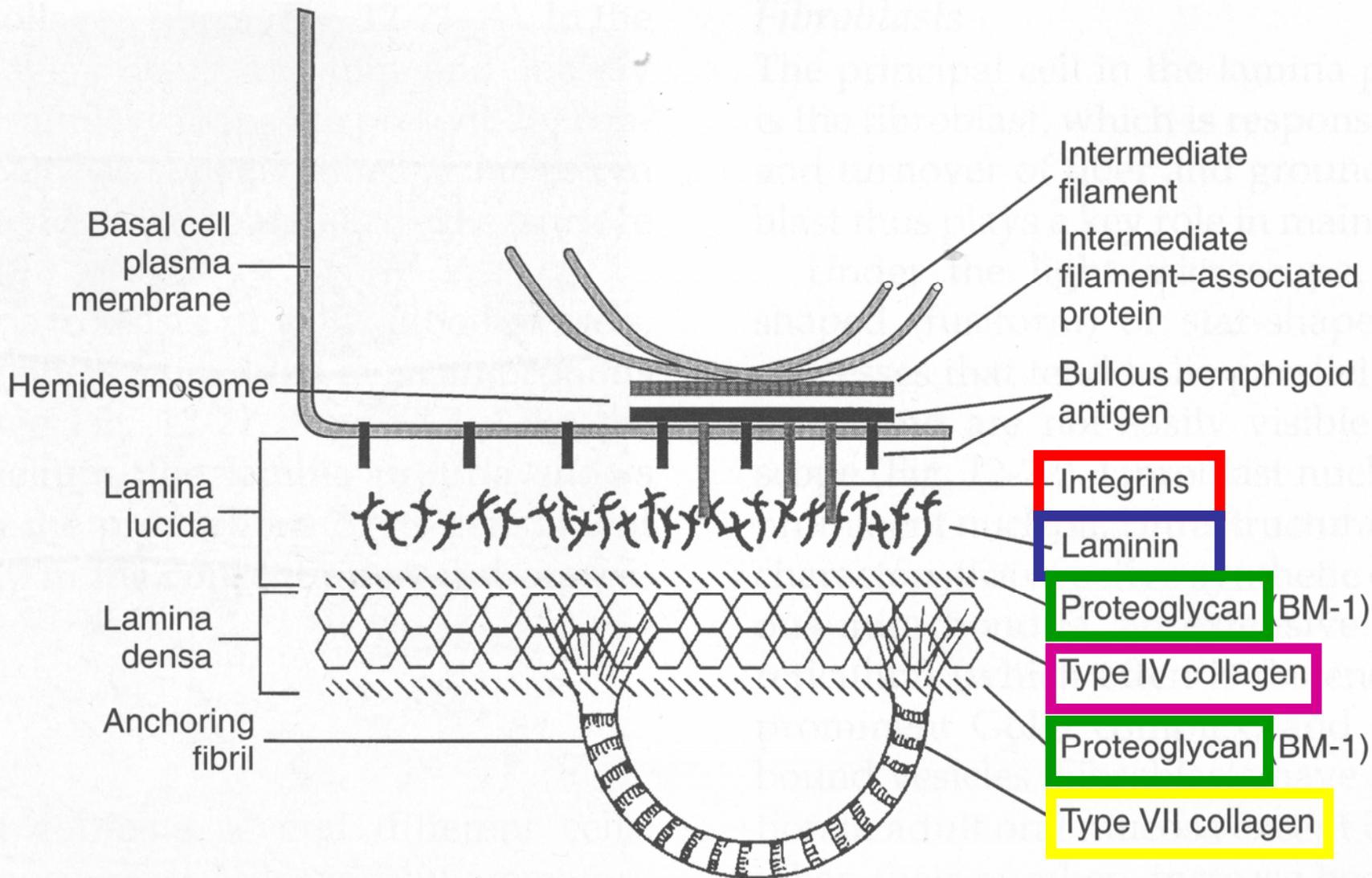


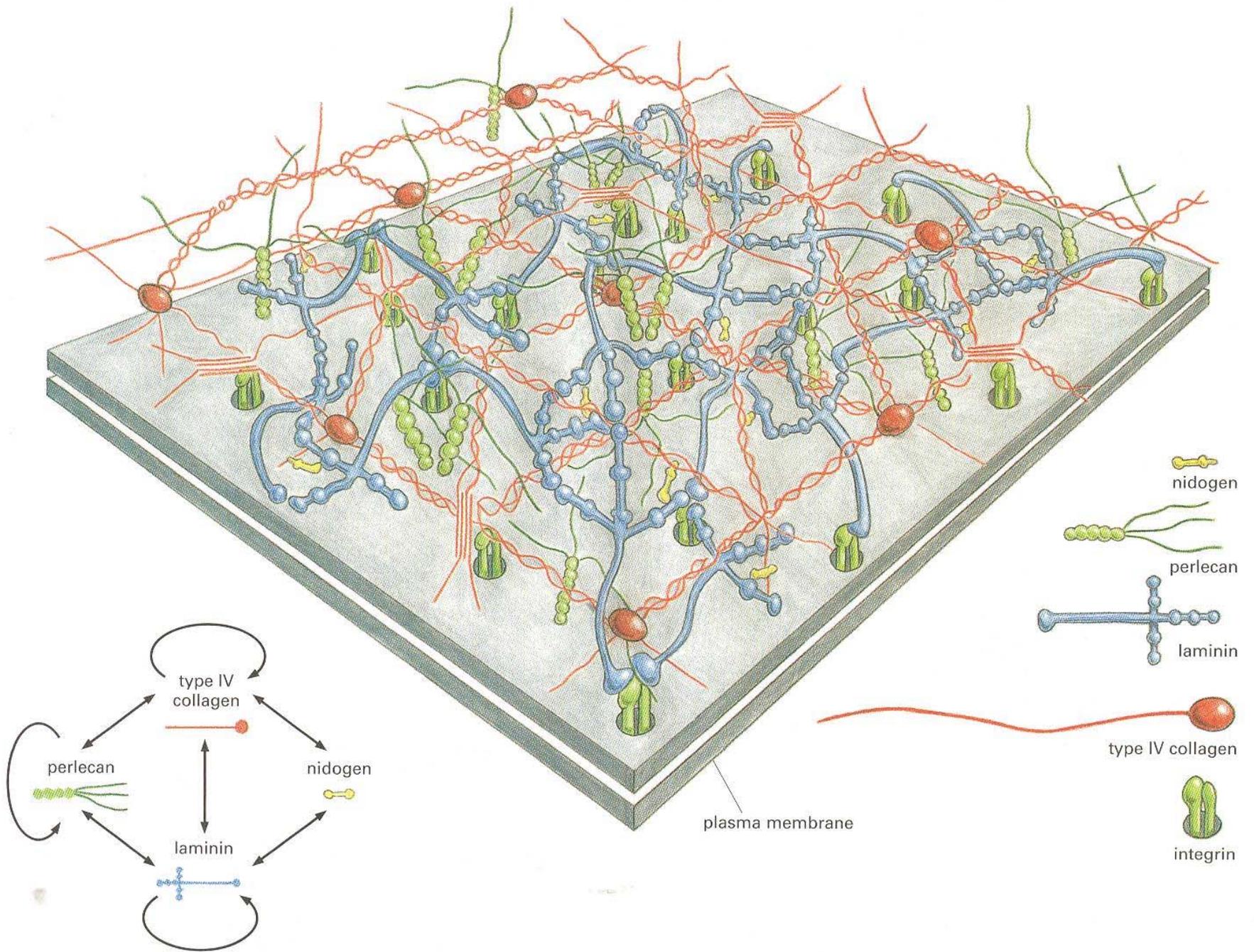


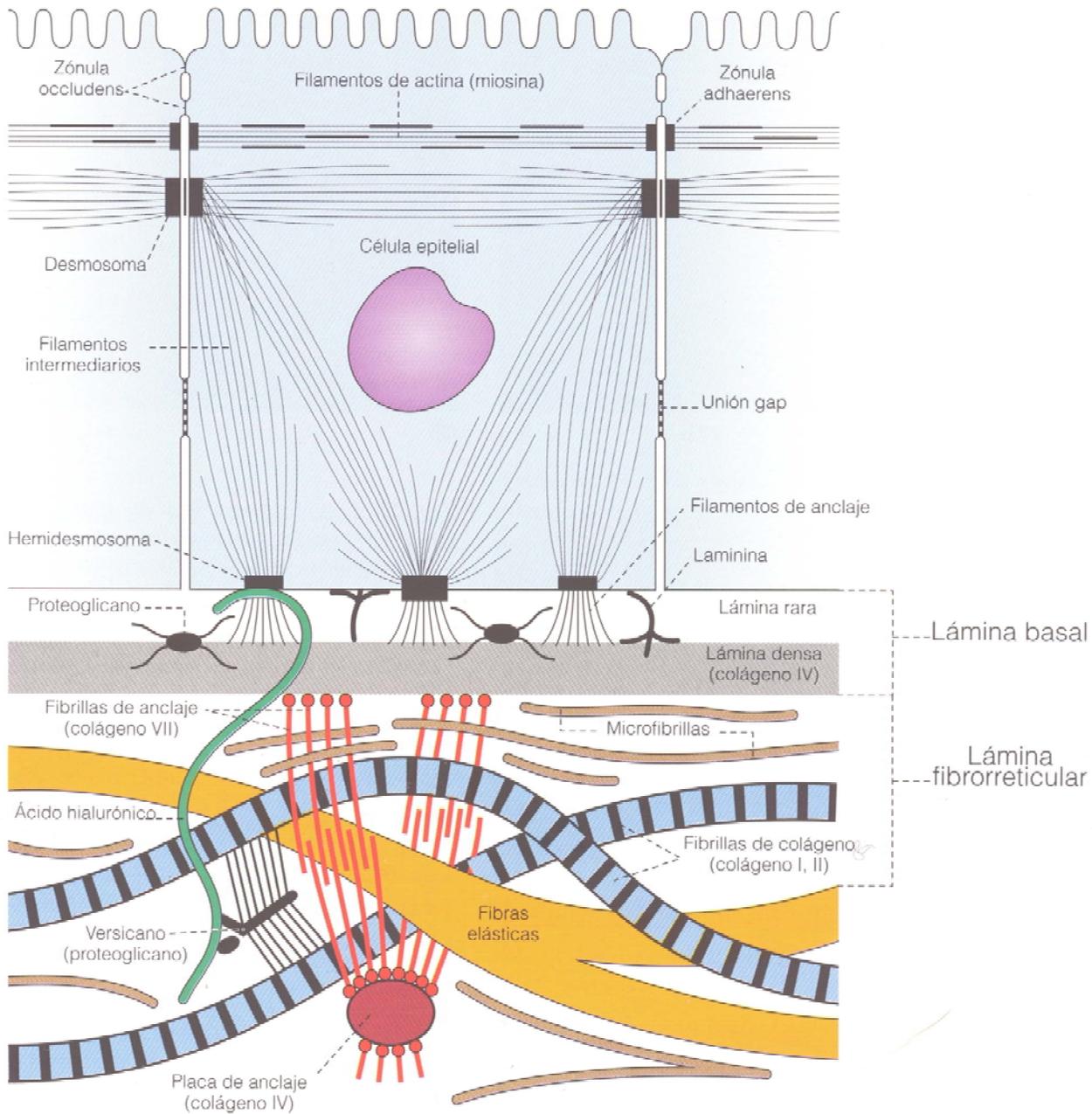
Membrana basal



- ◆ Fijación epitelio-conectivo
- ◆ Compartimentalización de tejidos
- ◆ Filtración de moléculas
- ◆ Inducción de diferenciación celular
- ◆ Guía de crecimiento durante regeneración

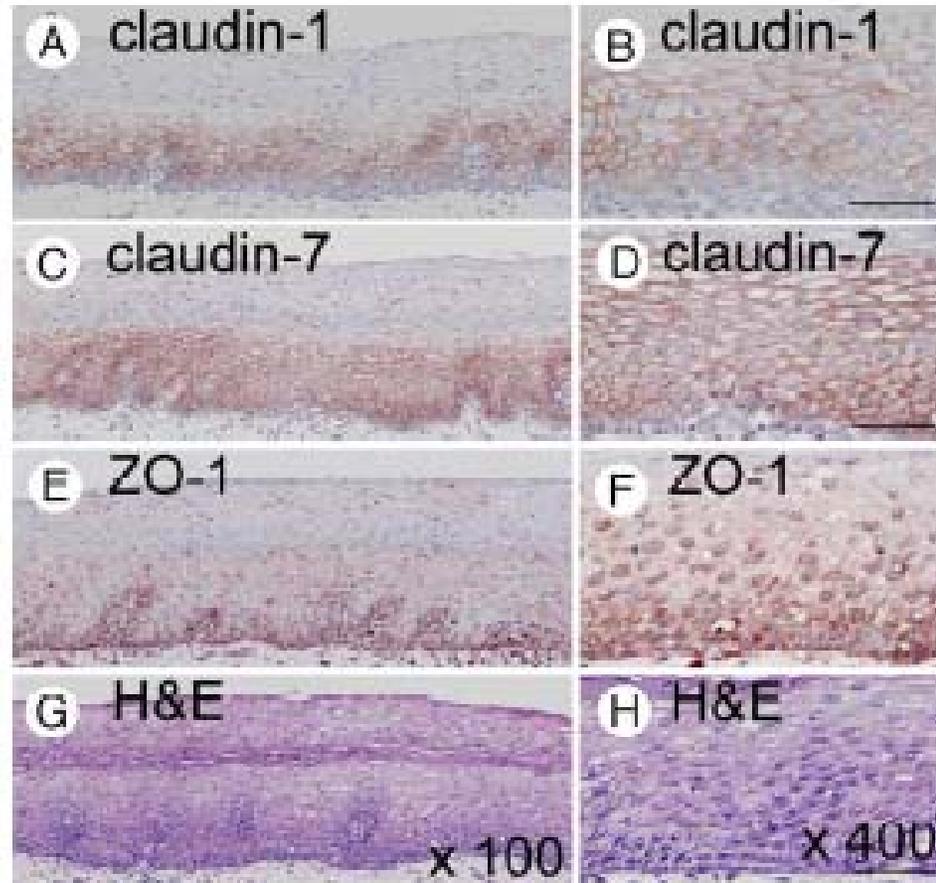
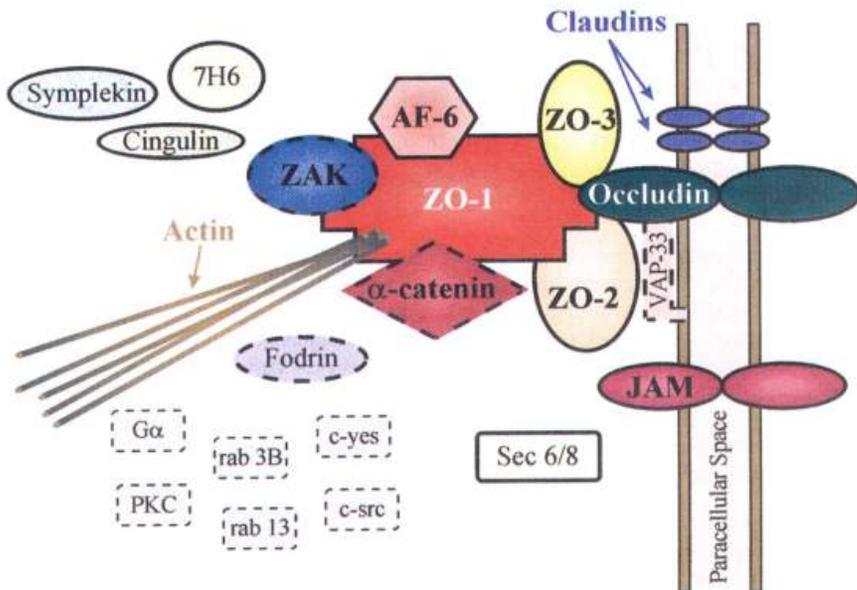




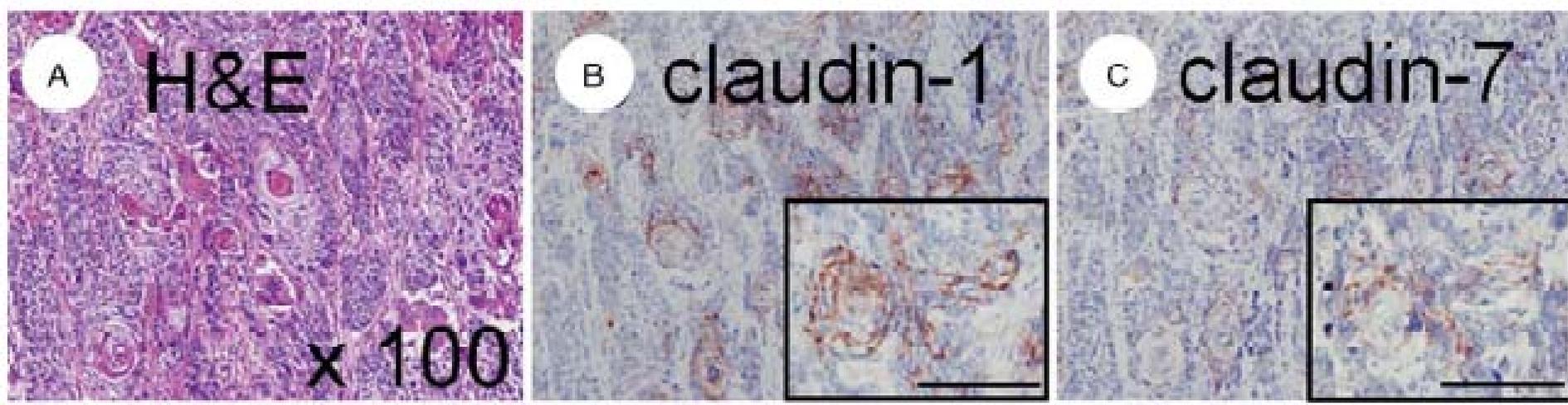


Proteínas del complejo de unión y progresión de cáncer

Epitelio plano estratificado no queratinizado **NORMAL** de esófago



Proteínas del complejo de unión y progresión de cáncer



Menor expresión de claudina-1 y claudina-7 en un tumor poco diferenciado



1. Las células se separan entre sí
2. Más fácil la invasión a tejidos vecino
3. Mayor proliferación de células tumorales
4. Facilita la formación de metástasis

¿ PREGUNTAS ?

