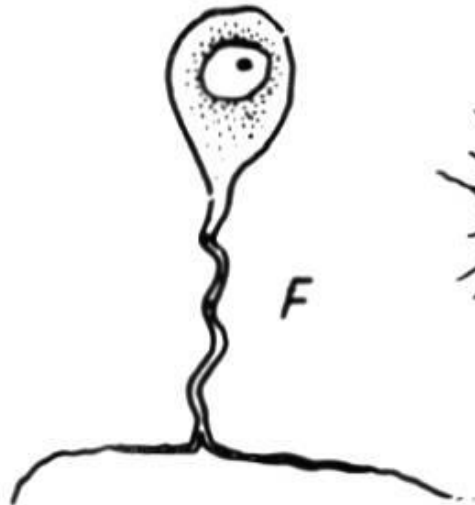
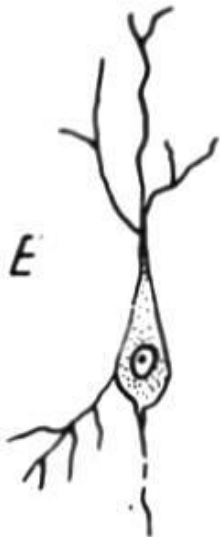
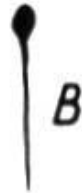
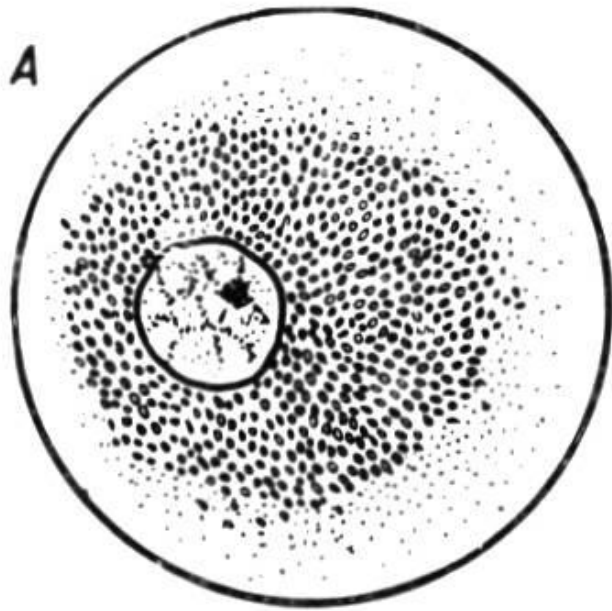


Az állatok és az ember szövetei

(Az összeállításban látható mikroszkópi
fényképek festett metszetekről készültek.)

Sejtek mérete azonos nagyításnál



A petesejt

B spermium

C fehérvérsejt

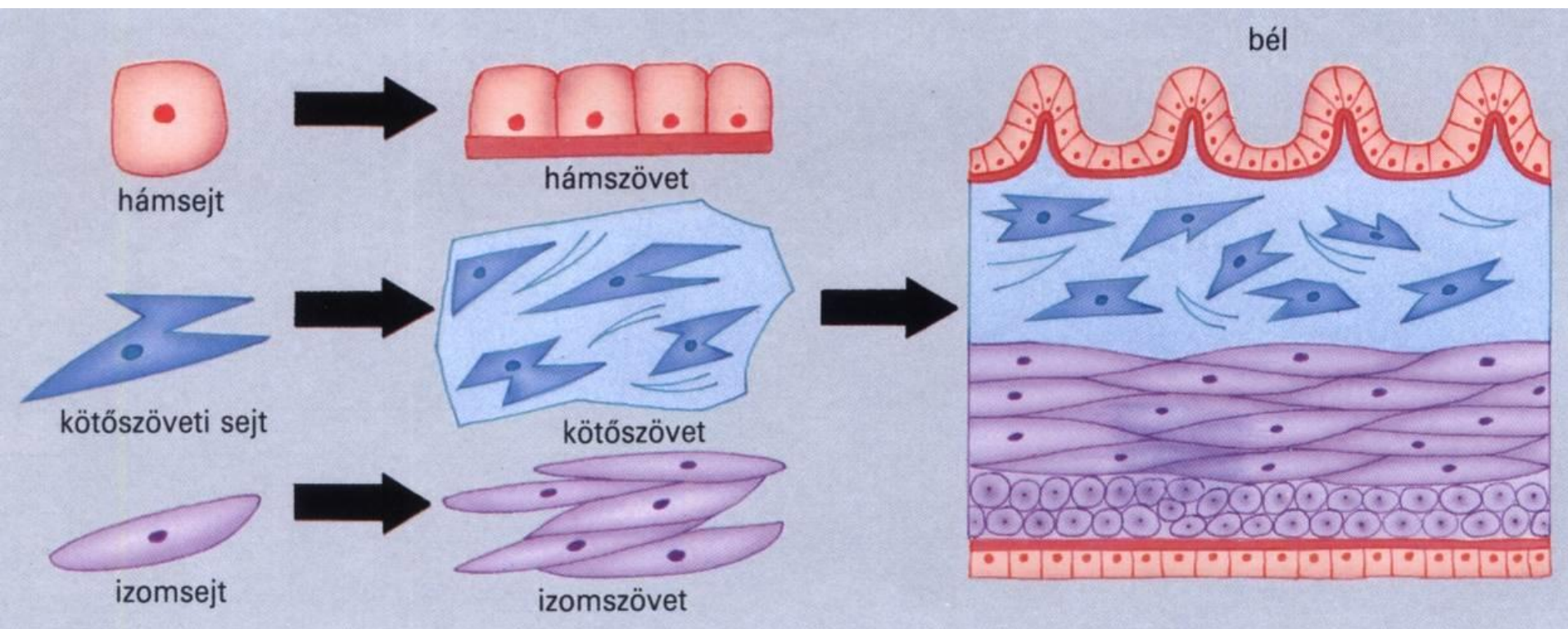
D simaizomsejt

E idegsejt agykéregből

F érzőidegsejt

G csontsejt

Többféle szövet épít fel egy szervet



A hámszövetek csoportosítása

Funkció szerint:

- Fedőhám
- Mirigyhám
- Felszívóhám
- Érzékhám
- Pigmenthám

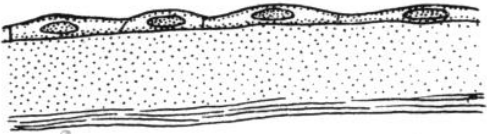
Sejtek alakja szerint:

- Laphám
- Köbhám
- Hengerhám

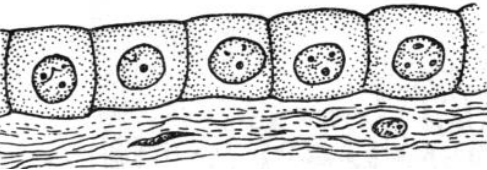
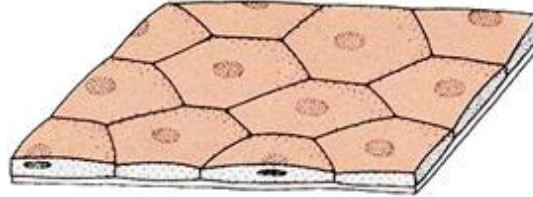
Sejtrétegek száma szerint:

- Egyrétegű hám
- Többrétegű hám

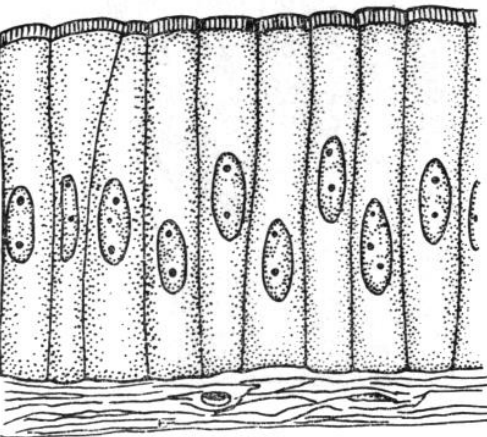
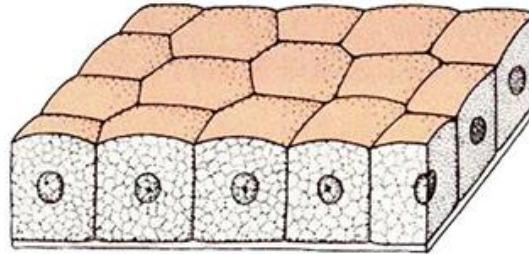
EGYRÉTEGŰ FEDŐHÁMOK



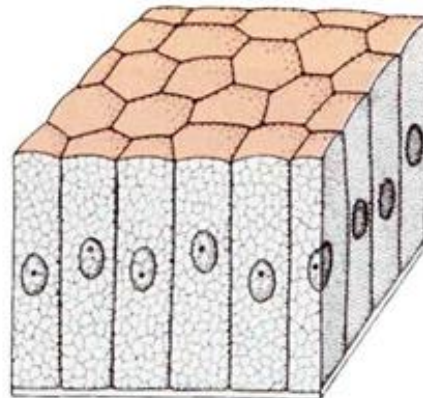
laphám



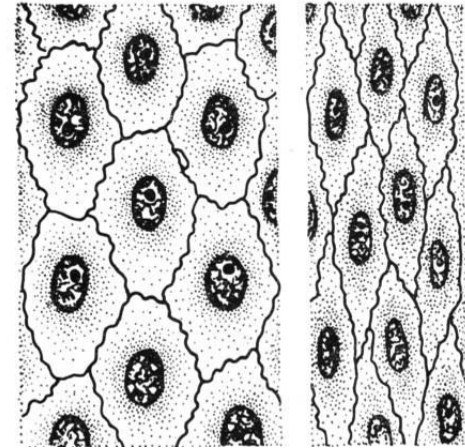
köbhám



hengerhám



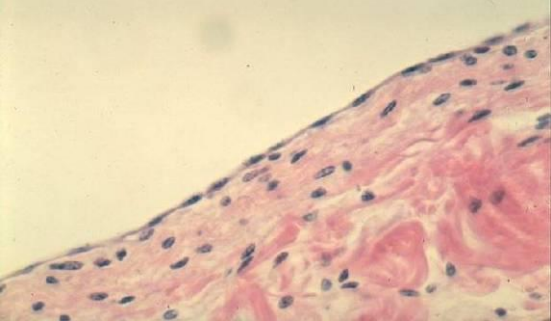
Egyrétegű laphám



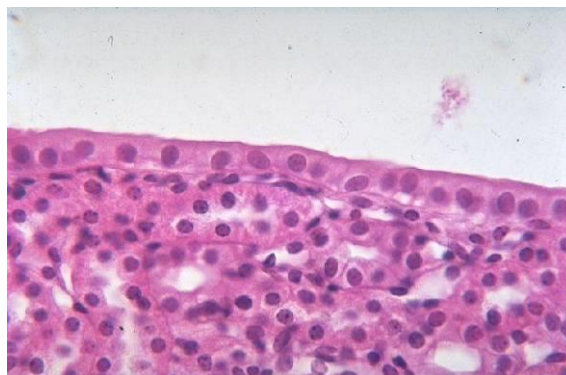
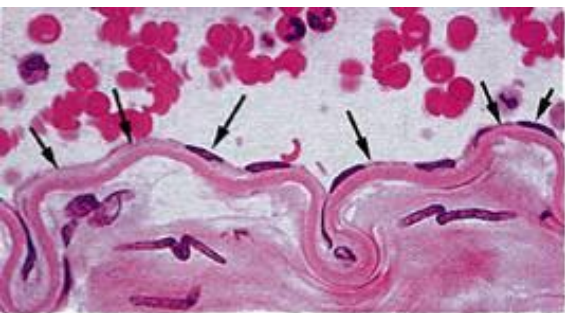
véna

artéria

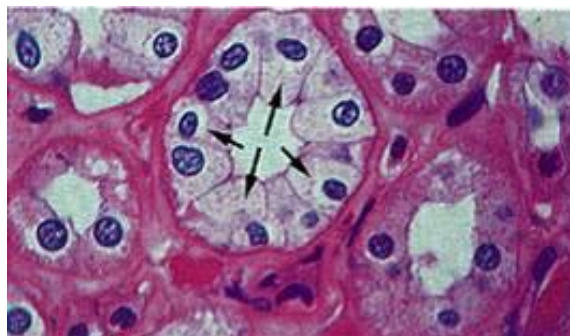
felülnézetben



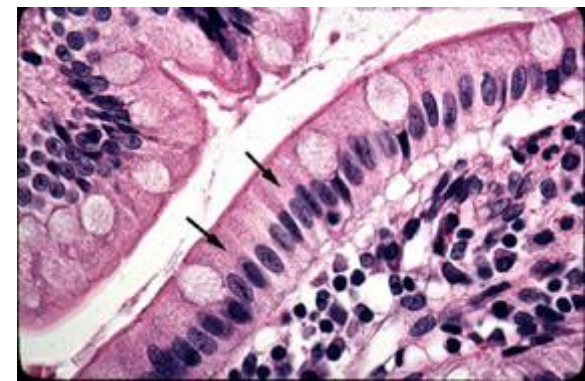
egyrétegű laphám



egyrétegű köbhám



egyrétegű hengerhám

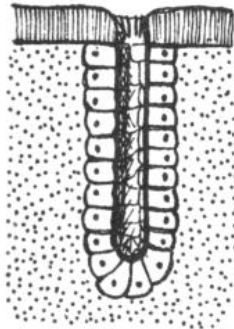


Bélboholy

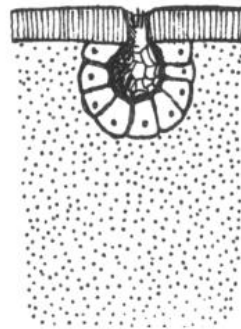


Külső elválasztású mirigyek

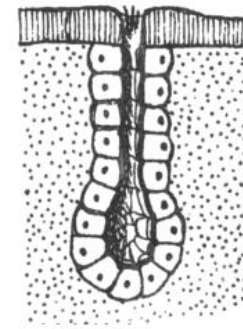
egyszerű
mirigyek



csöves



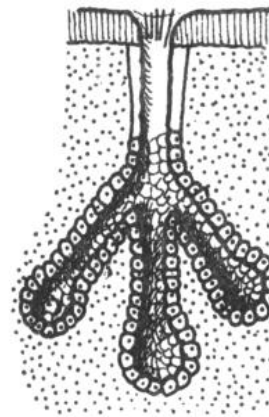
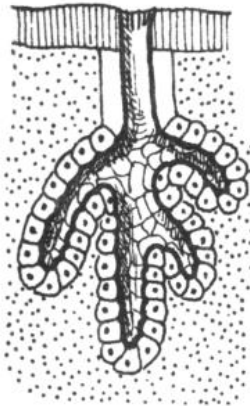
bogyós



csöves-bogyós

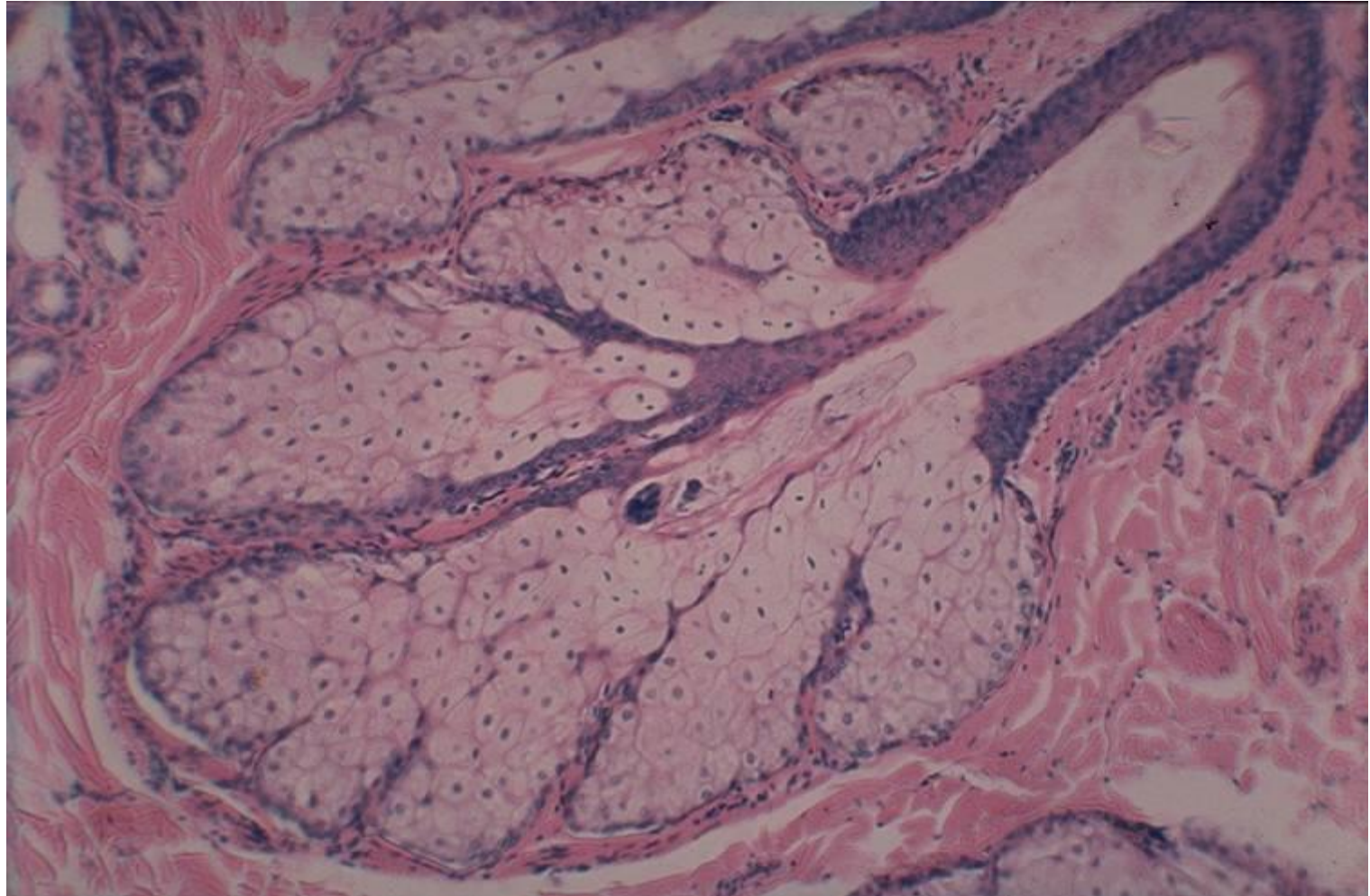
kivezetőcső
végkamra

összetett
mirigyek

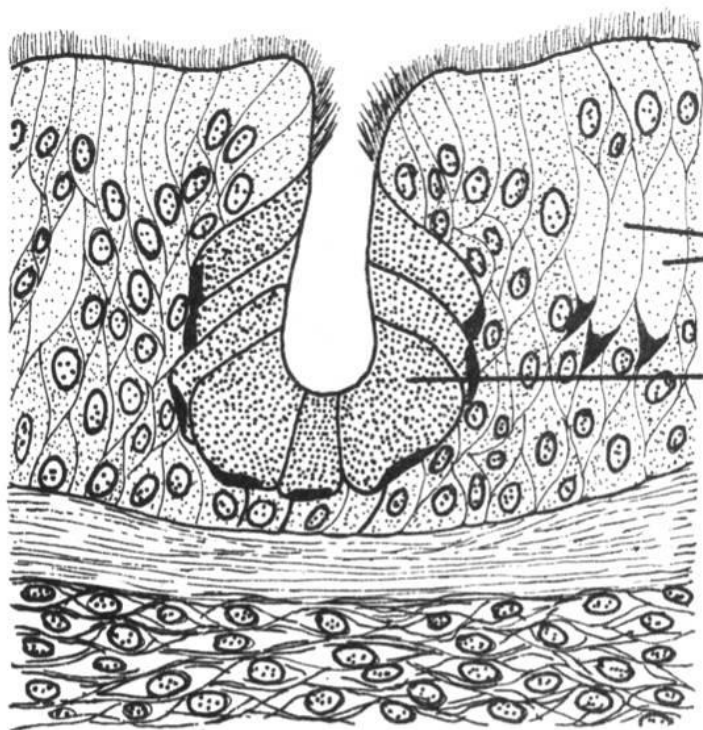


kivezetőcső
végkamra

Faggyúmirigy



Mirigyek az orrnyálkahártyában



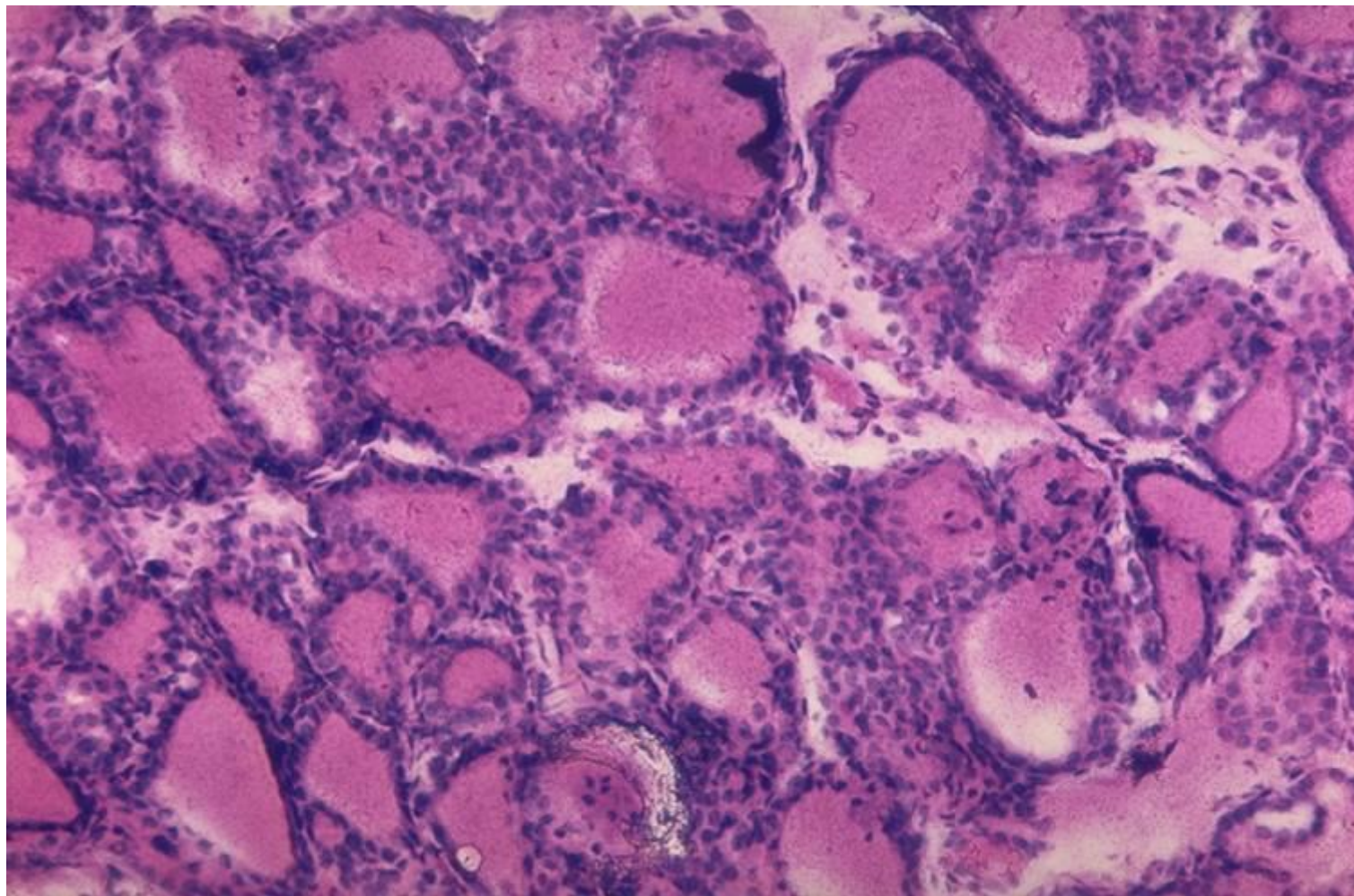
Többrétegű csillós hám

egysejtű mirigyek

többsejtű mirigy

hám alaphártyája

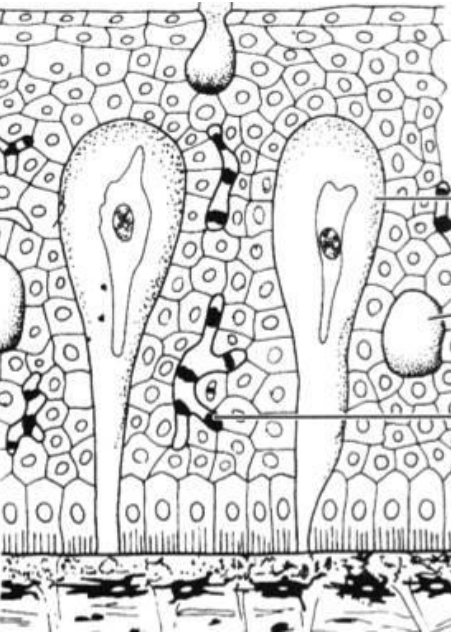
Belső elválasztású mirigy (pajzsmirigy)



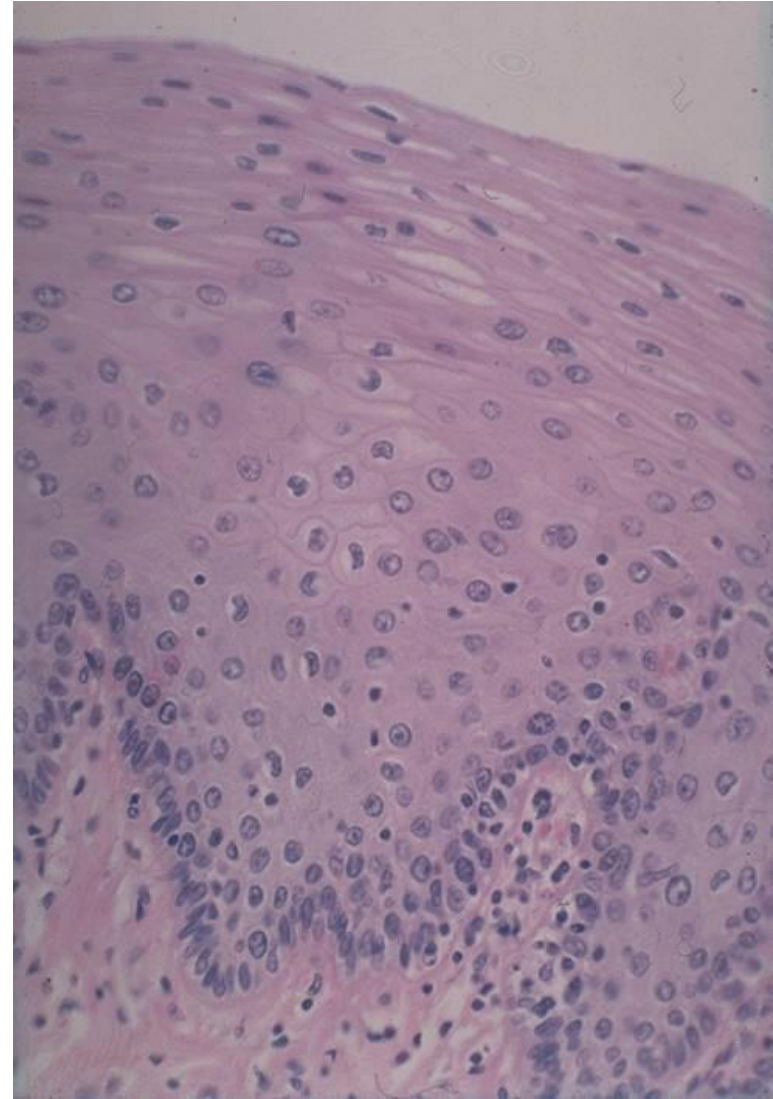
Többrétegű el nem szarusodó laphám



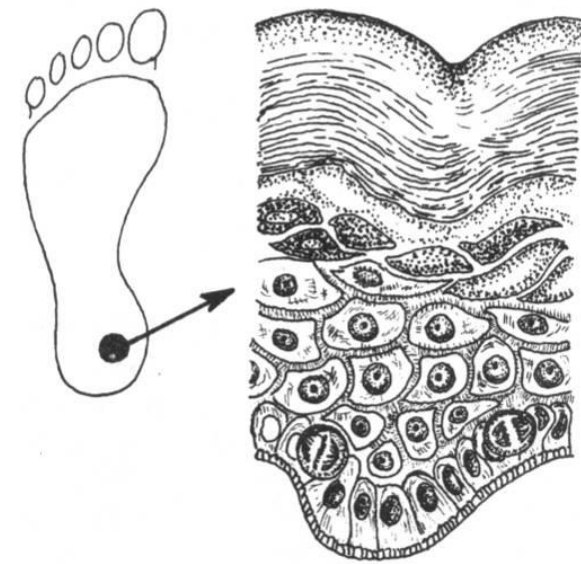
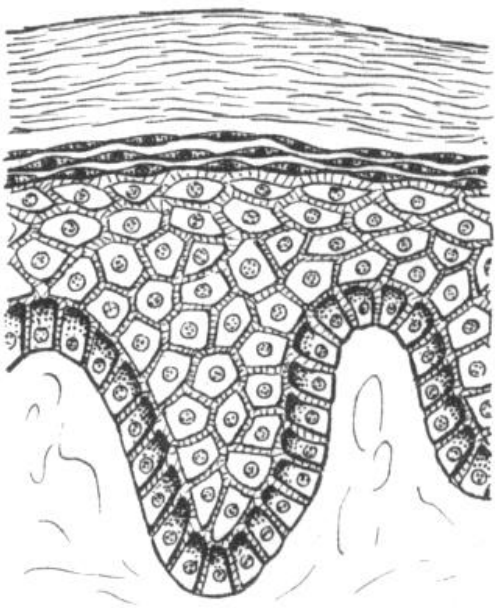
Hal bőre



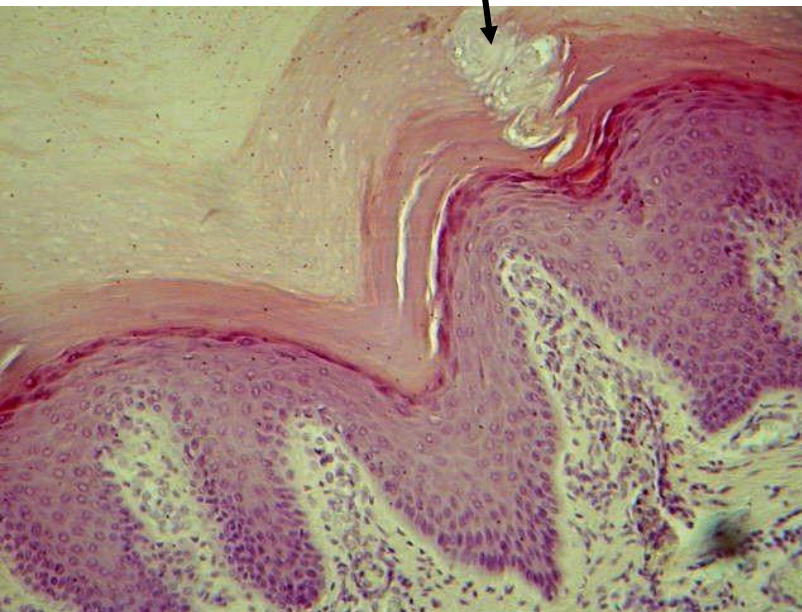
Emberi
nyelőcső



Többrétegű elszarusodó laphám



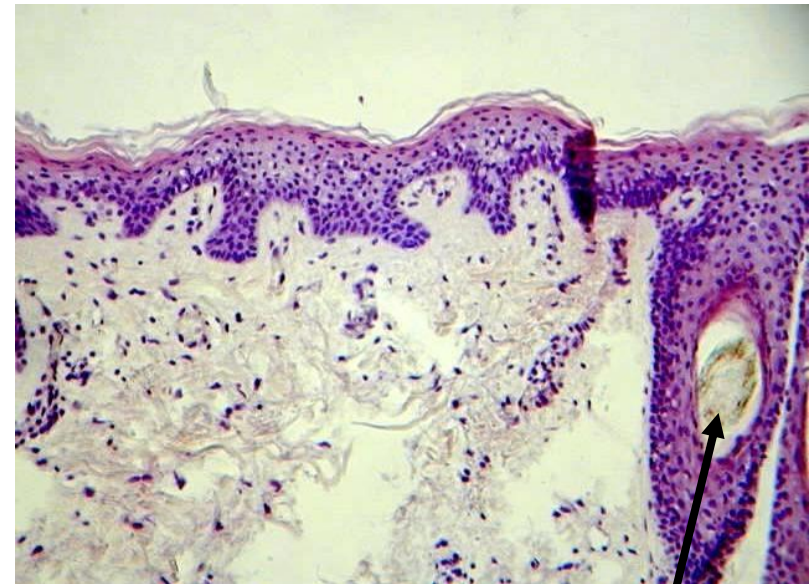
Verejtékm. csöve



Emberi ujjbőr

szaruréteg
élő hámsejtek

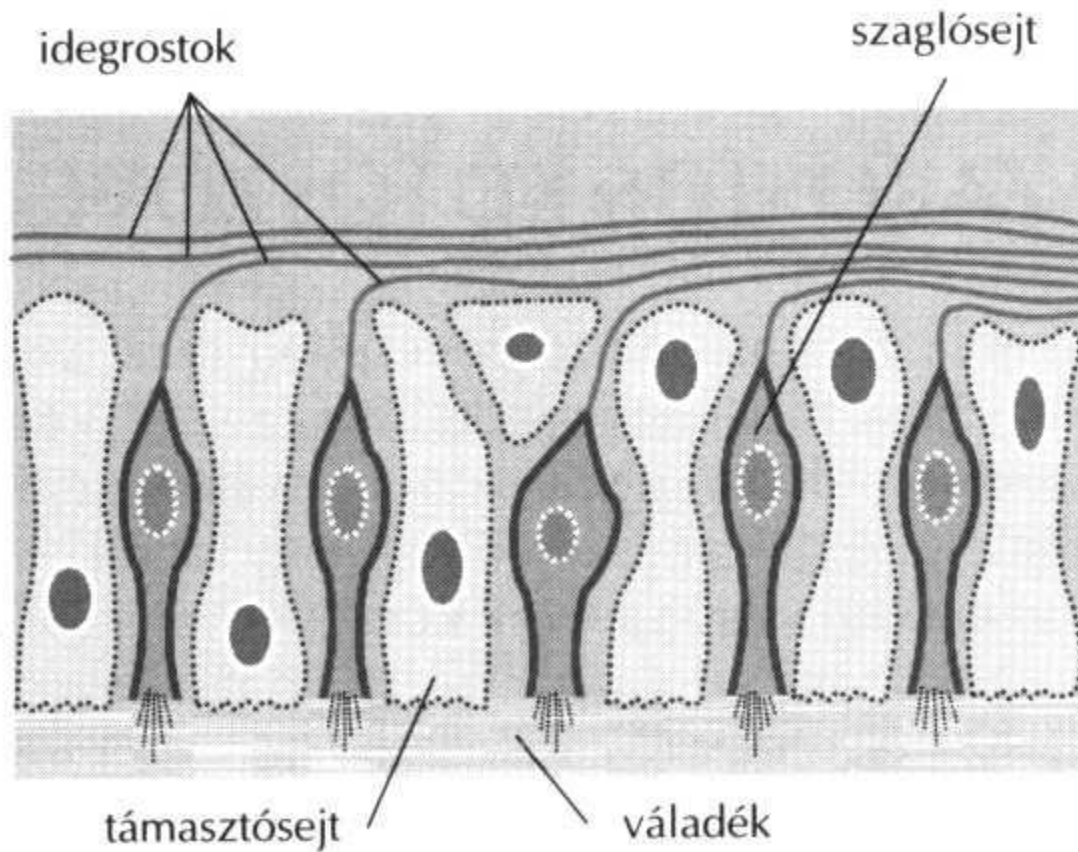
Irha



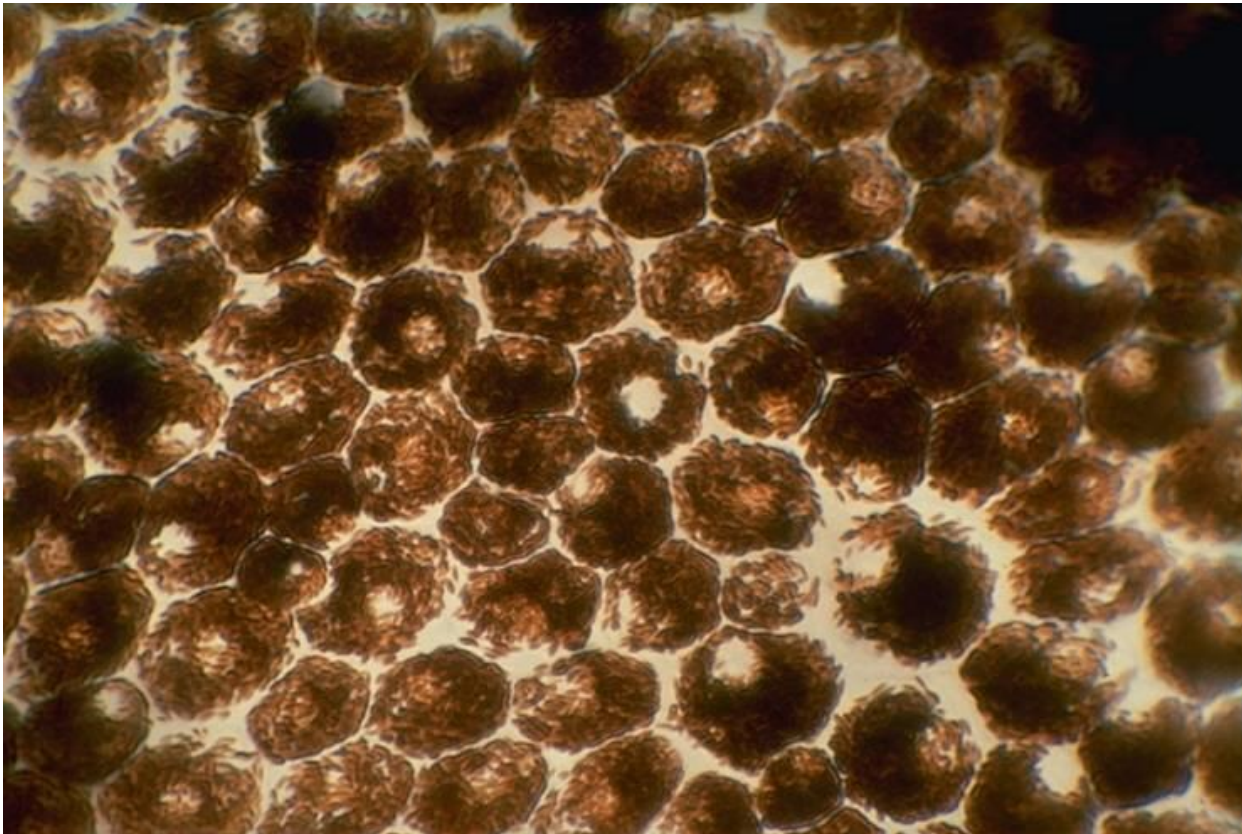
Emberi fejbőr

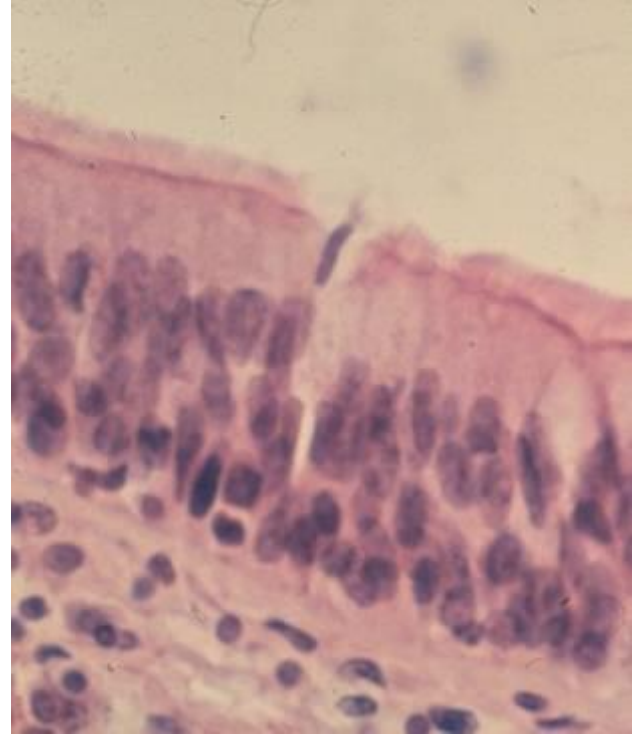
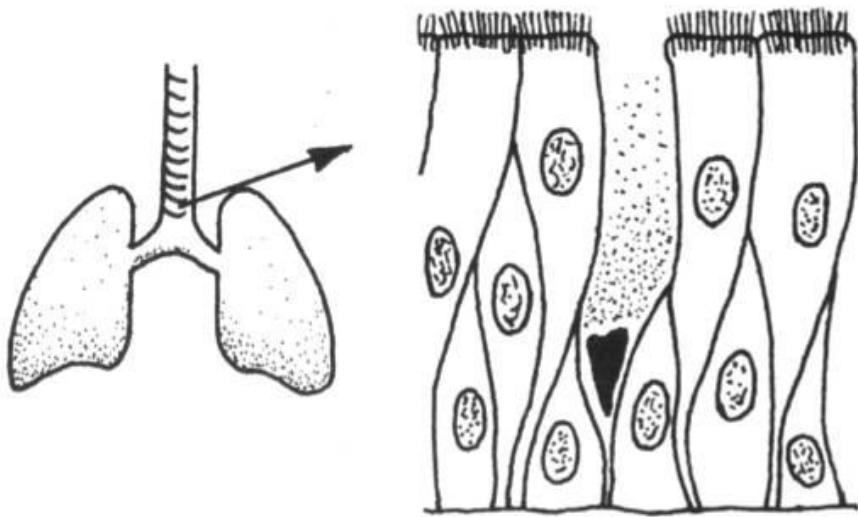
átmetszett hajszál
hajtüszőben

Érzékhám (szaglóhám)

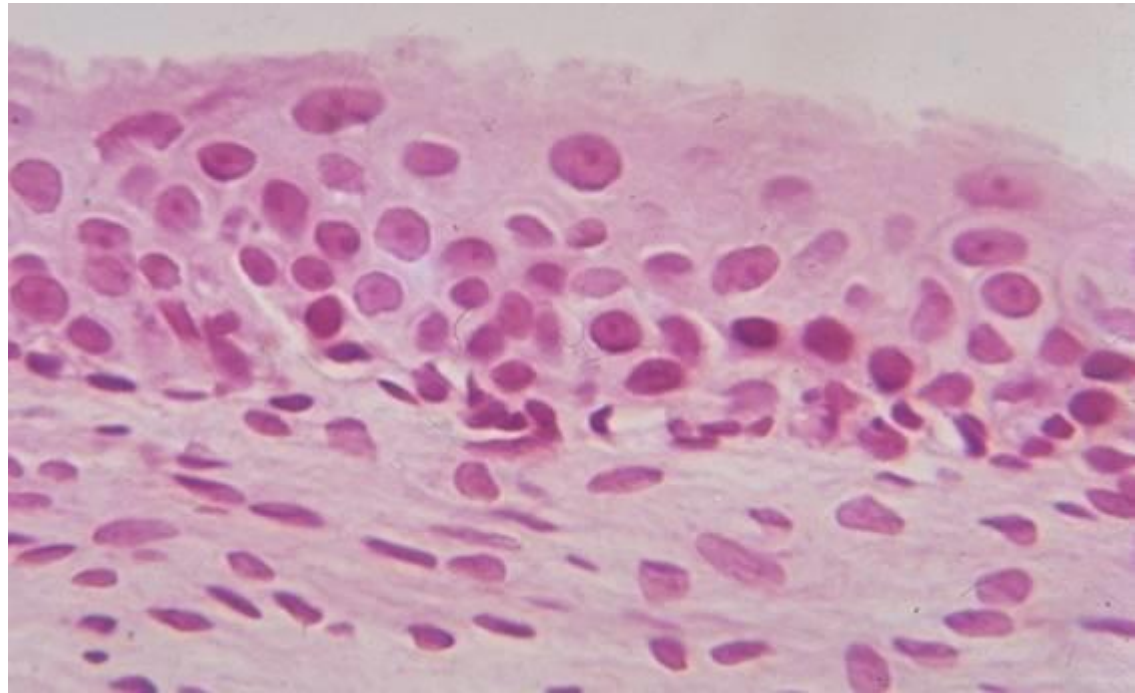
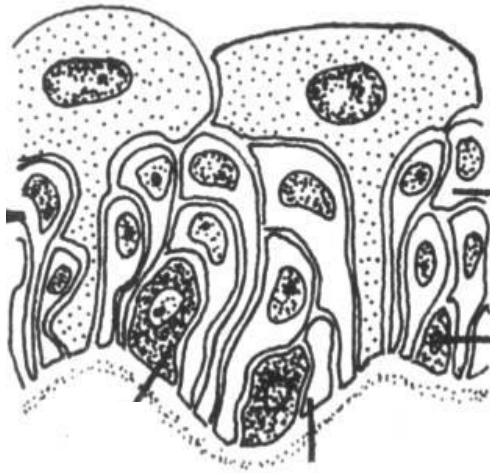


Pigmenthám (szem)



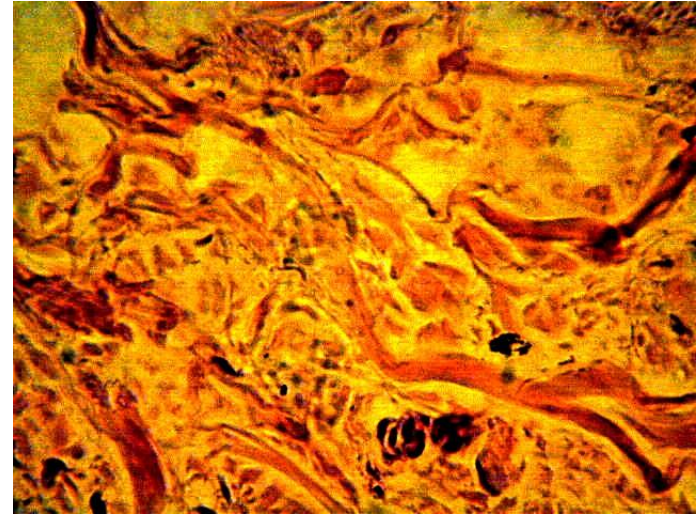
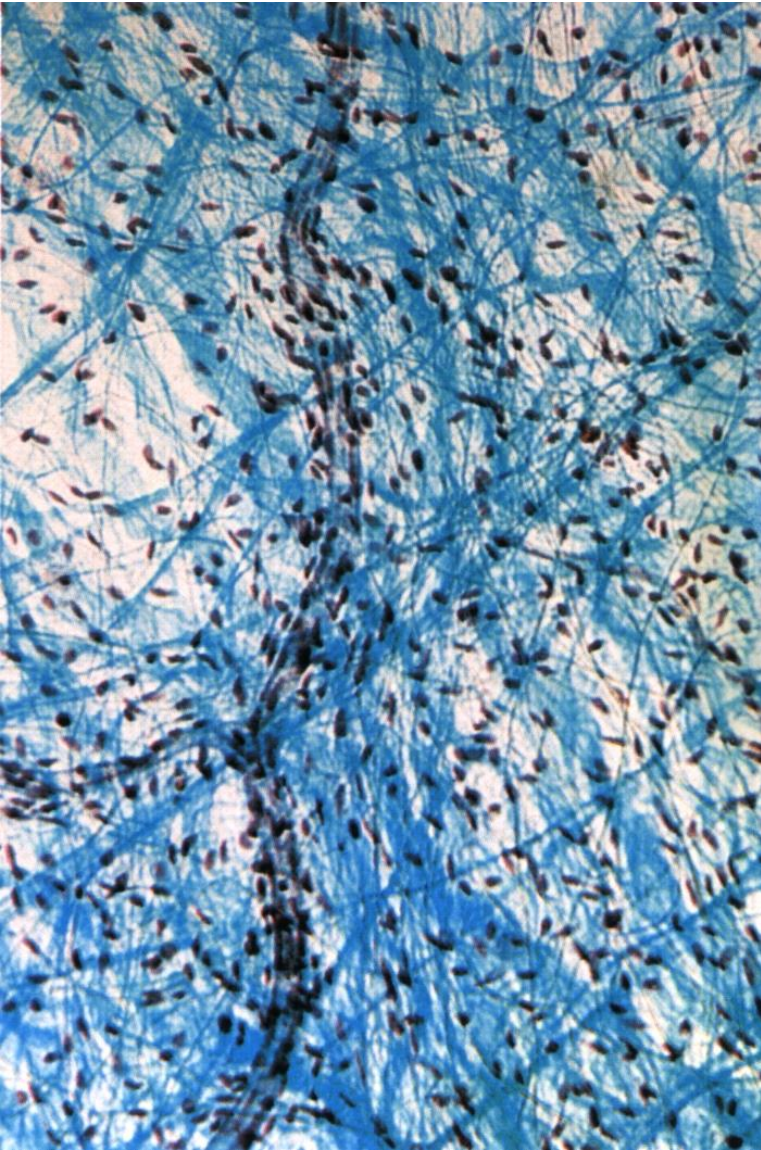


Többsoros csillós hengerhám

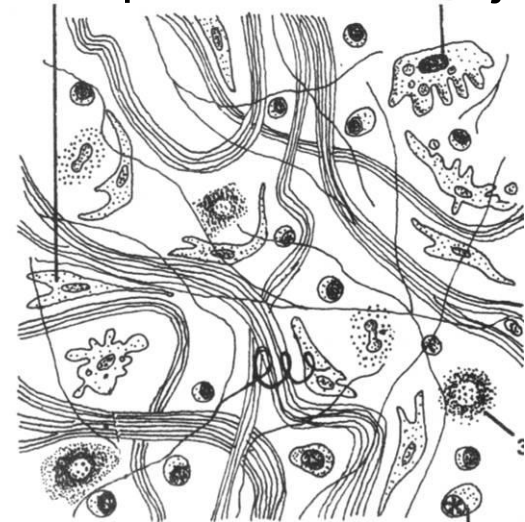


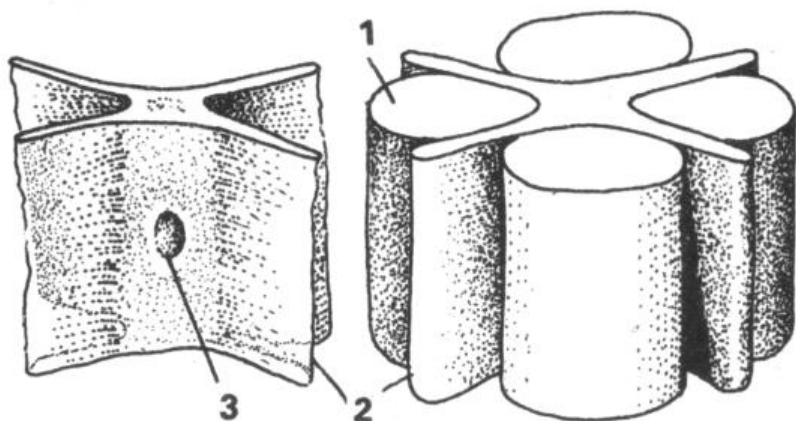
Urothelium (átmeneti hám)
húgyhólyagban

Lazarostos kötőszövet



rostképző s. falósejt

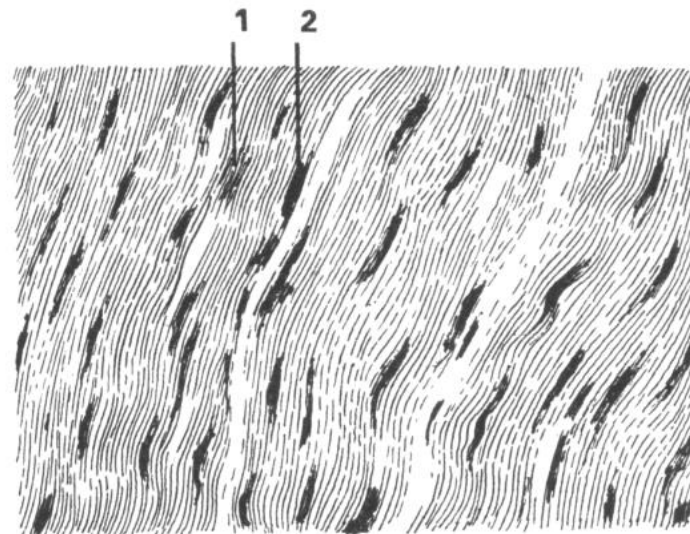




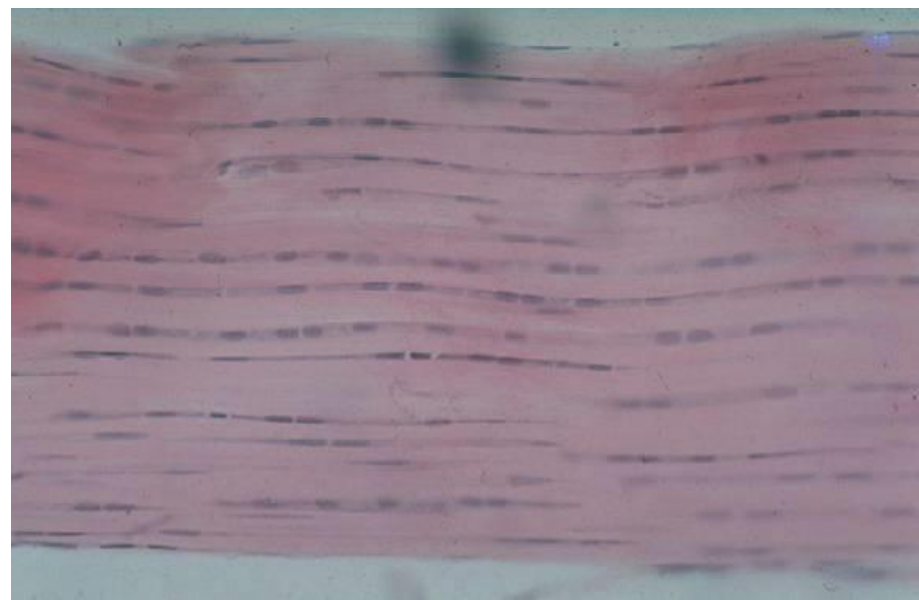
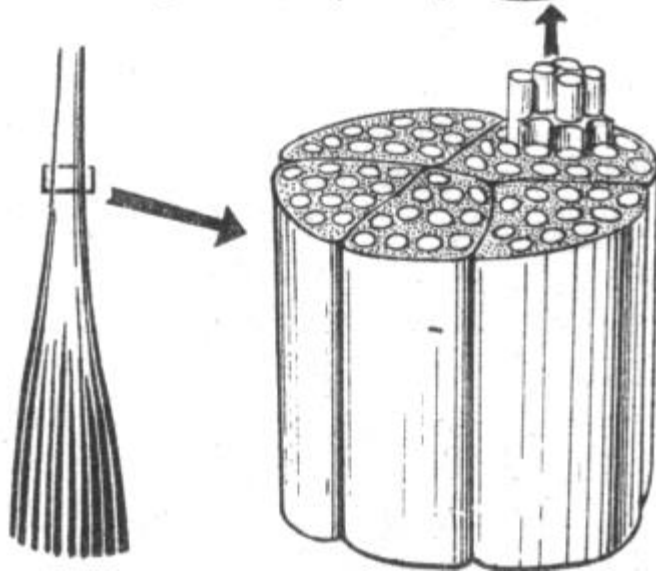
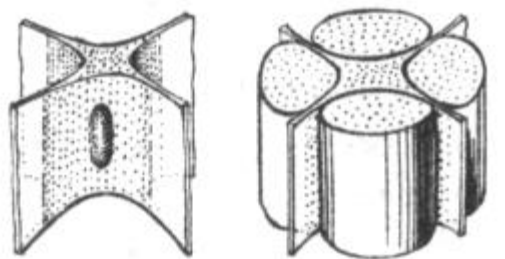
1 rost

2 sejt

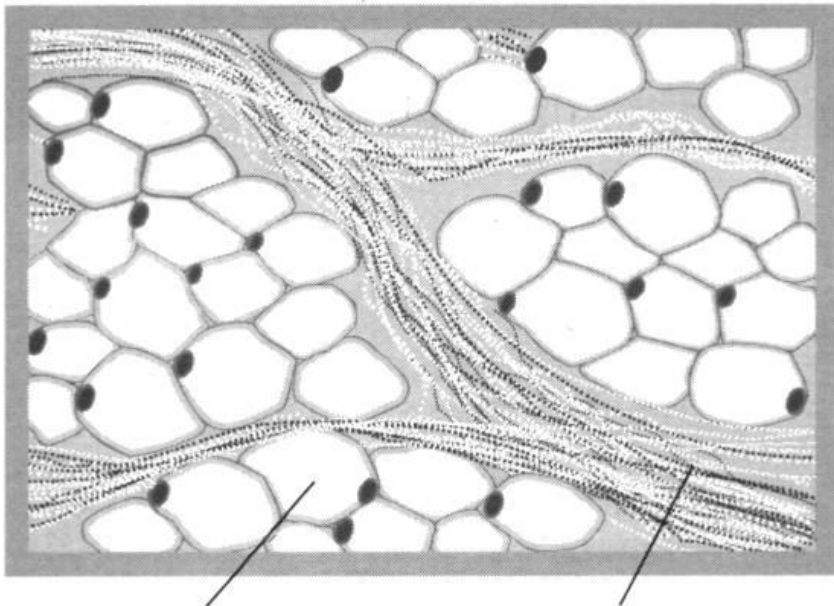
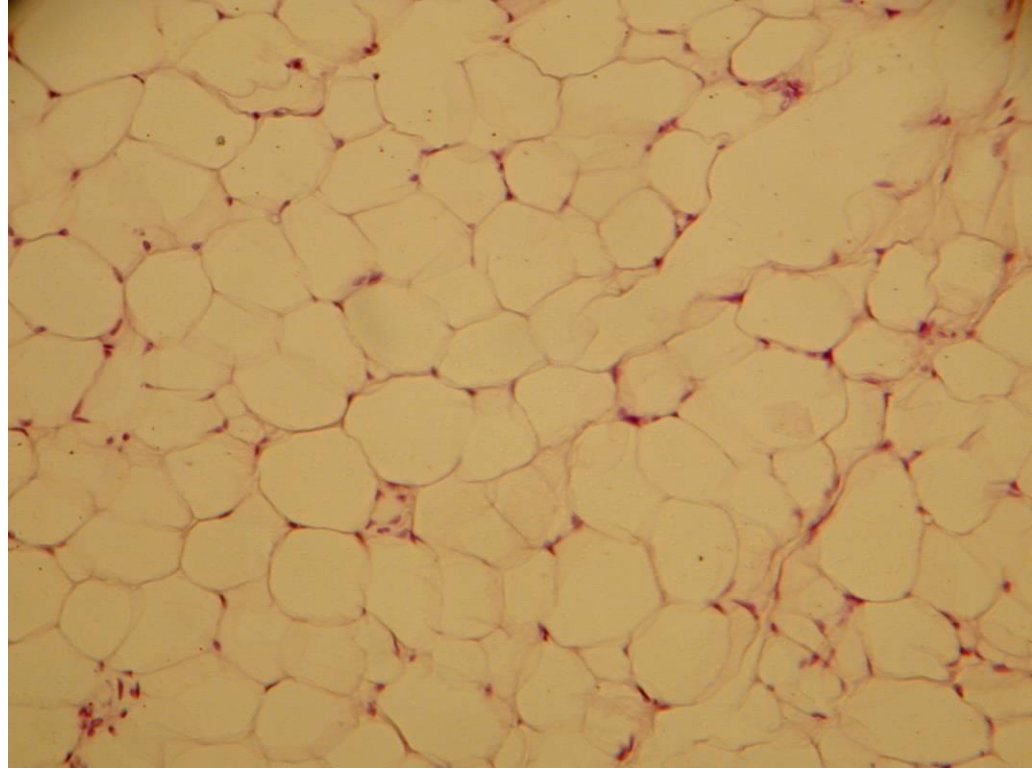
3 sejtmag



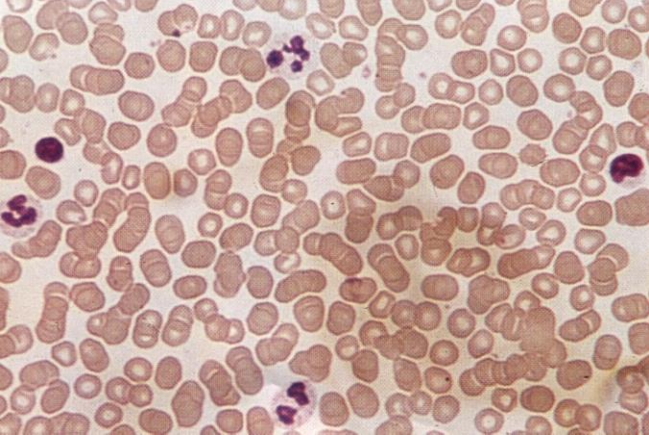
Tömöttrostos kötőszövet (ínszövet)



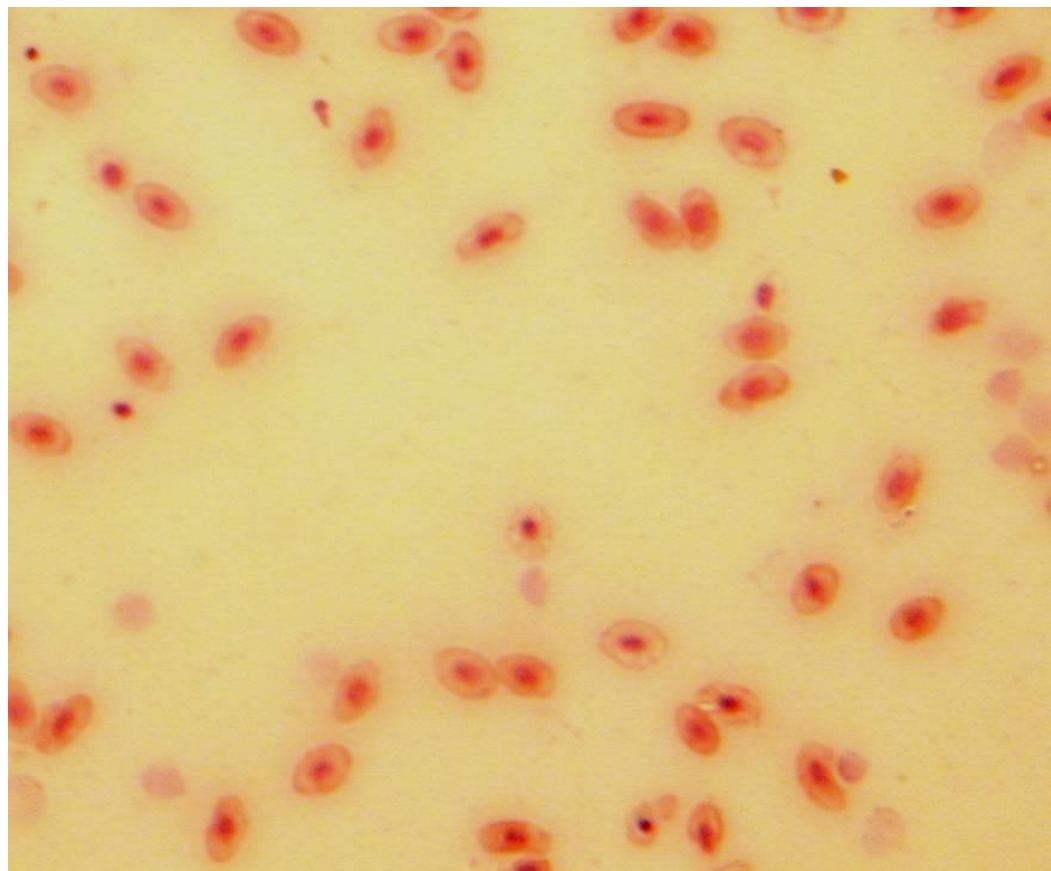
Zsírszövet



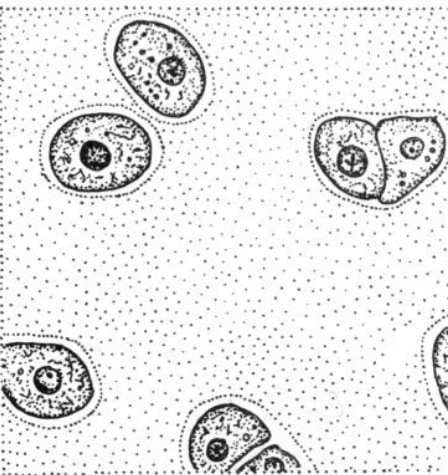
zsírsejt kötőszöveti rostok



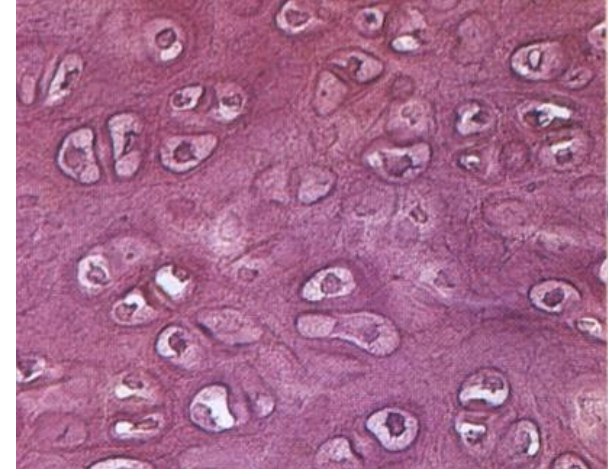
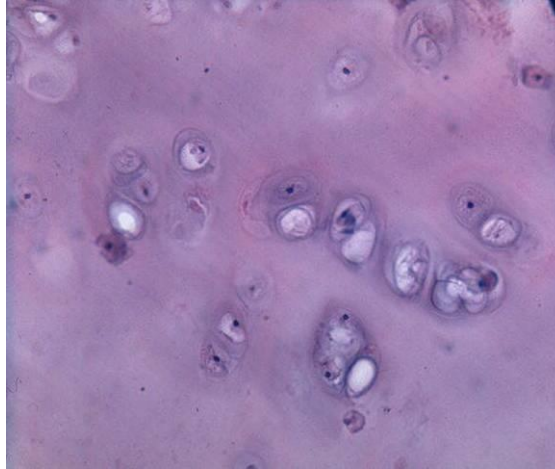
Emberi vér



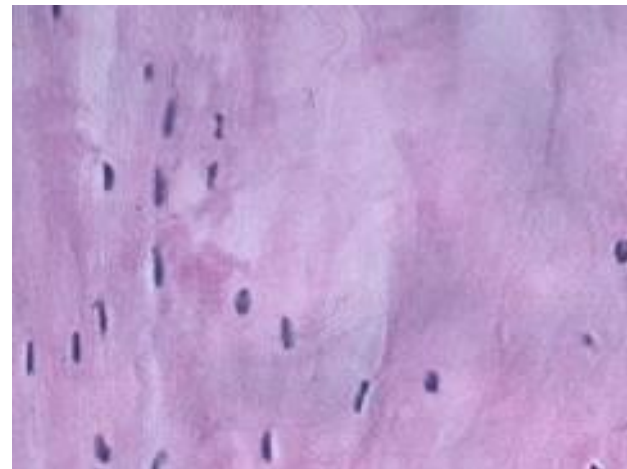
Béka vére



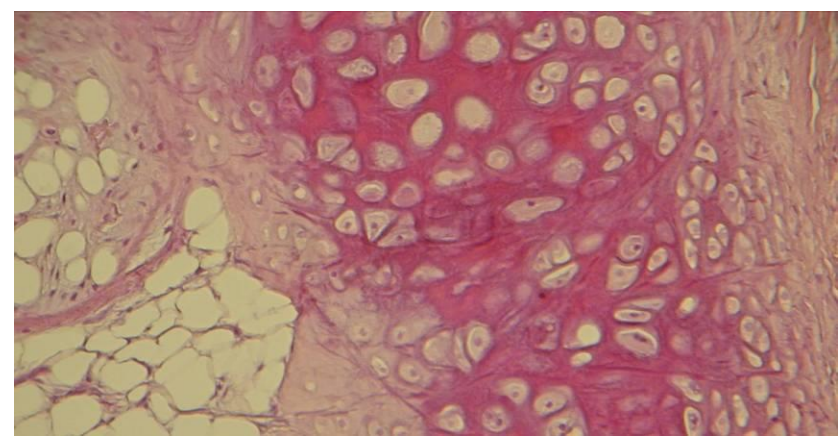
Üvegporc



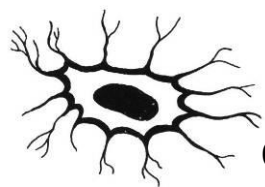
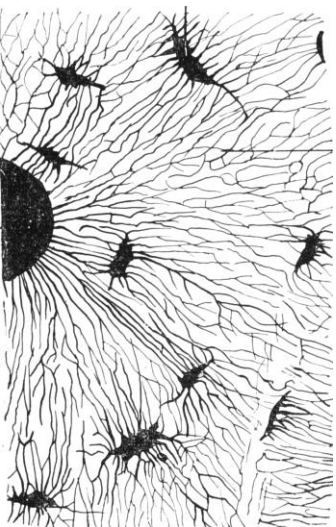
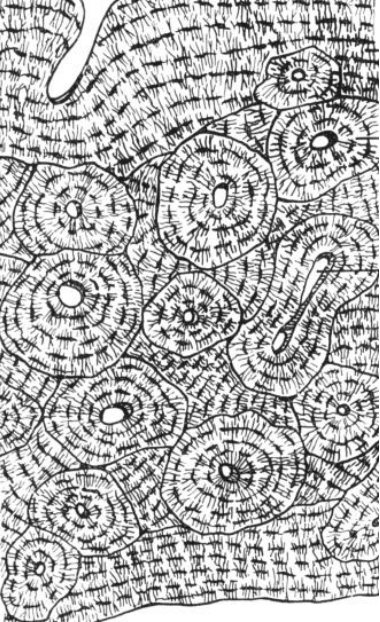
Kollagén rostos
porc



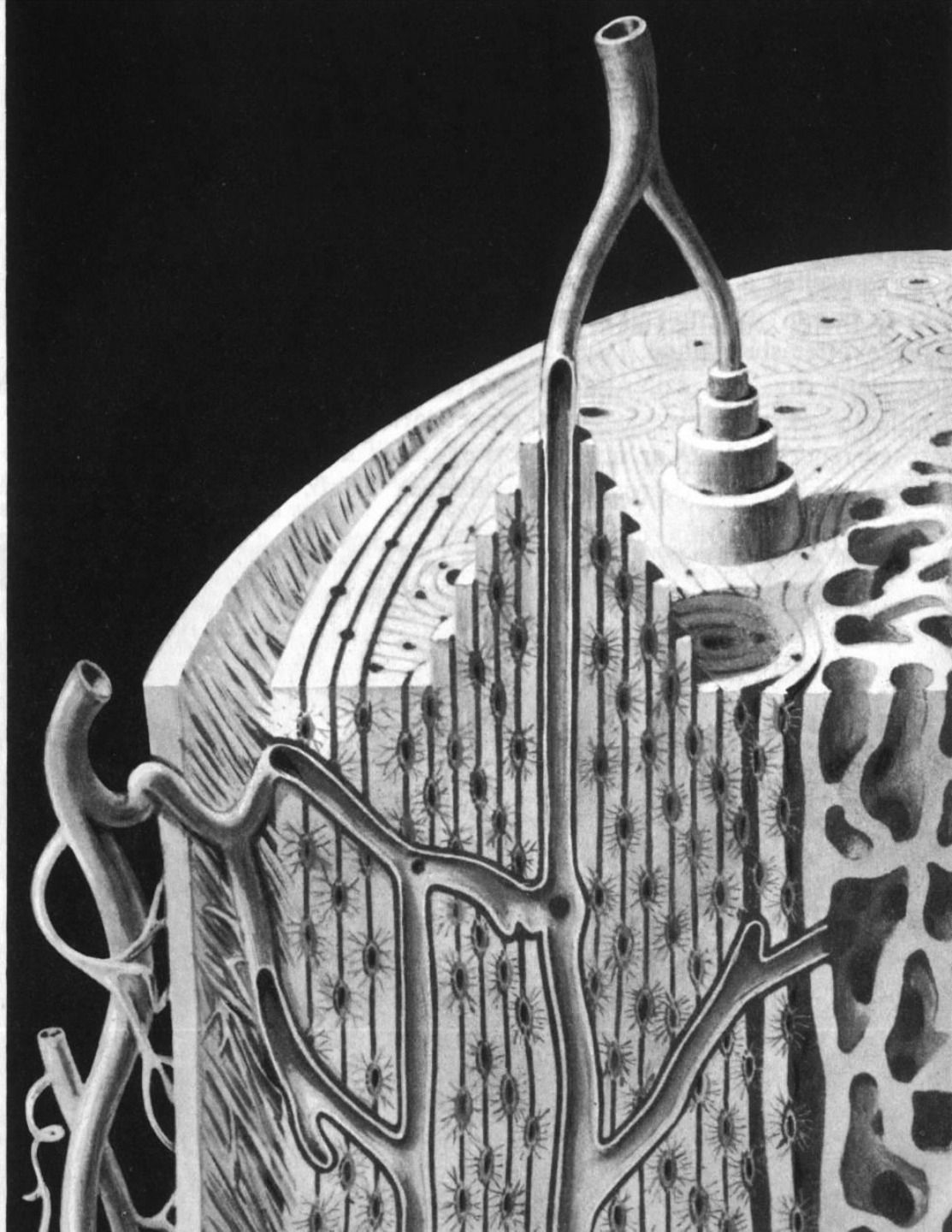
Rugalmas rostos porc
(fülkagyló)



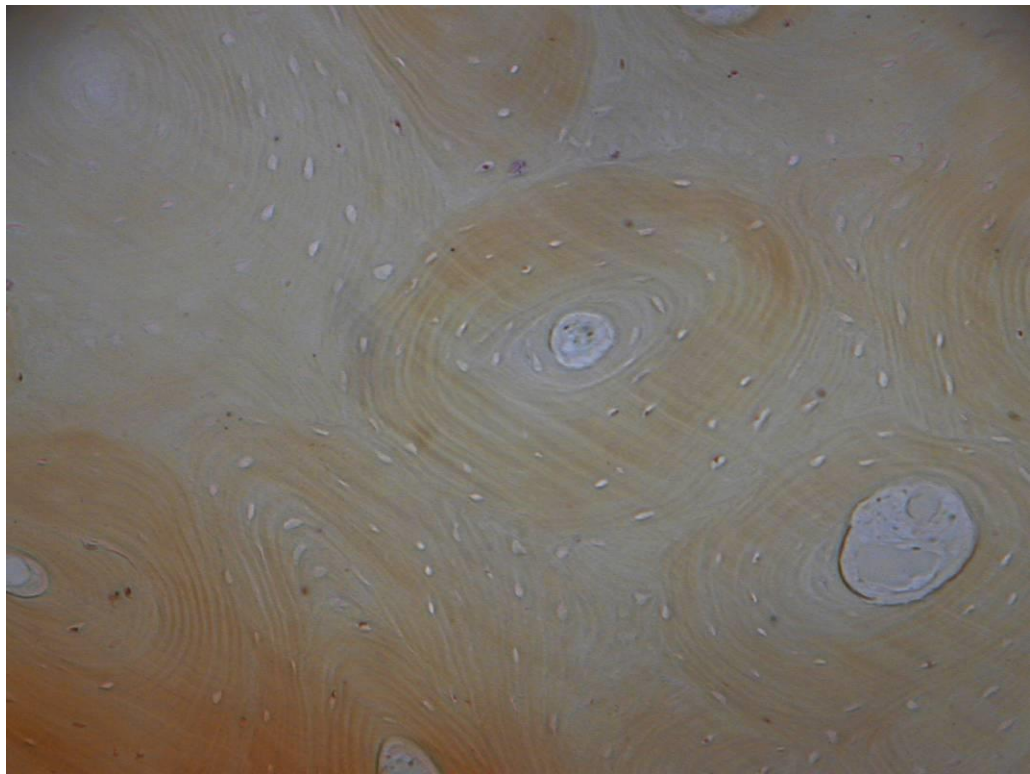
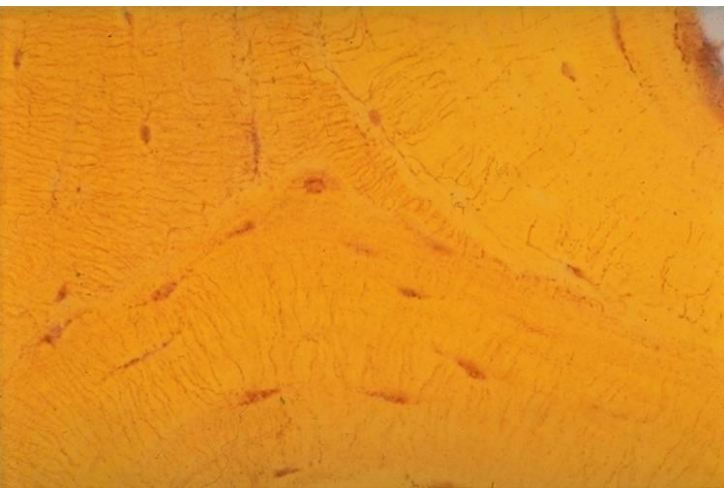
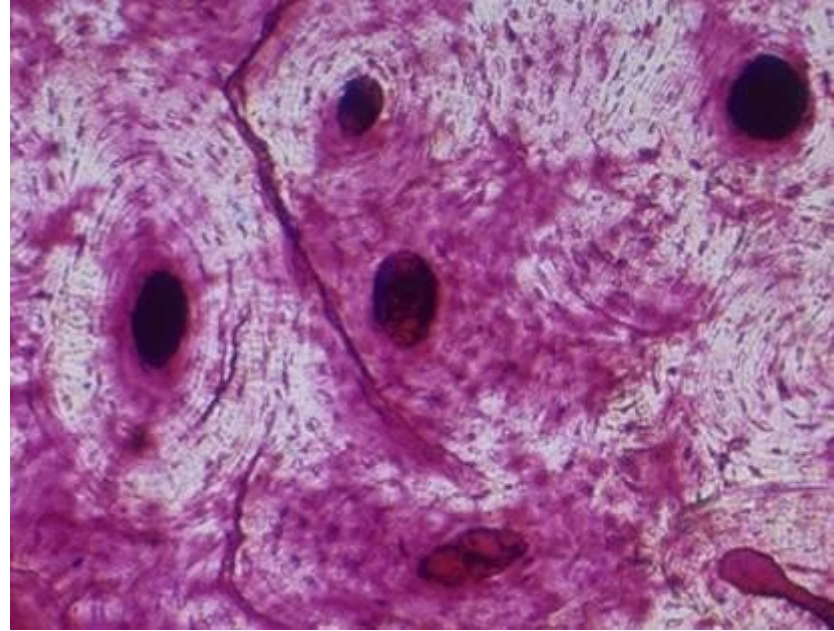
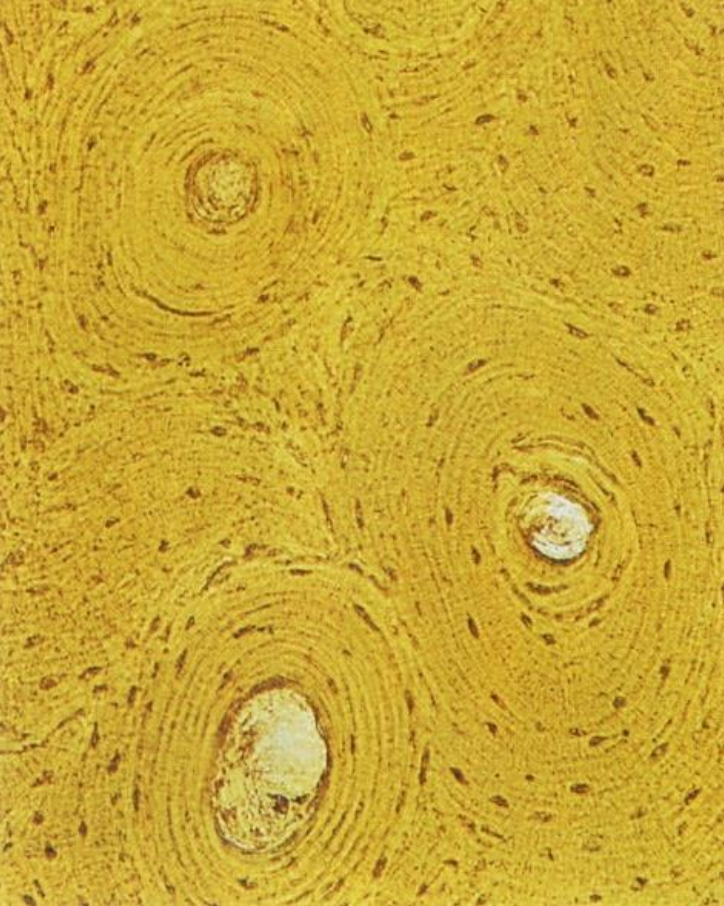
Csont- szövet



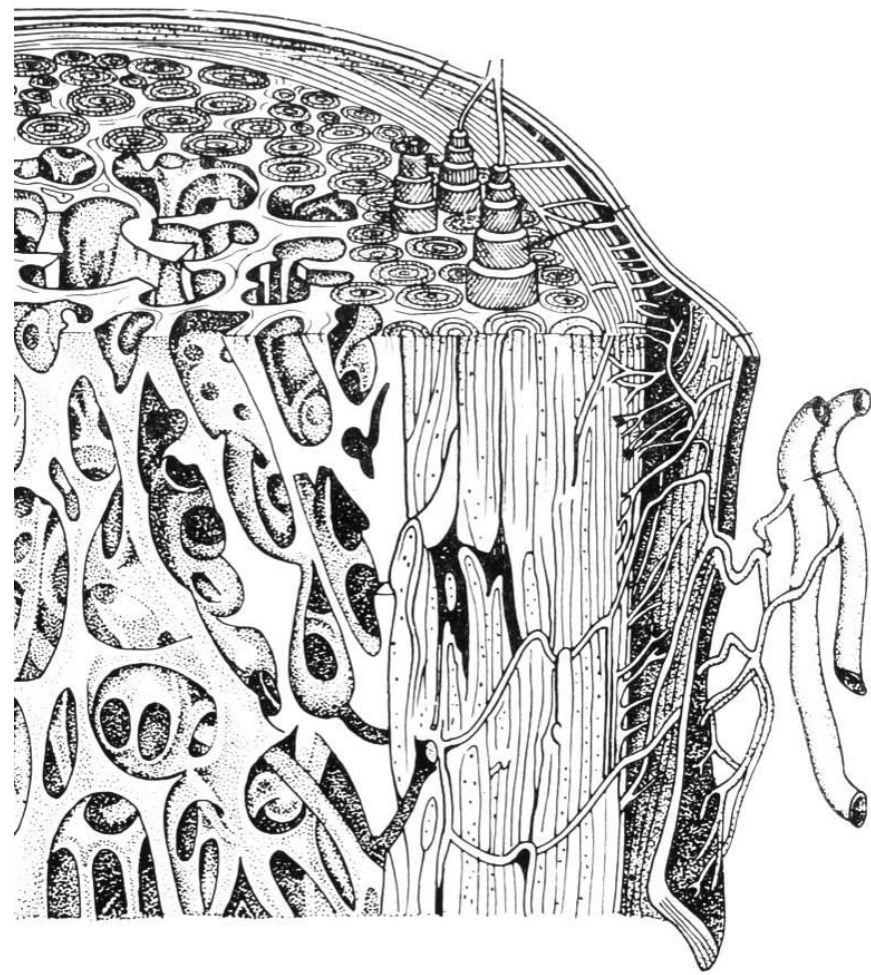
csontsejt

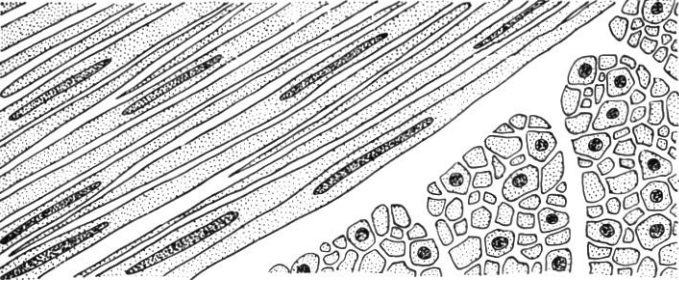


Csont- szövet



A csont szerkezete





hosszm.

keresztmetszet

Simaizomszövet

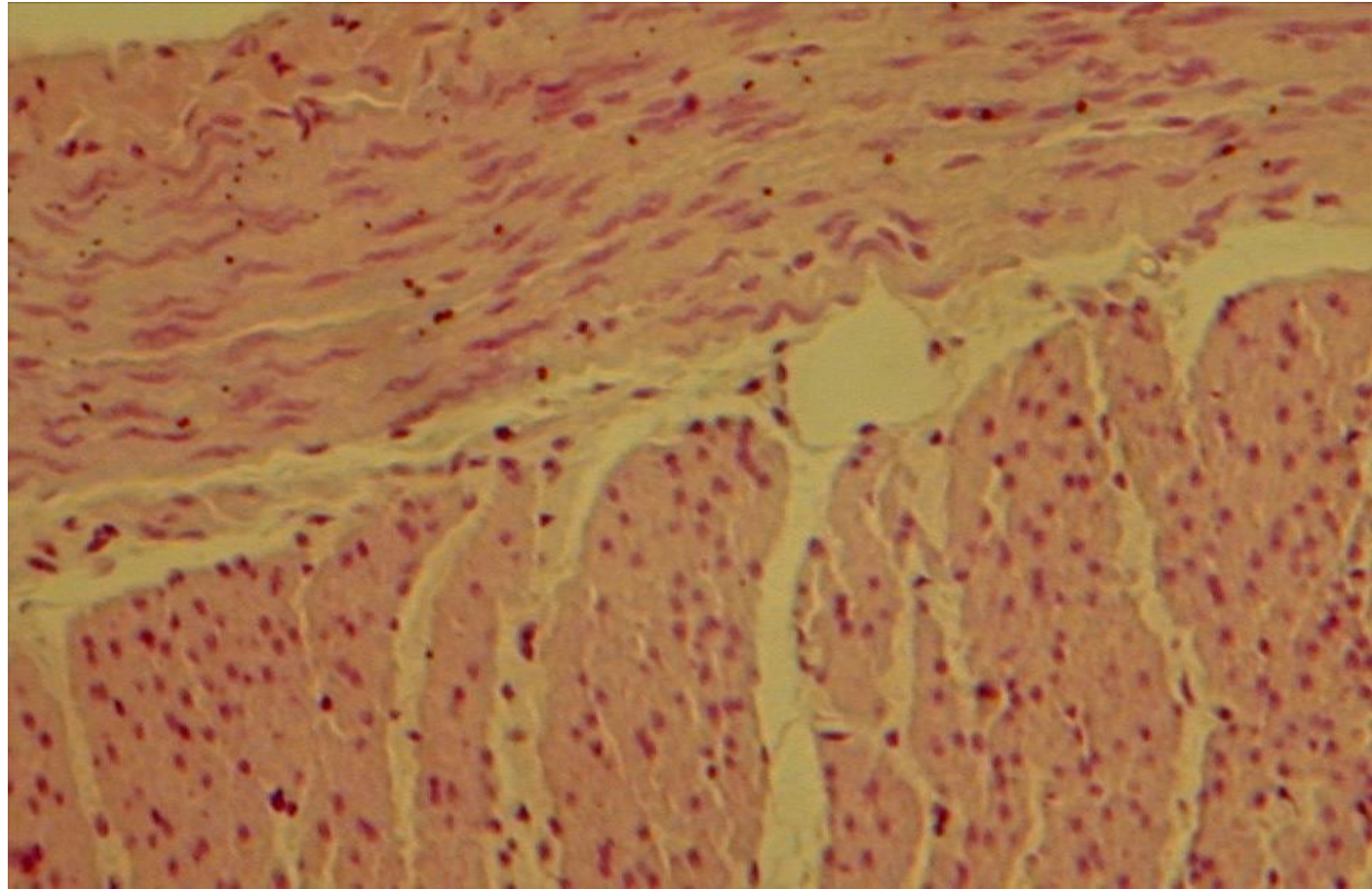


izolált simaizomsejt

sejtmag

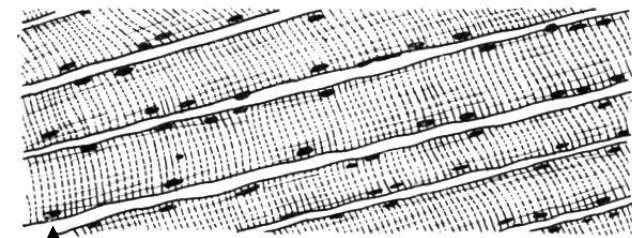
Gyomorból

hosszmetszet

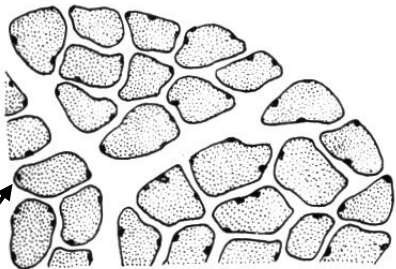


keresztmetszet

Harántcsíkolt izomszövet

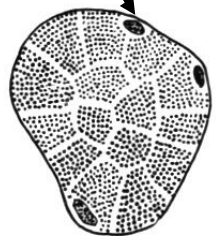


hosszmetszet



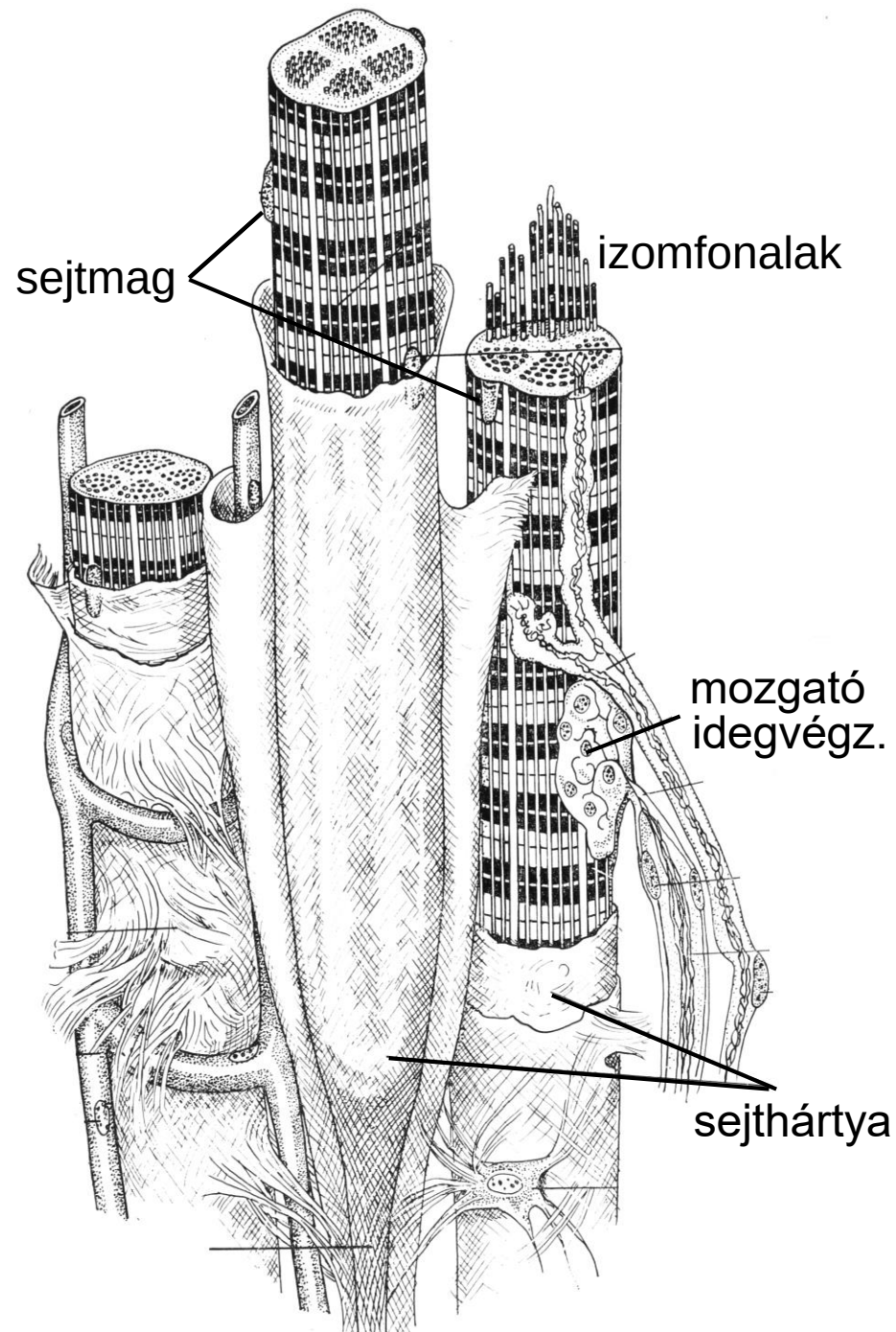
keresztmetszet

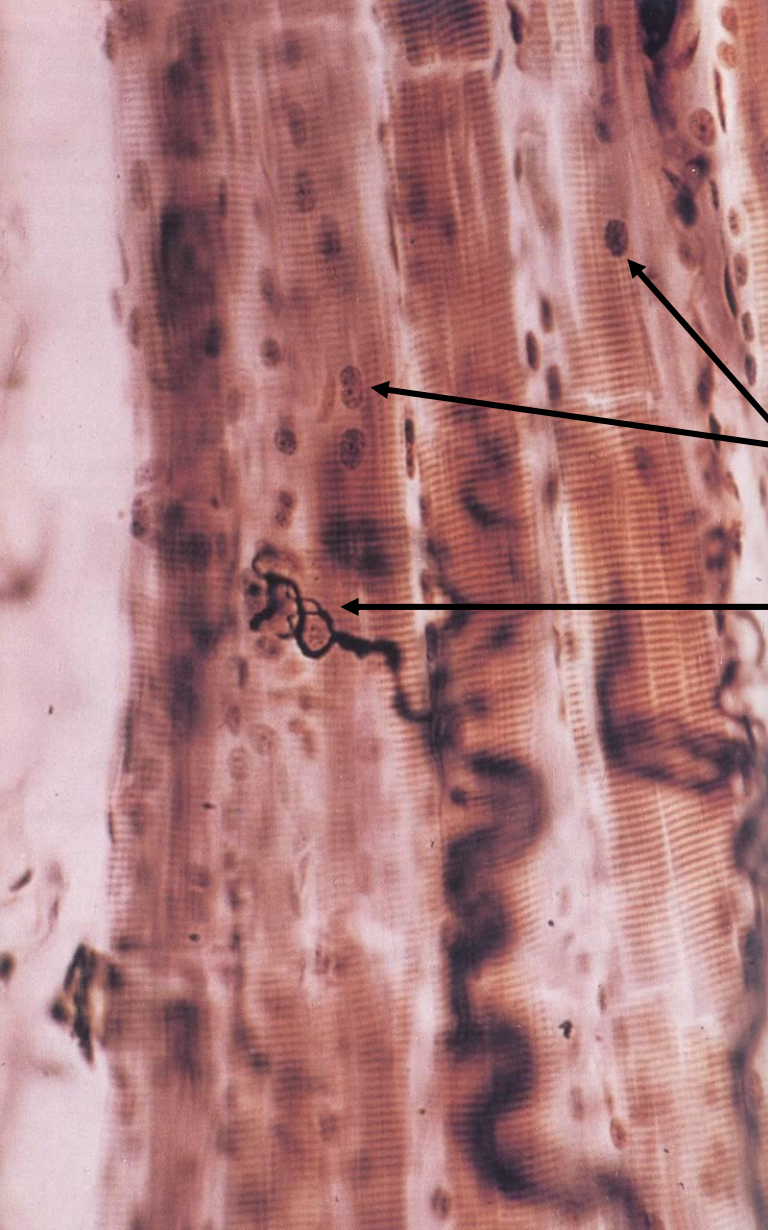
sejtmag



egy izomrost

keresztmetszete



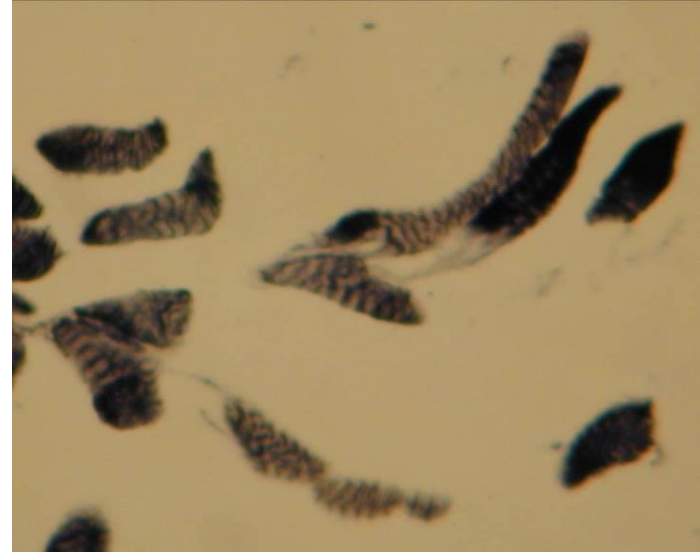


Haránt-
csíktolt
izomszövet

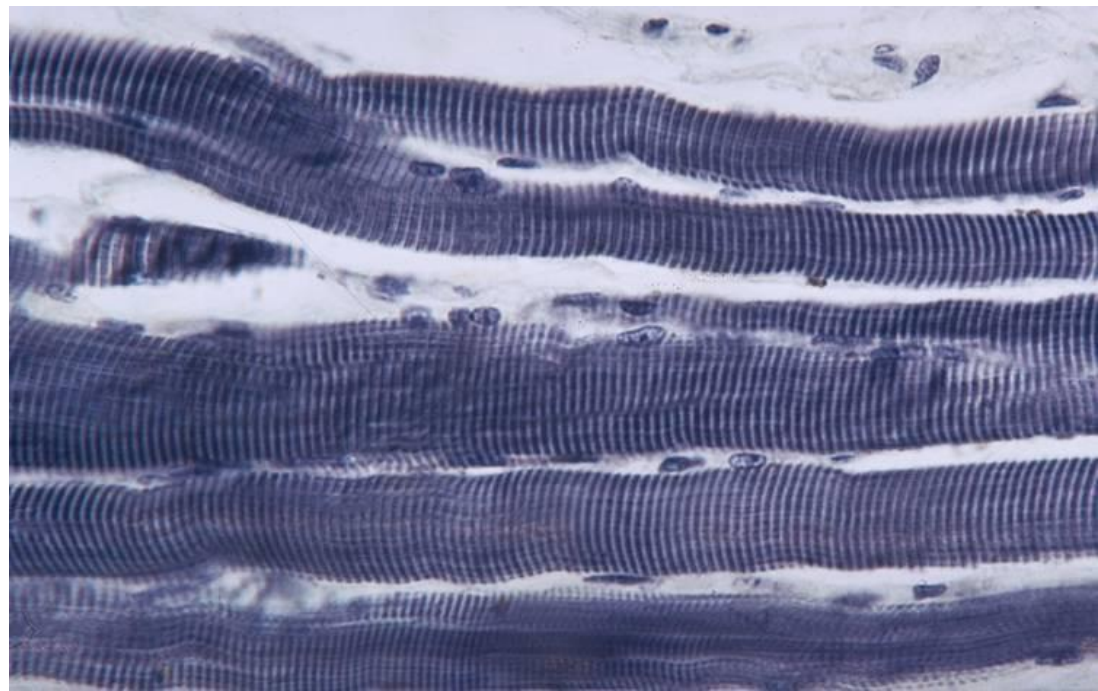
sejtmag

mozgató
idegvégződés

emberből

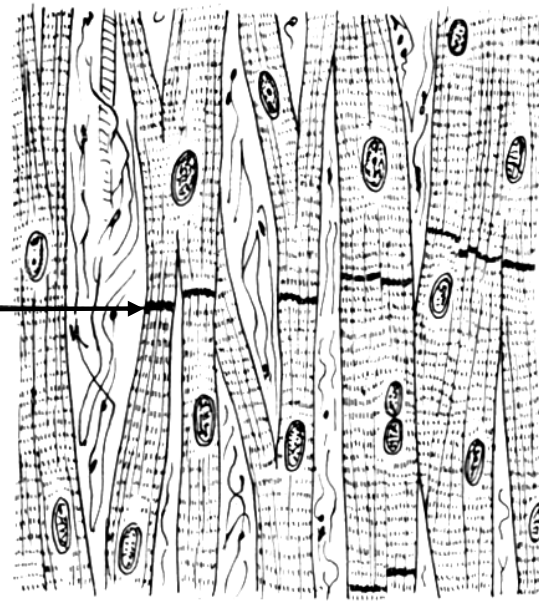


rovarból



Szívizomszövet

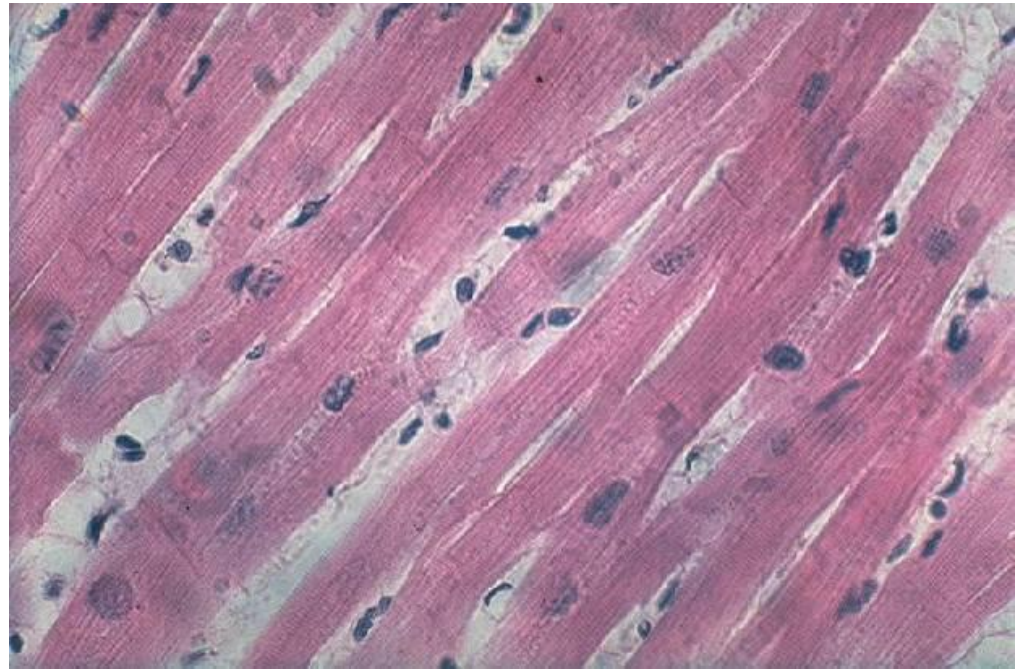
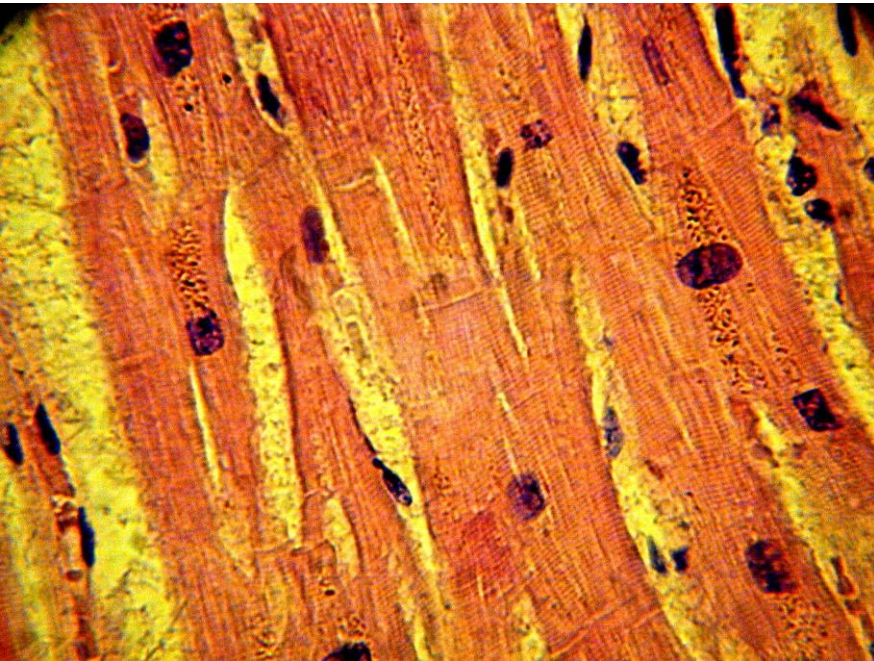
Ébert-féle vonal



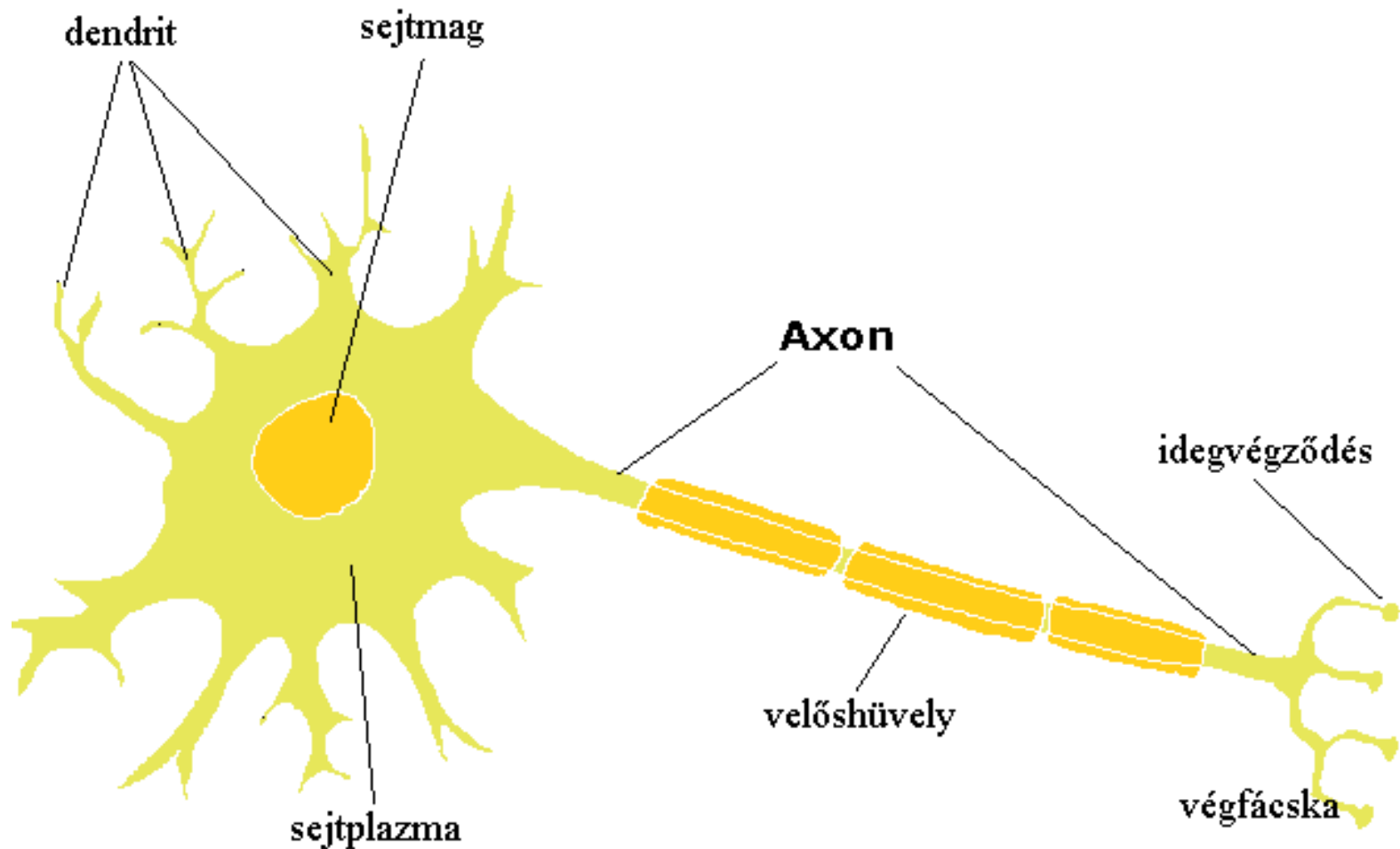
hosszmetszet



keresztmetszet



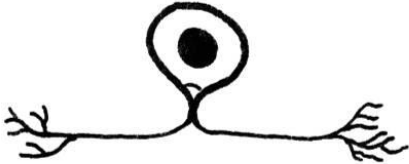
Idegsejt (neuron)



Idegsejtek típusai



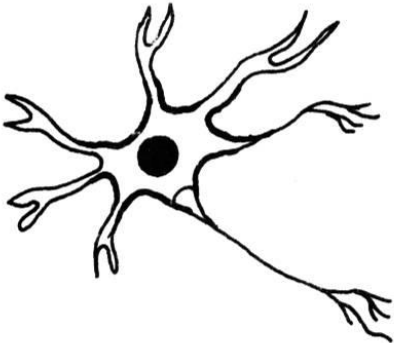
Egynyúlványú neuron (egy axonnal)



Érzőidegsejt (egy elágazó axonnal)

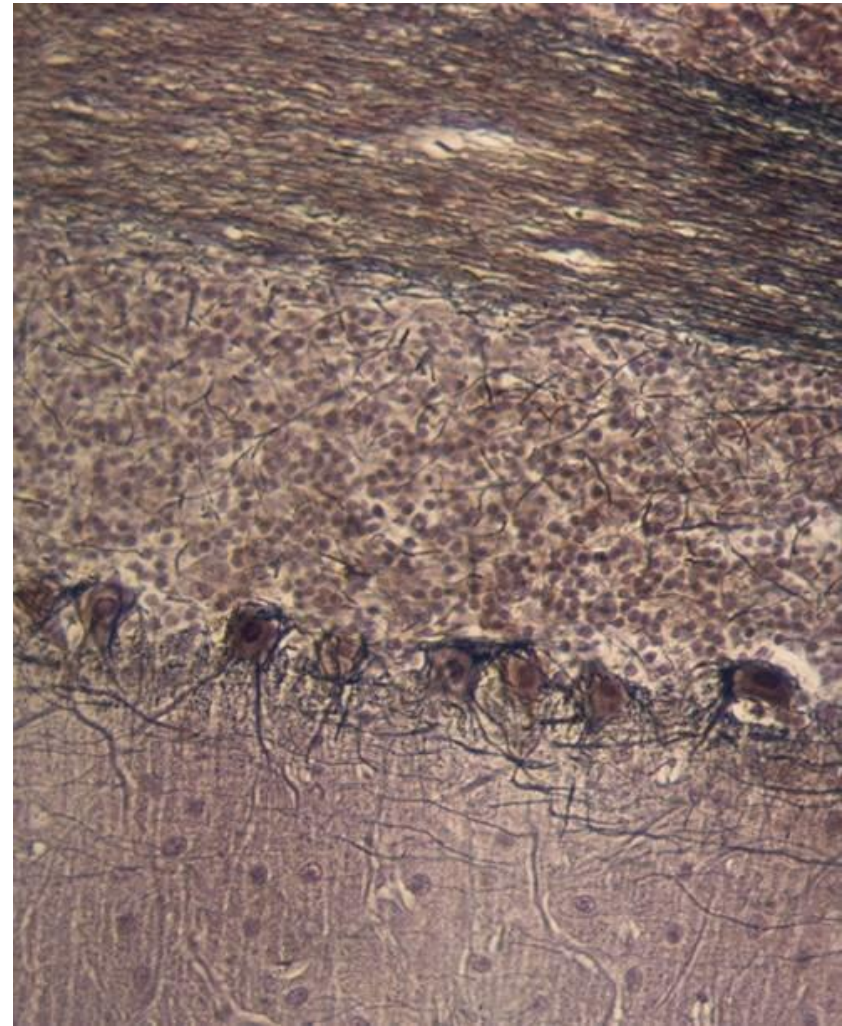
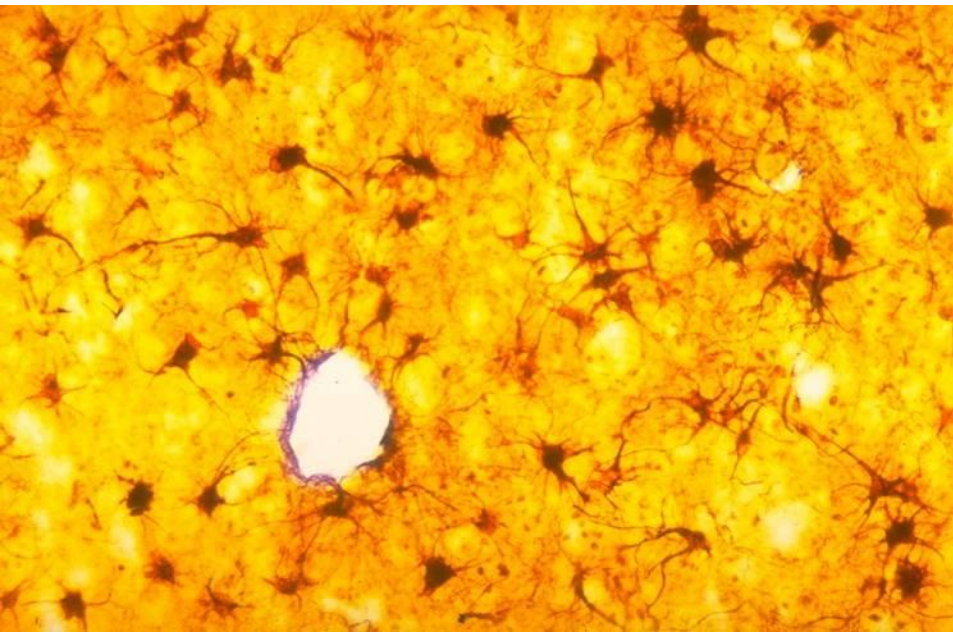
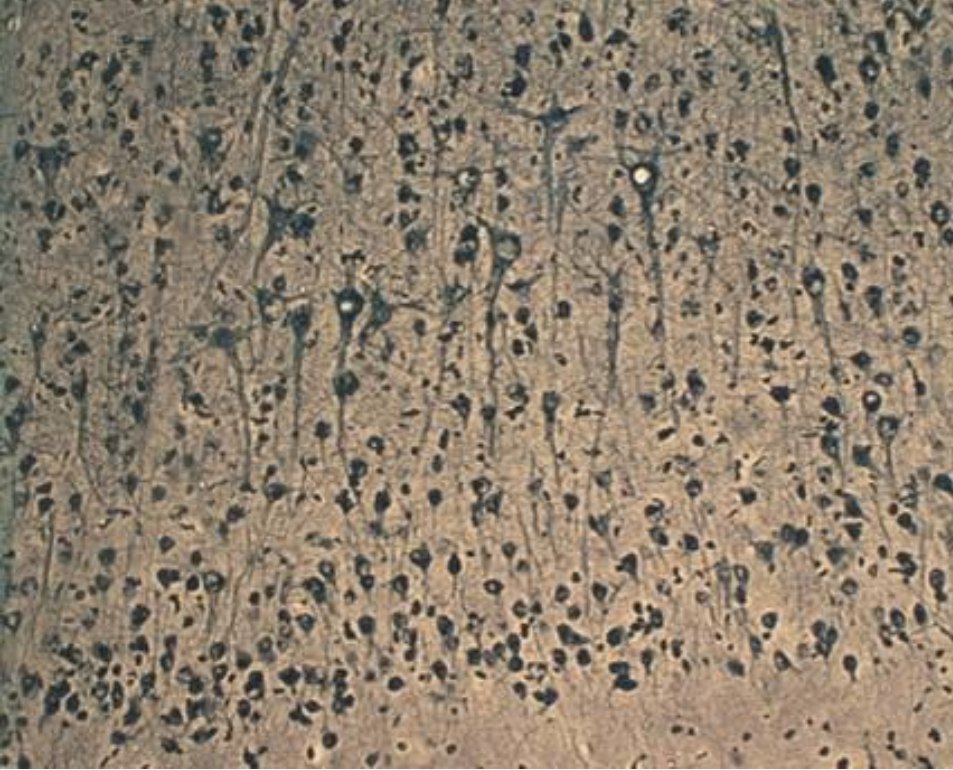


Kétnyúlványú n. (két axonnal)



Soknyúlványú n. (sok dendrittel és egy axonnal)

Idegszövet



Összeállította: **Gergely Tibor**,
a nyíregyházi Krúdy Gyula Gimnázium tanára.