



Smyslové orgány

Orgán zraku

orgán sluchu a rovnováhy

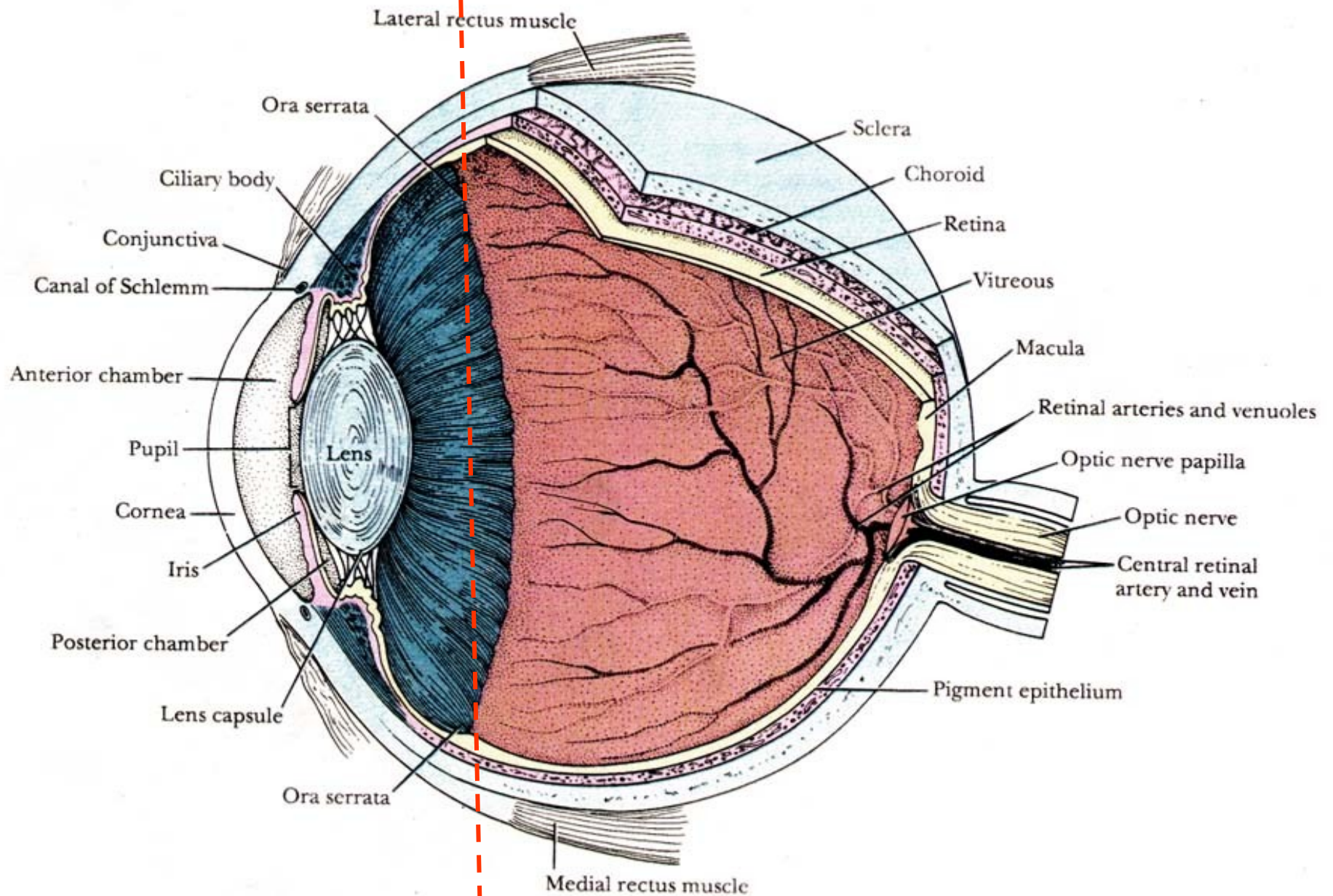
a přídatné orgány

Orgán zraku

- Oční koule (bulbus oculi)
 - přední segment oční
 - zadní segment oční
- Fasciculus opticus
- Víčko (palpebra)
- Slzná žláza (gl. lacrimalis)

Přední segment

Zadní segment



Stěna oční koule

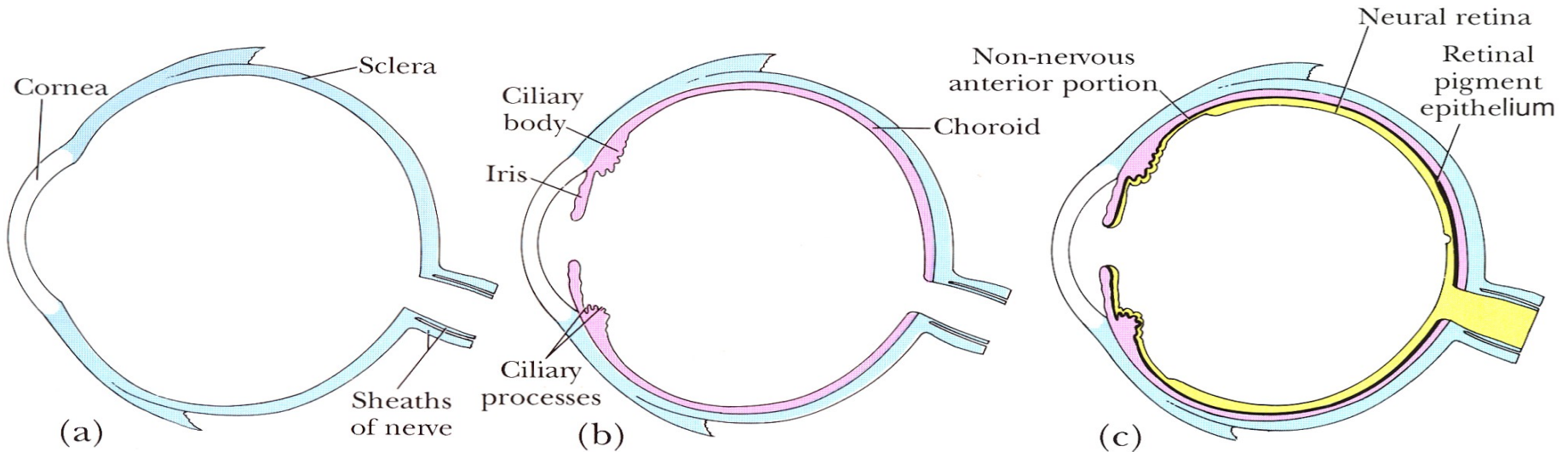
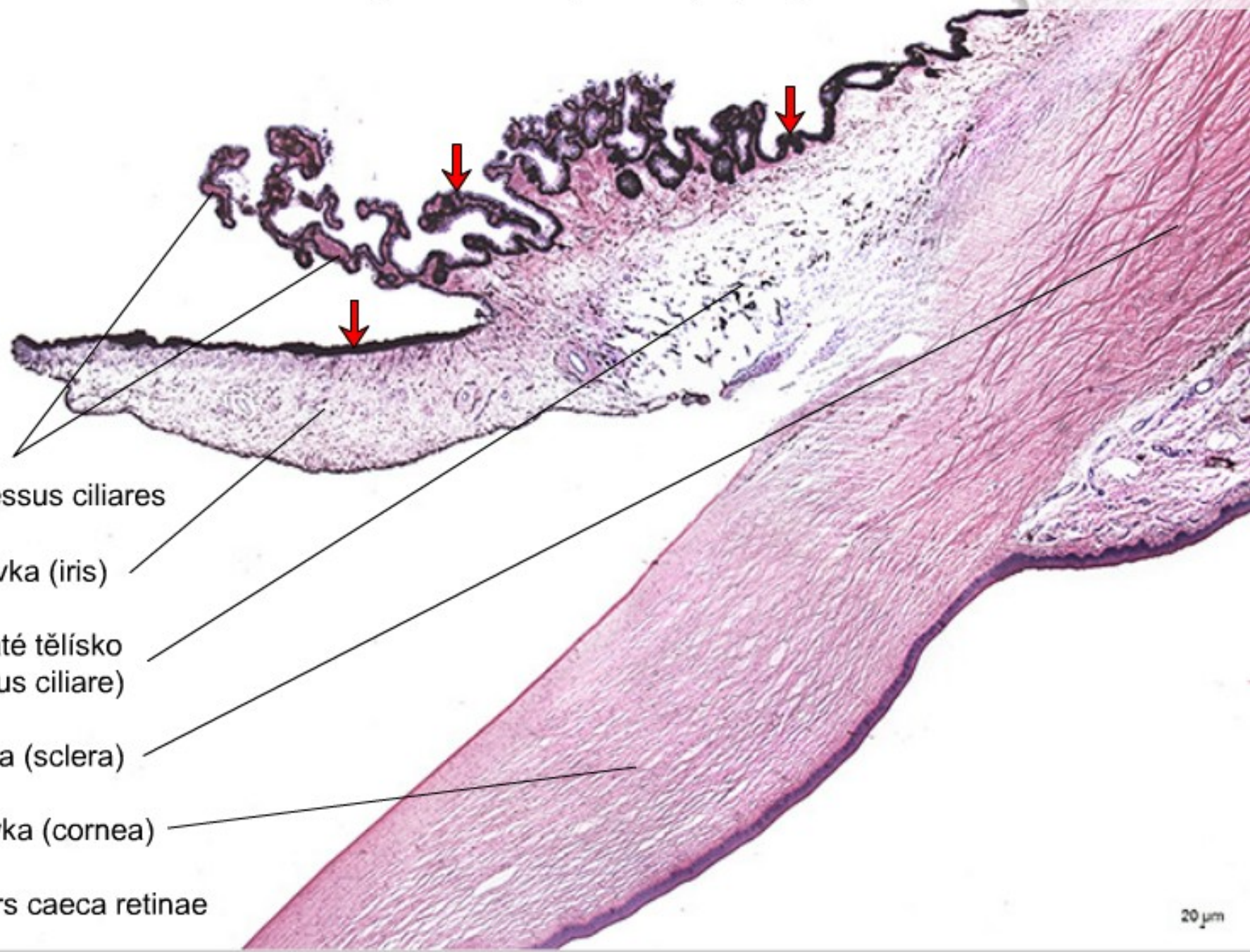


Figure 23.1. Schematic diagram of the layers of the eye. The layers are organized in three separate concentric layers: an outer supporting layer, the *corneoscleral*

coat (a), a middle vascular coat, the *uvea* (b), and an inner photosensitive layer, the *retina* (c).

	Tunica externa (fibrosa)	Tunica media (vasculosa)	Tunica interna (nervosa)
přední segment	cornea	iris corpus ciliare	pars caeca retinae
zadní segment	sclera	choroidea	pars optica retinae

Přední segment oční – přehled, (HE), objektiv 2,5×



processus ciliares

duhovka (iris)

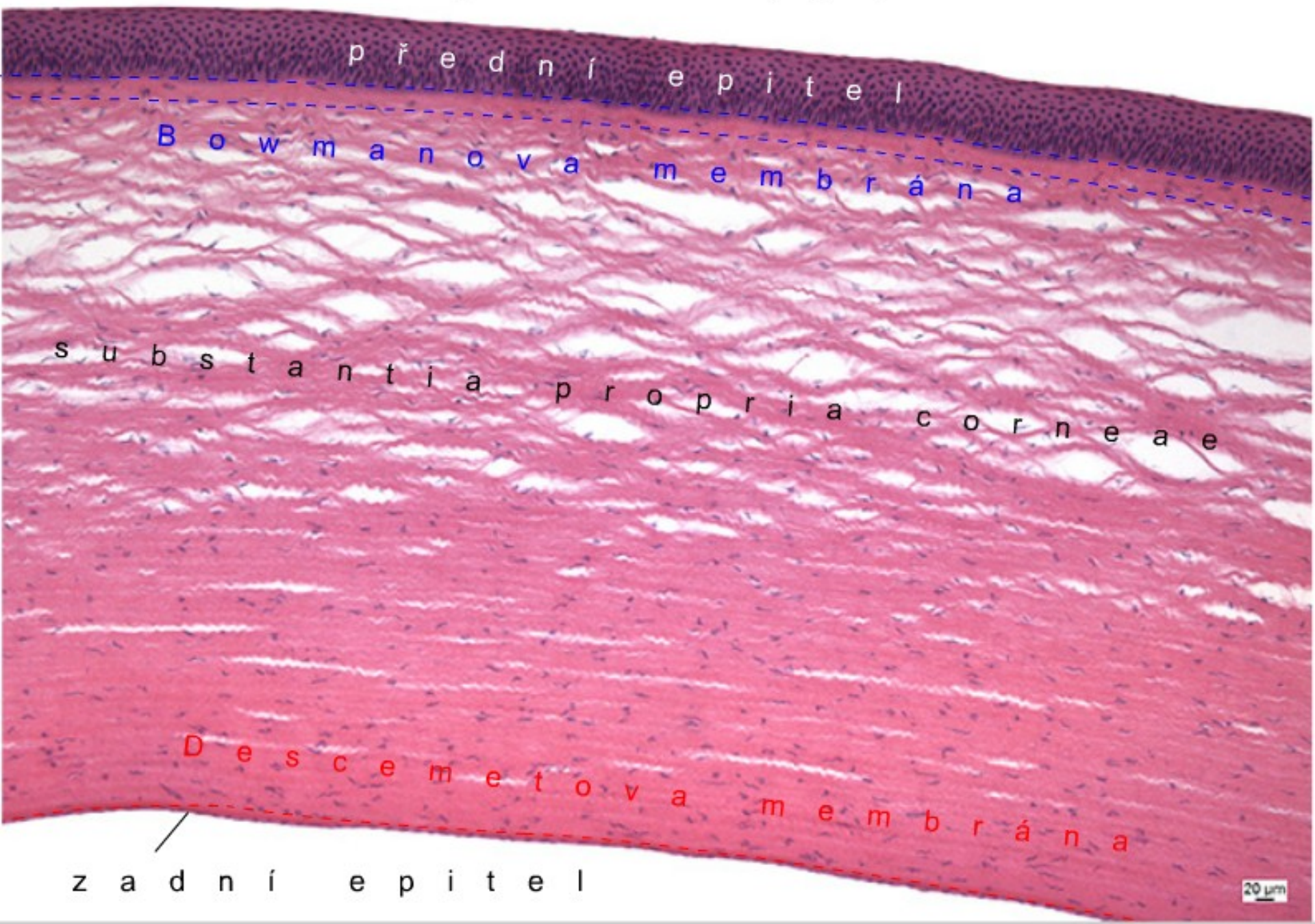
řasnaté tělísko
(corpus ciliare)

bělima (sclera)

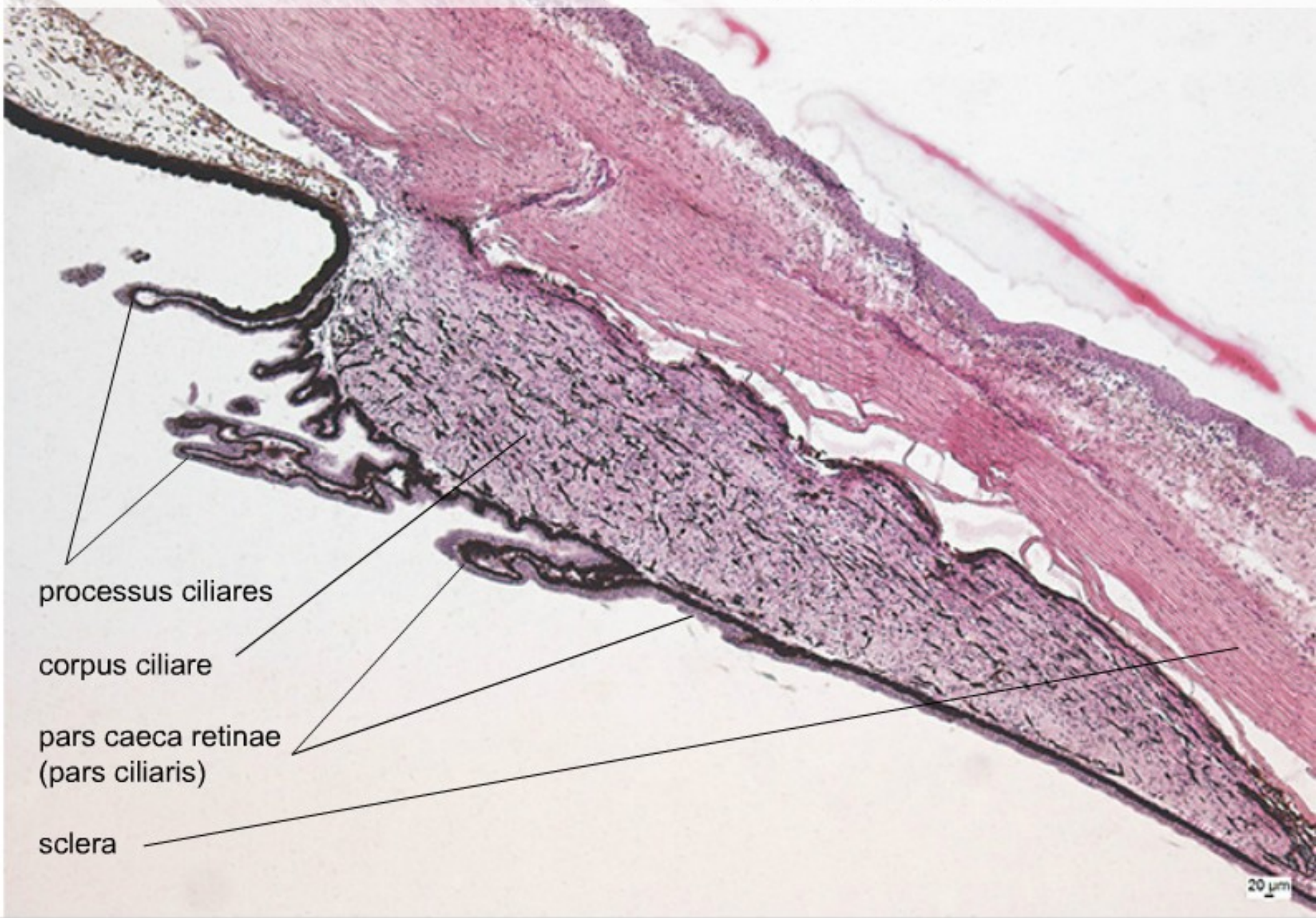
rohovka (cornea)

↓ pars caeca retinae

Přední segment oční – cornea, (HE), objektiv 10×



Přední segment oční – corpus ciliare, (impregnace), objektiv 5×



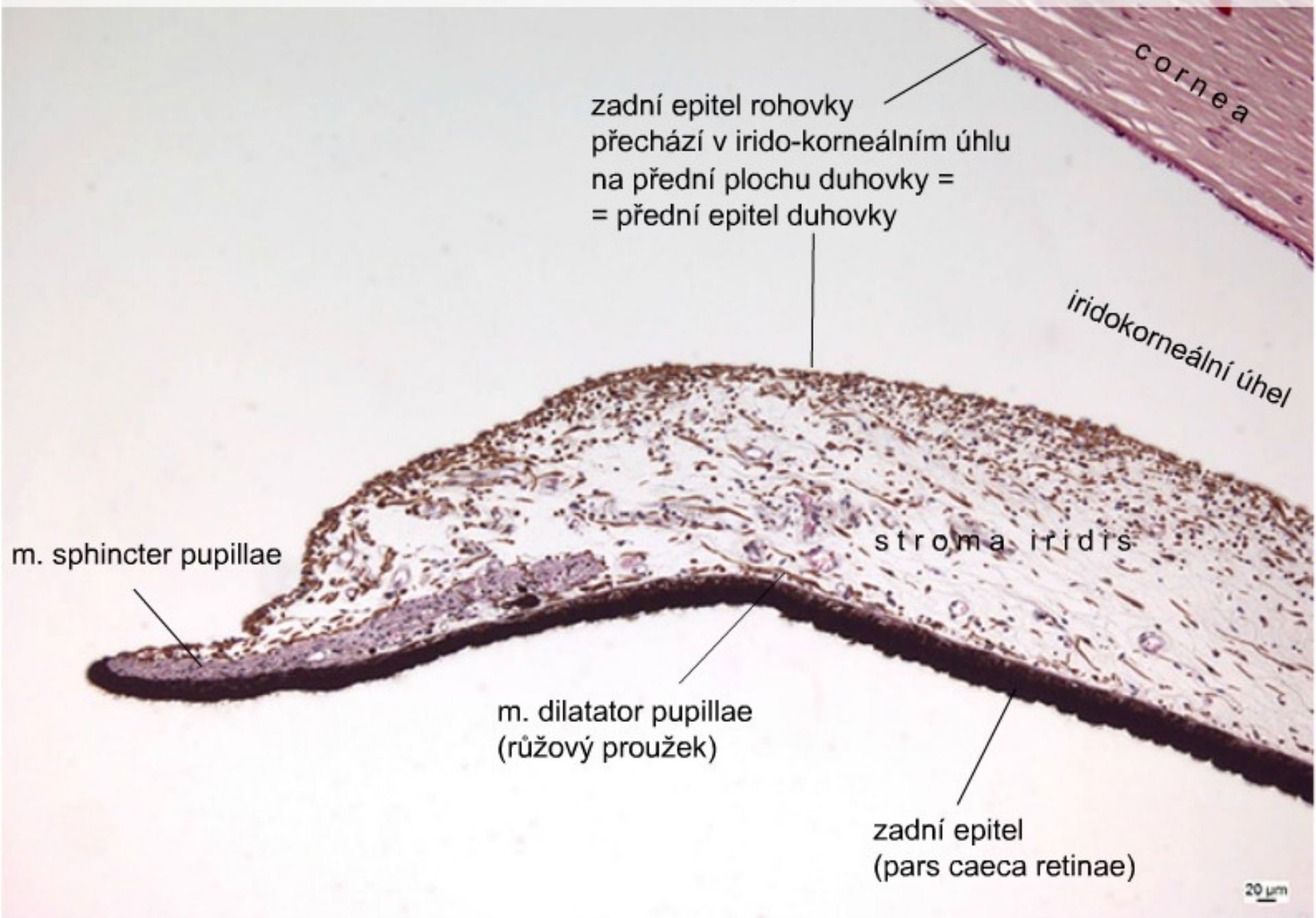
processus ciliares

corpus ciliare

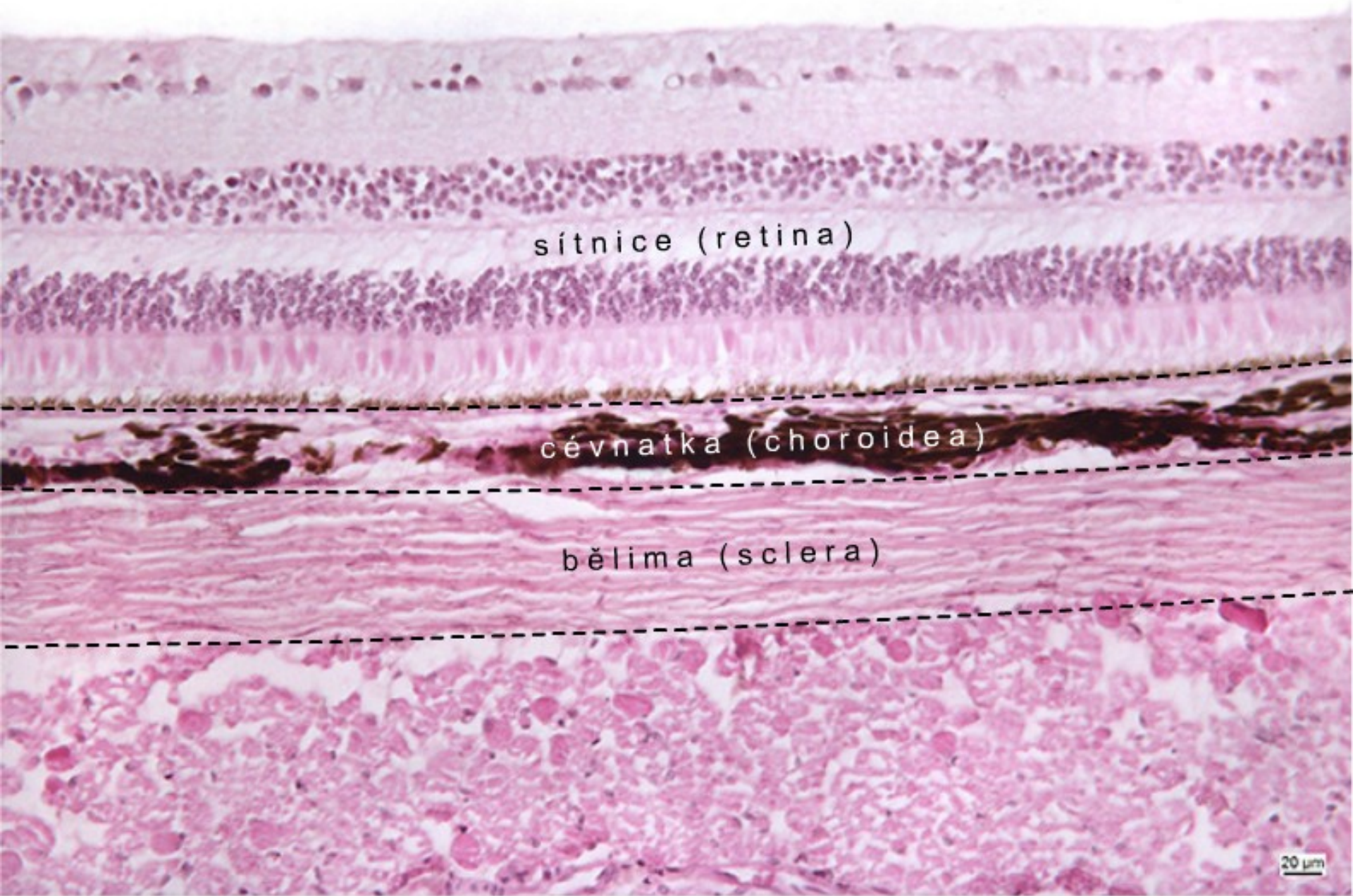
pars caeca retinae
(pars ciliaris)

sclera

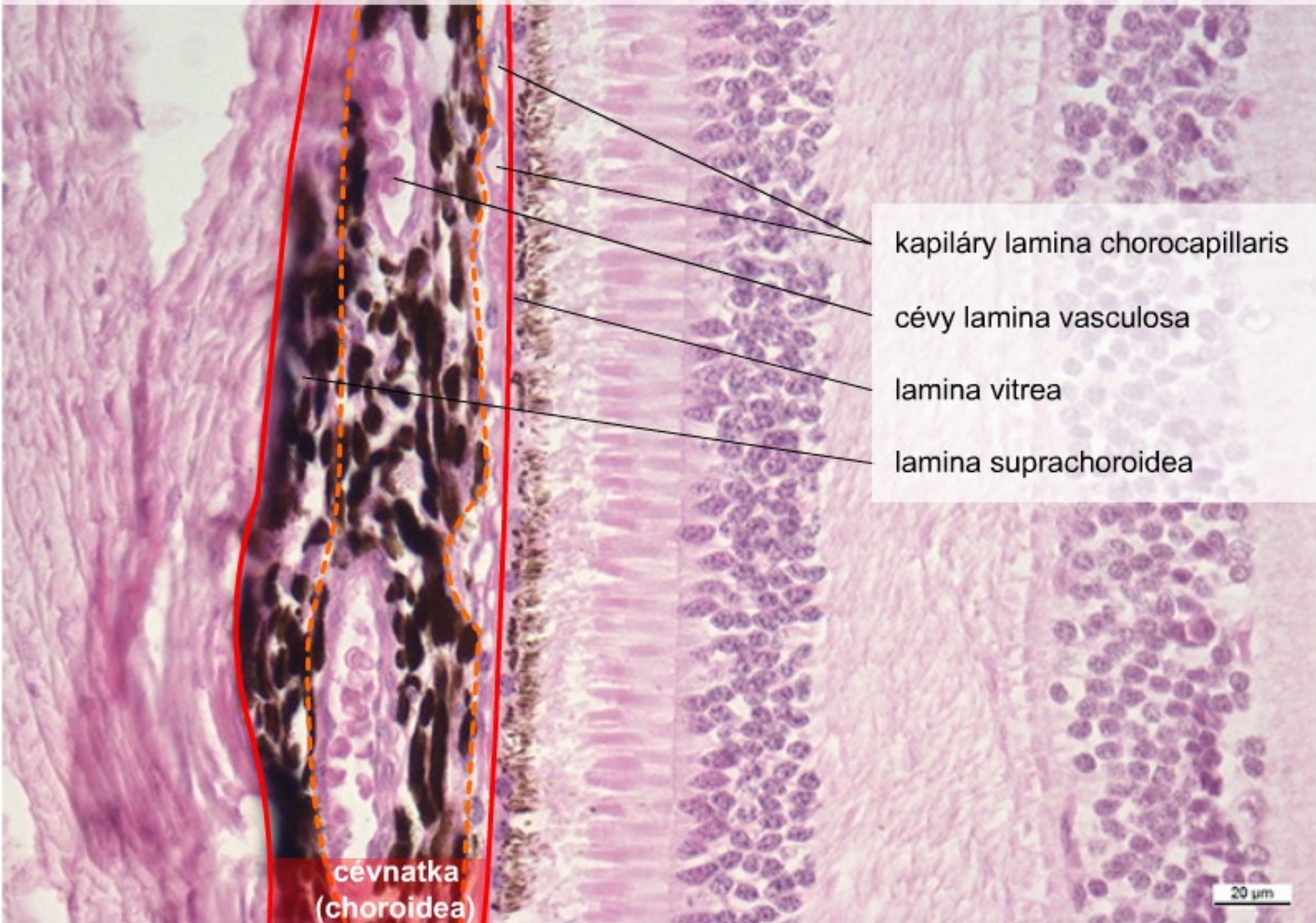
Přední segment oční – iris, (HE), objektiv 10×



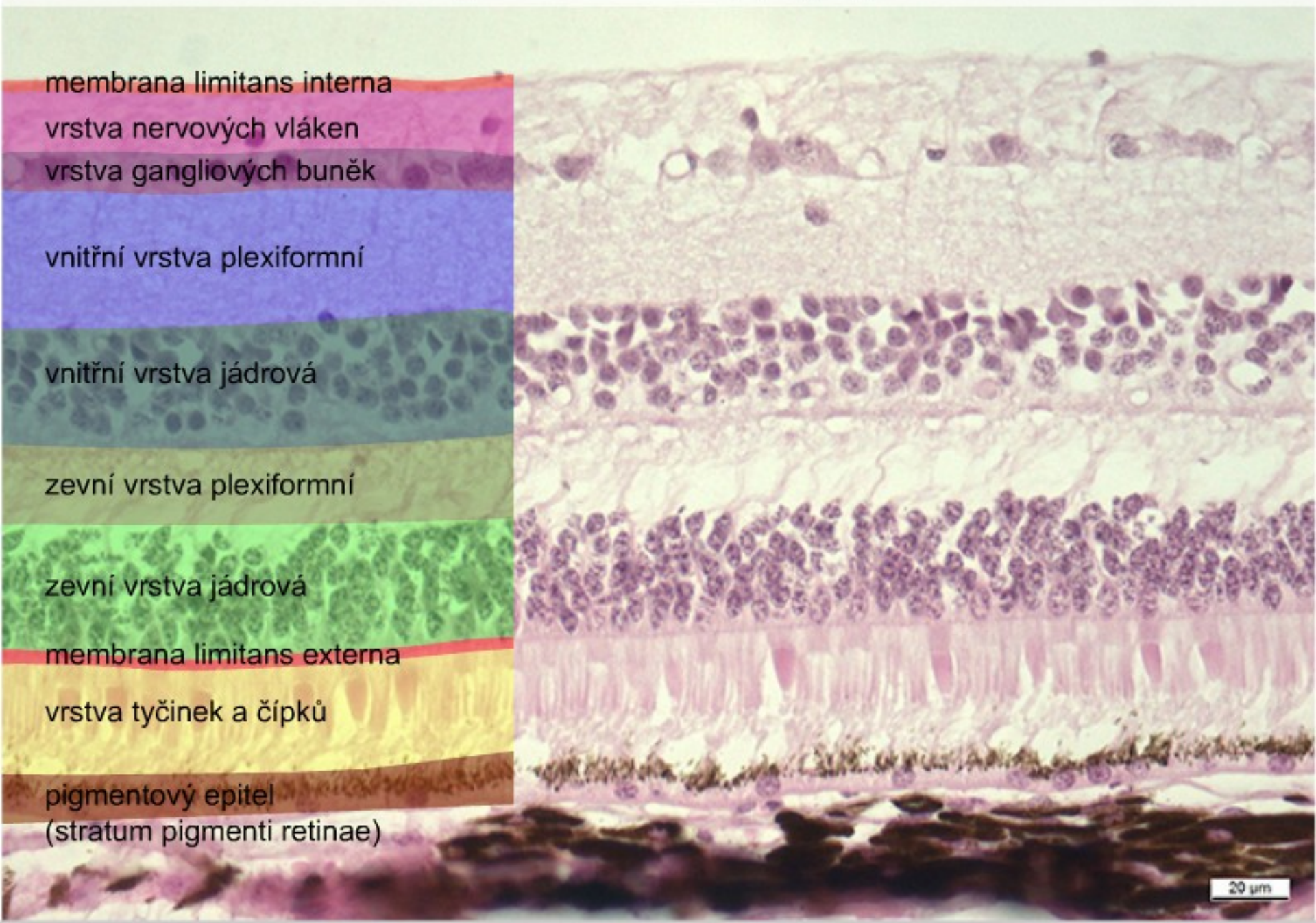
Zadní segment oční – přehled, (HE), objektiv 20×



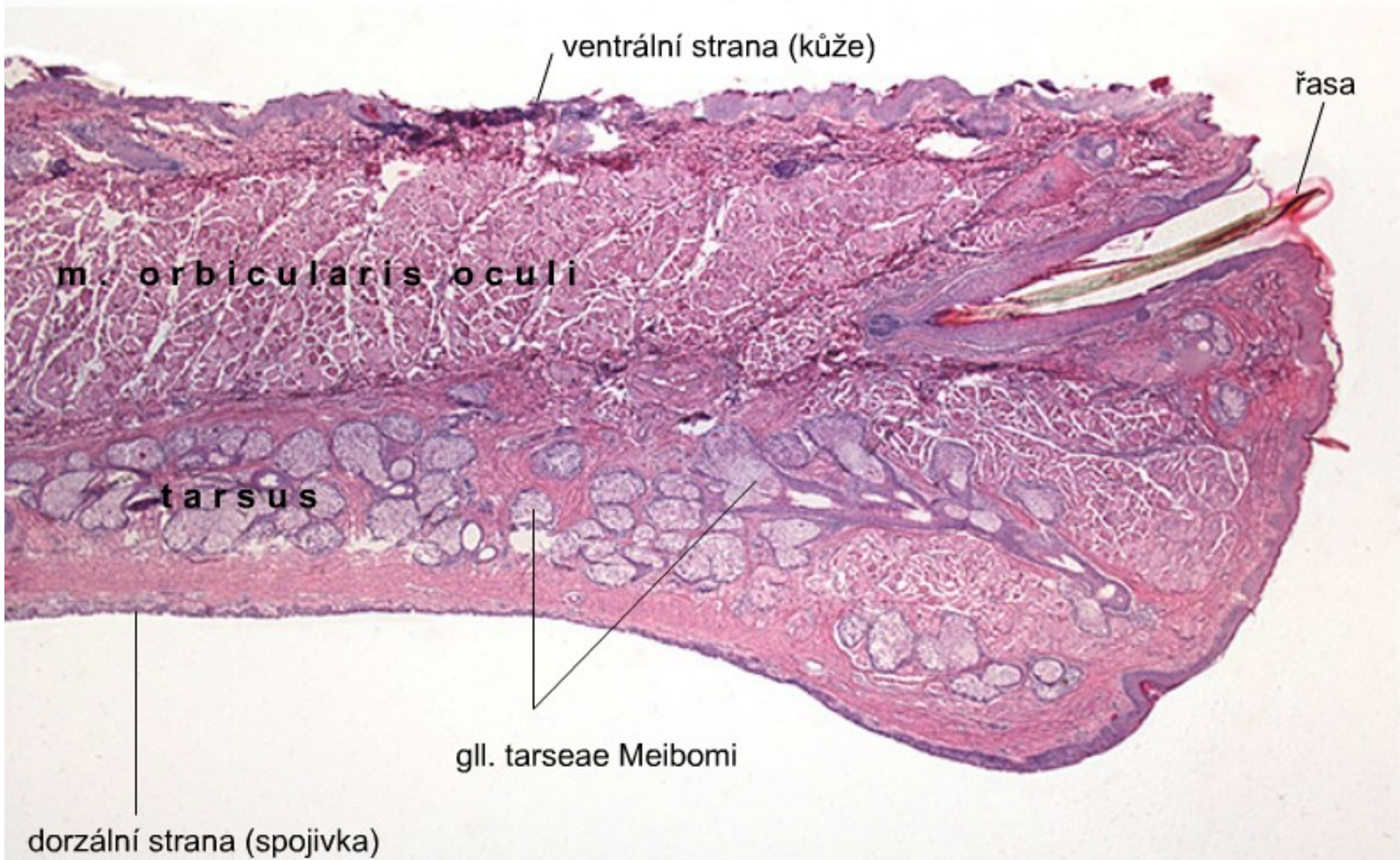
Zadní segment oční – choroidea, (HE), objektiv 40×



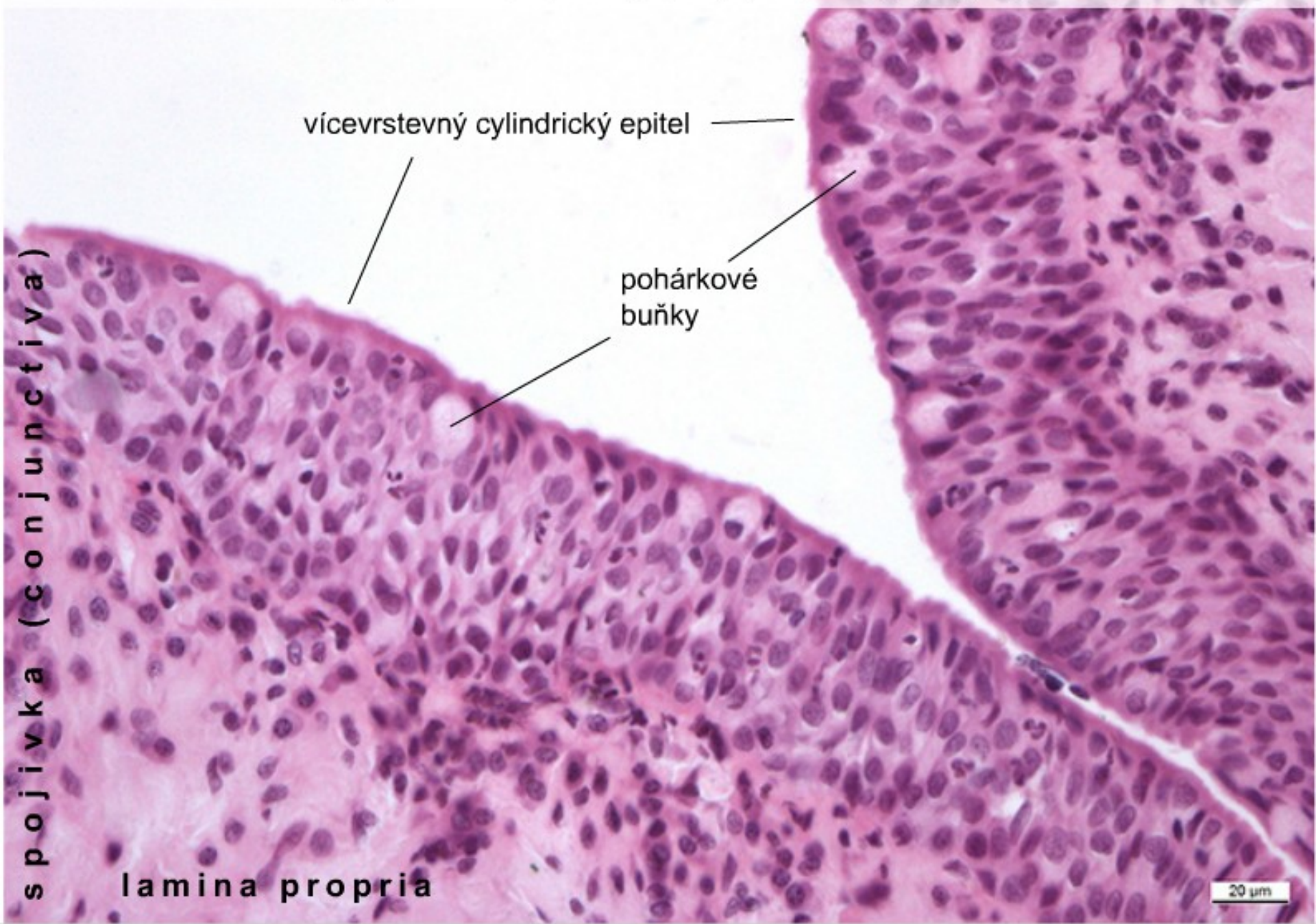
Zadní segment oční – retina, (HE), objektiv 40×



Palpebra – přehled, (HE), objektiv 2,5×



Vícevrstevný cylindrický epitel spojivky (Palpebra), (HE), objektiv 40×



vícevrstevný cylindrický epitel

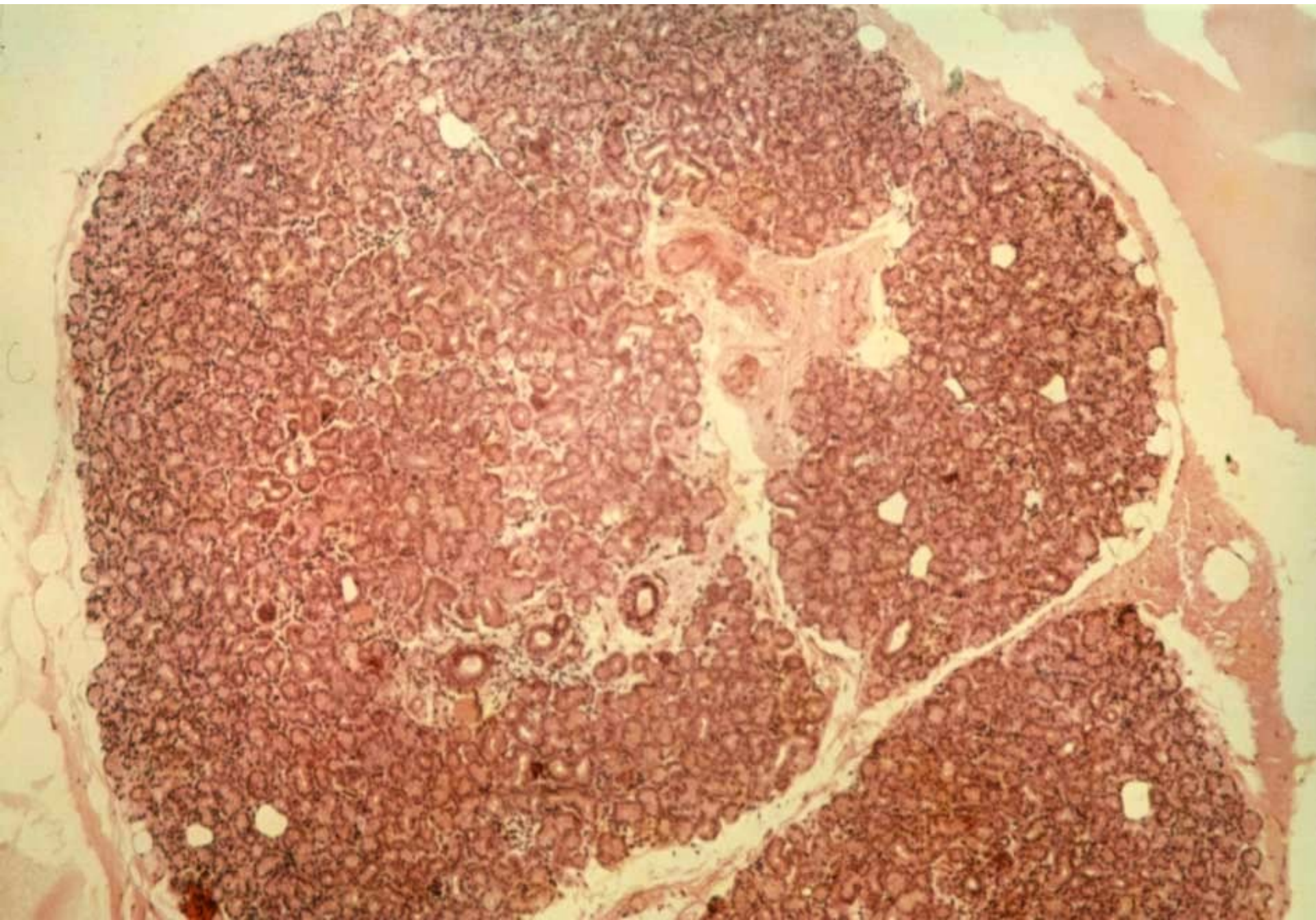
pohárkové
buňky

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lamina propria

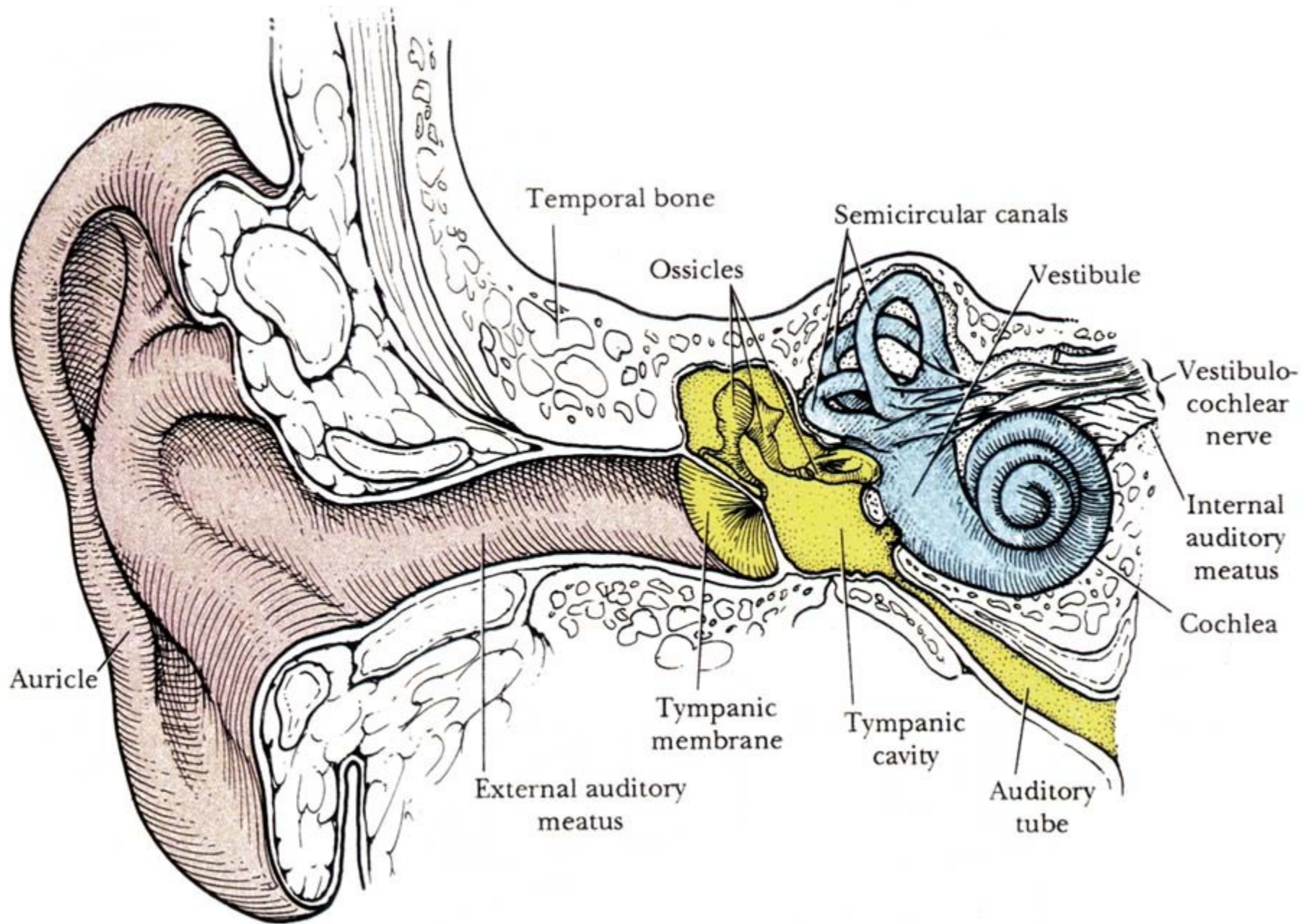
20 μm

Gl. lacrimalis



Orgán sluchu a rovnováhy

- Zevní ucho
 - boltec (auricula)
 - zevní zvukovod (meatus acusticus ext.)
 - bubínek (membrana tympani)
- Střední ucho
 - bubínková dutina (cavum tympani)
- Vnitřní ucho
 - sacculus – macula sacculi
 - utricleus – macula utriculi
 - ductus semicirculares – cristae ampullares
 - ductus cochlearis – organon Corti

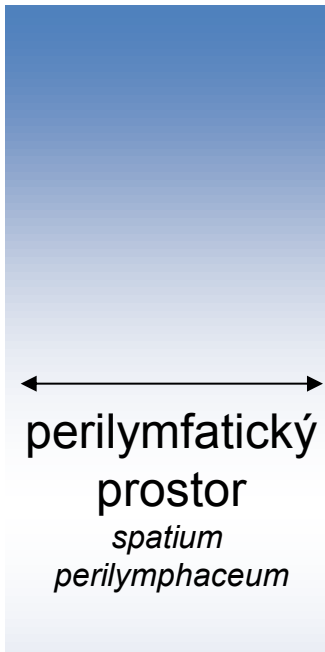


Vnitřní ucho

(v pyramidě ossis petrosus ossis temporalis)

Kostěný labyrint

- 1) vestibulum
- 2) canales semicirculares
- 3) cochlea



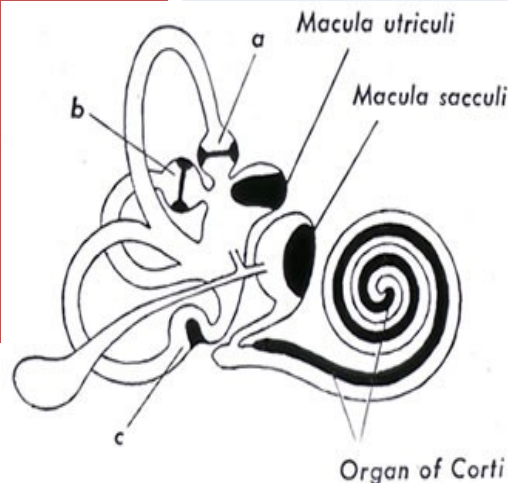
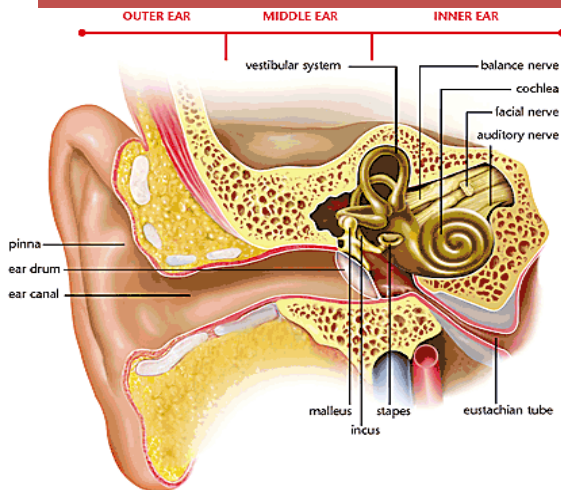
Blanitý labyrint

pars statica (1, 2)

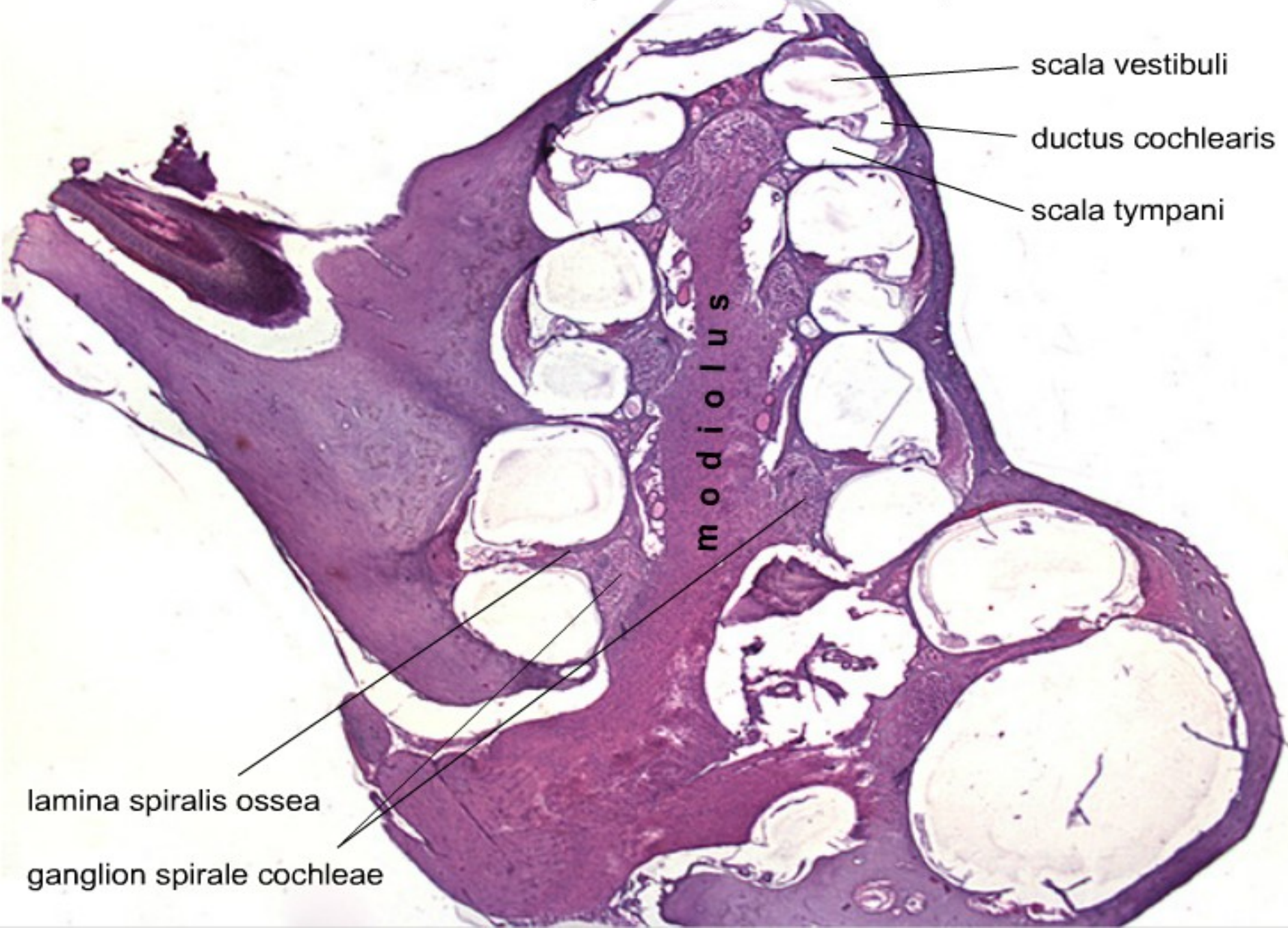
pars akustica (3)

- 1) sacculus
utriculus
saccus endolymphaticus
- 2) ductus semicirculares
- 3) ductus cochlearis

endolymfa



Cochlea – přehled, (HE), objektiv 2,5×



scala vestibuli

ductus cochlearis

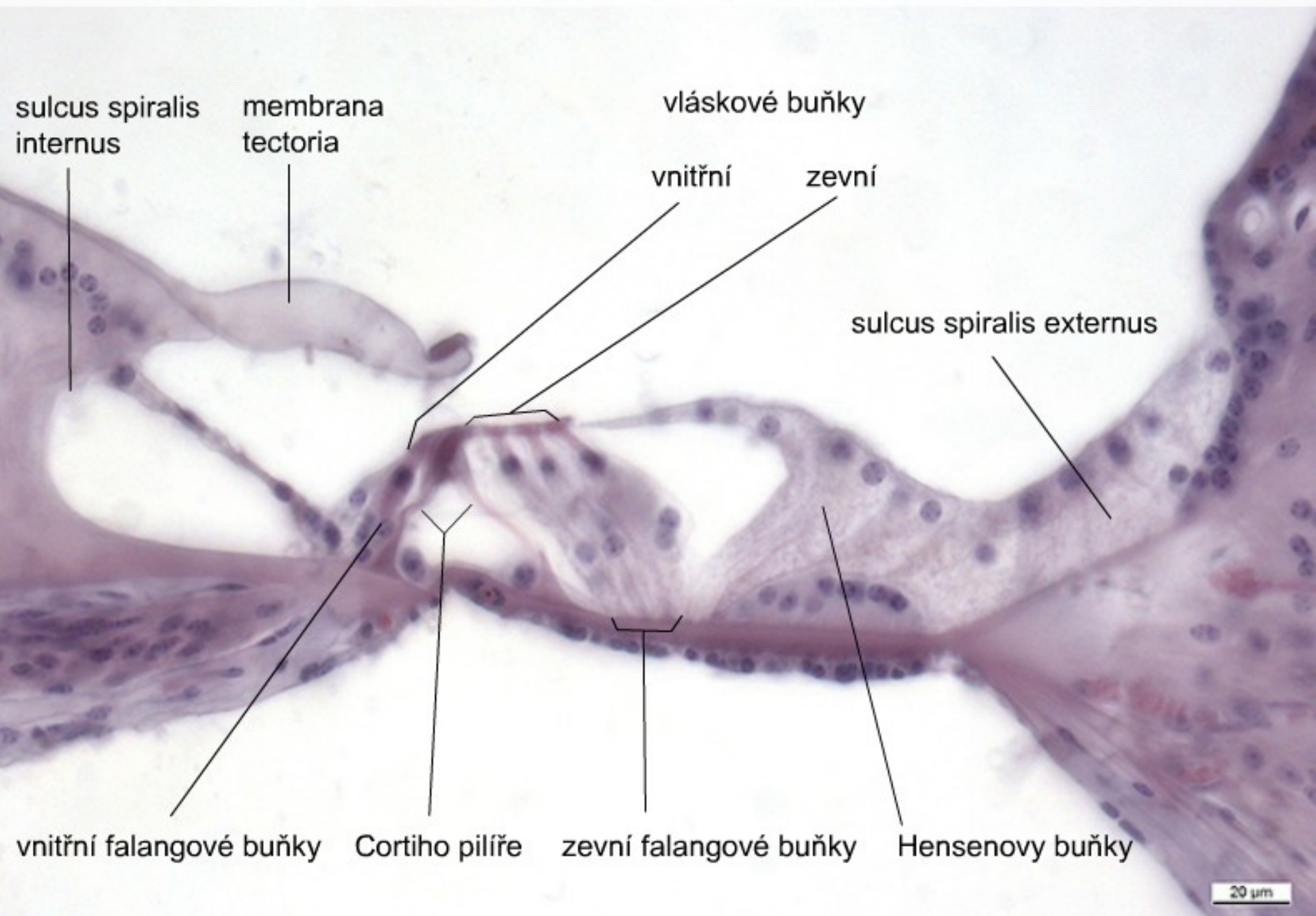
scala tympani

m o d i o l u s

lamina spiralis ossea

ganglion spirale cochleae

Cochlea – Cortiho orgán, (HE), objektiv 40×



elastická chrupavka

kůžn e x
k o ž n í a d n e x a



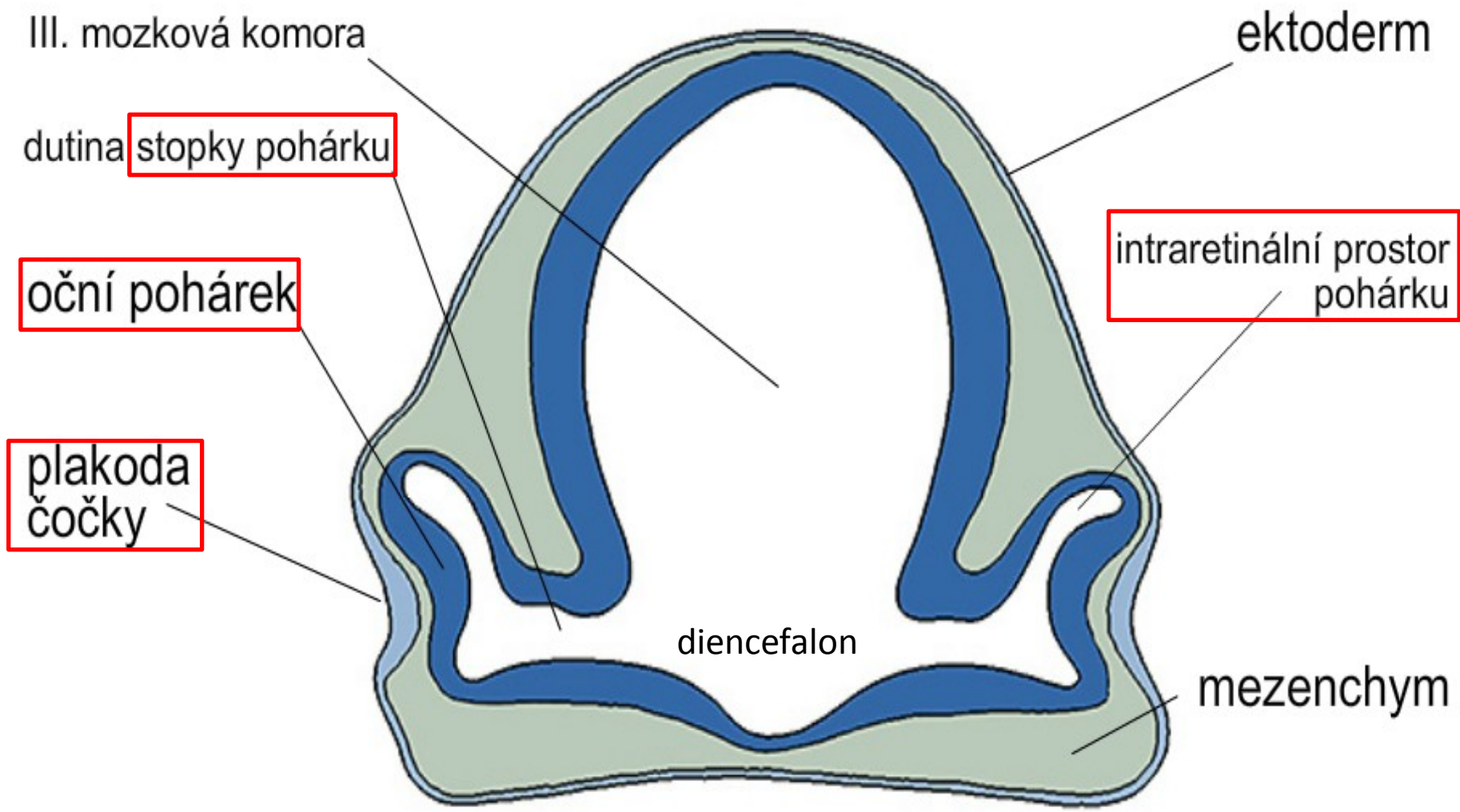


SMYSLOVÉ ORGÁNY

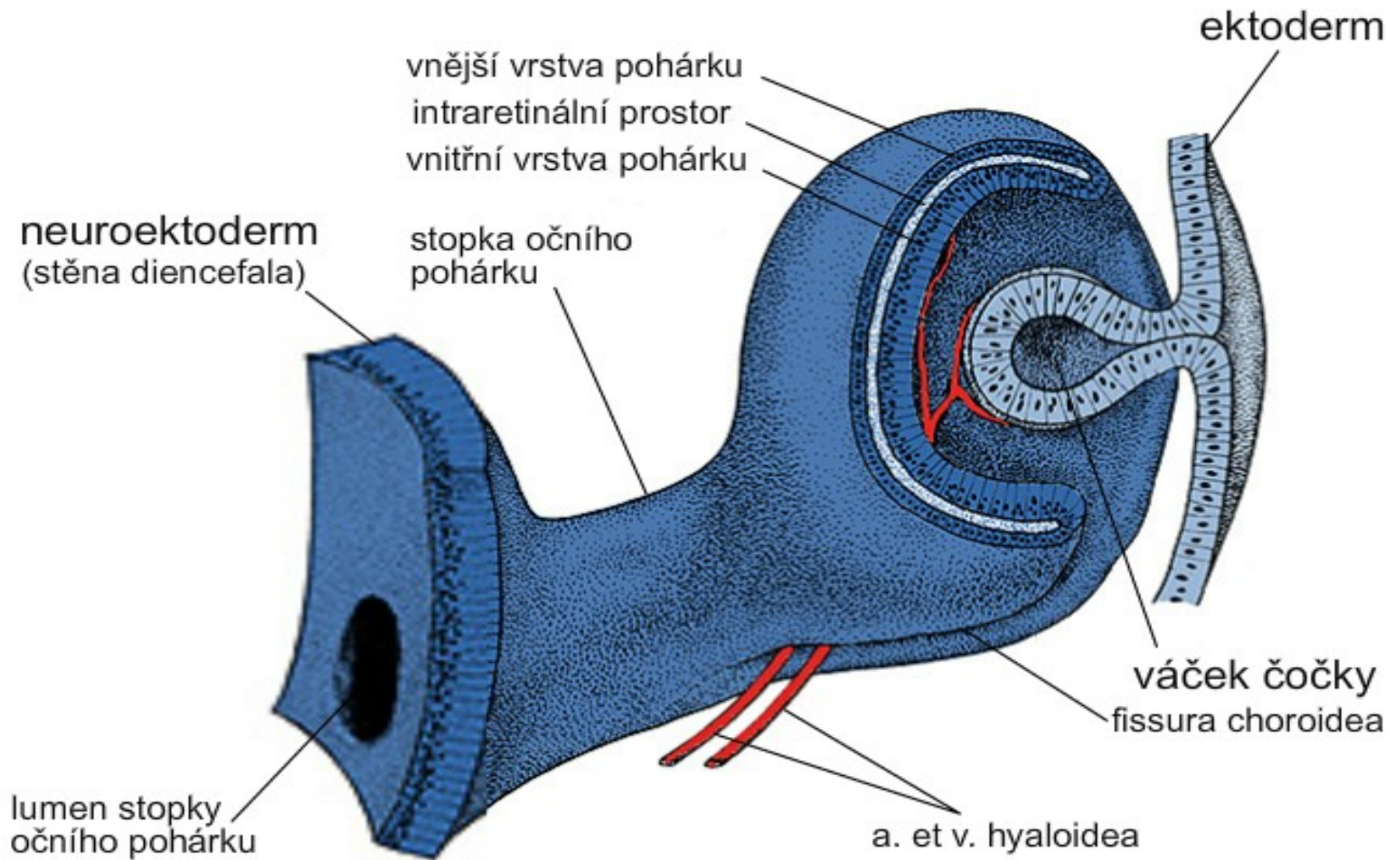


Preparáty:

- 88. Přední segment oční
- 89. Zadní segment oční
- 90. Fasciculus opticus
- 91. Palpebra
- 92. Gl. lacrimalis
- 93. Ductus cochlearis
- 94. Auricula



Vývoj očního pohárku a čočky



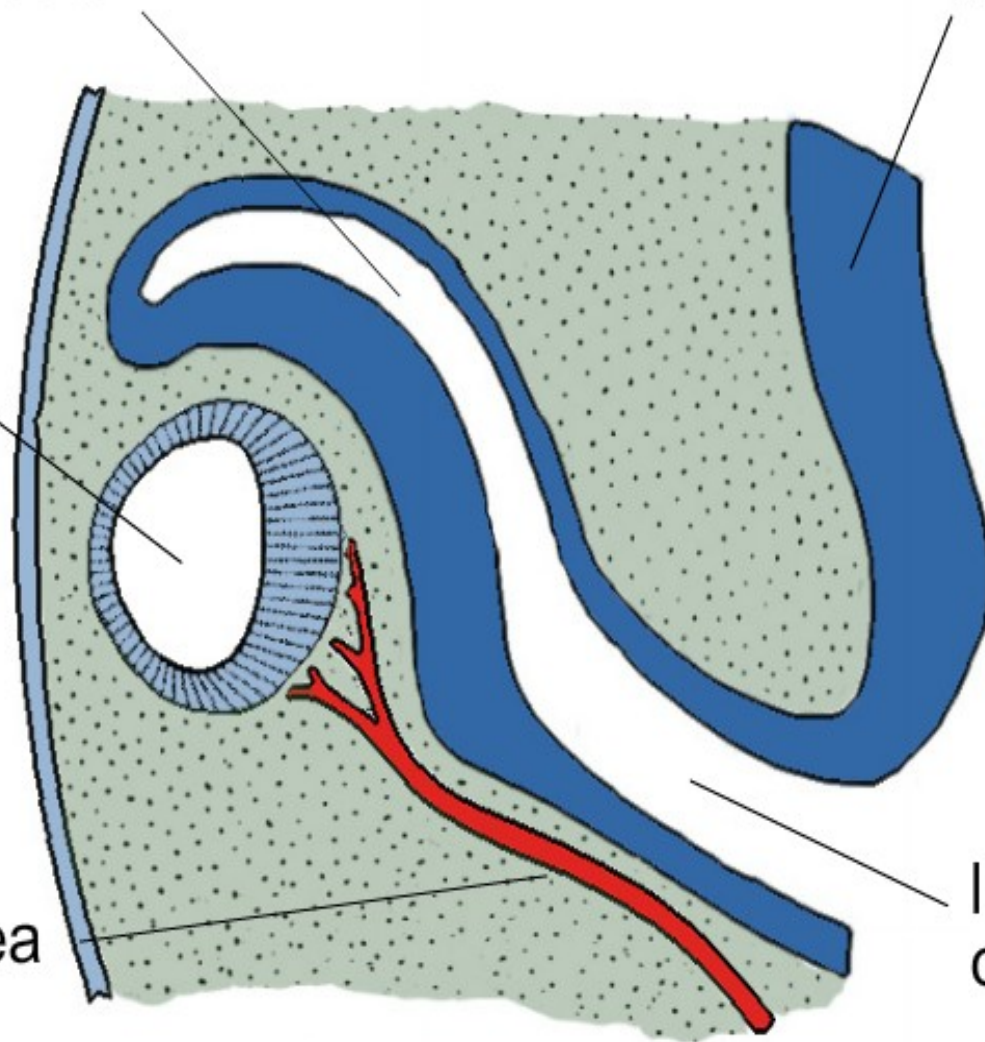
intraretinální prostor

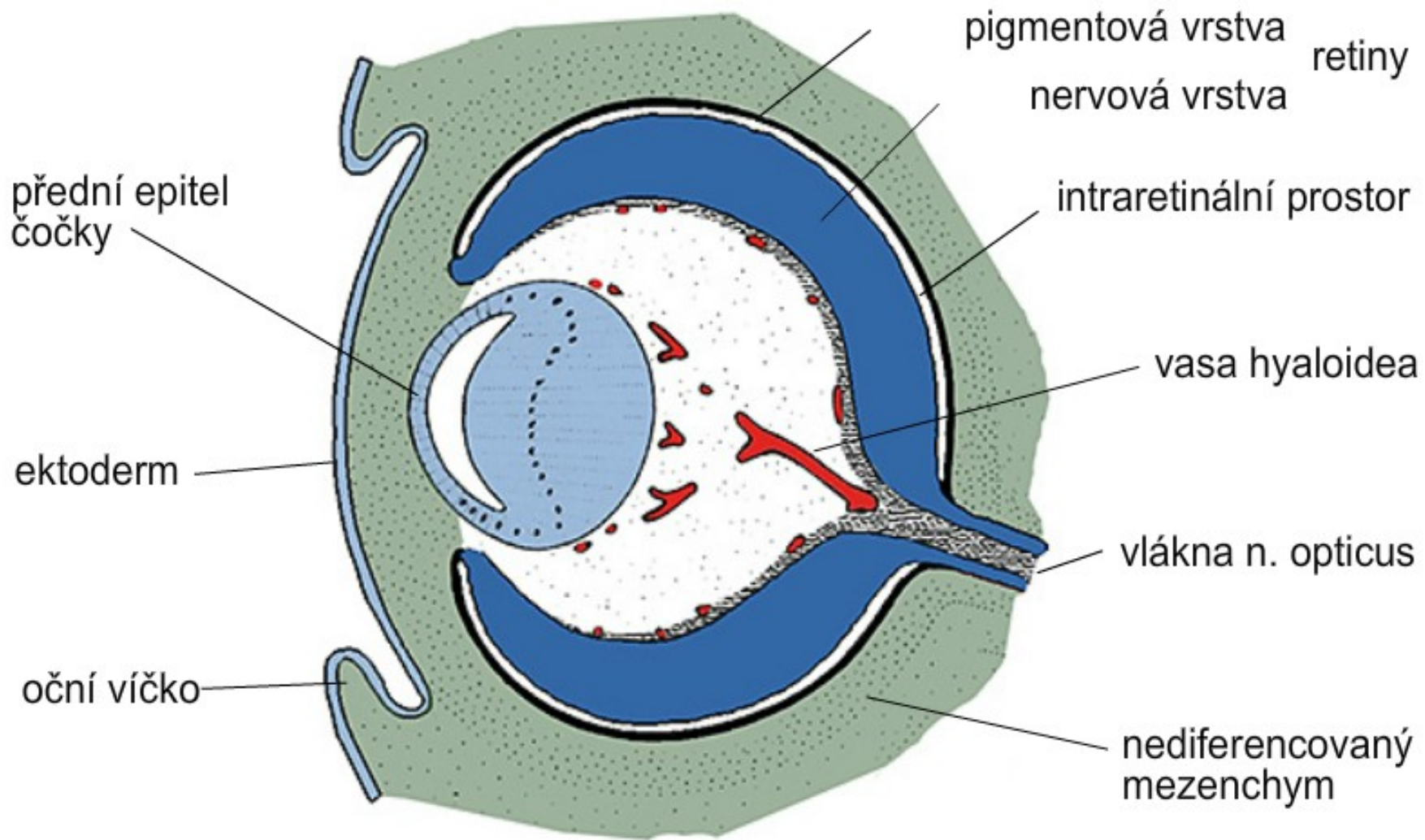
stěna diencefala

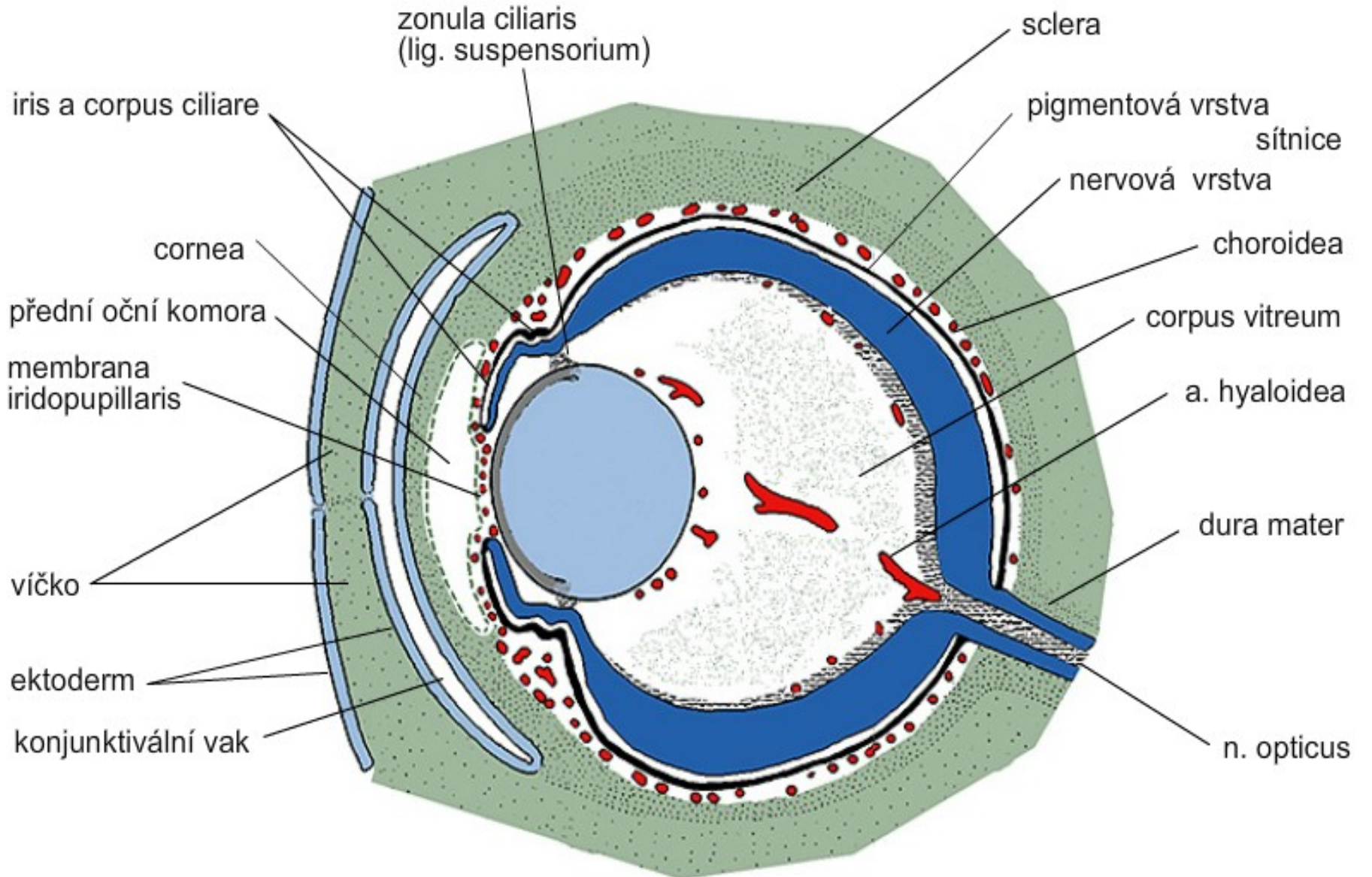
váček čočky

arteria hyaloidea

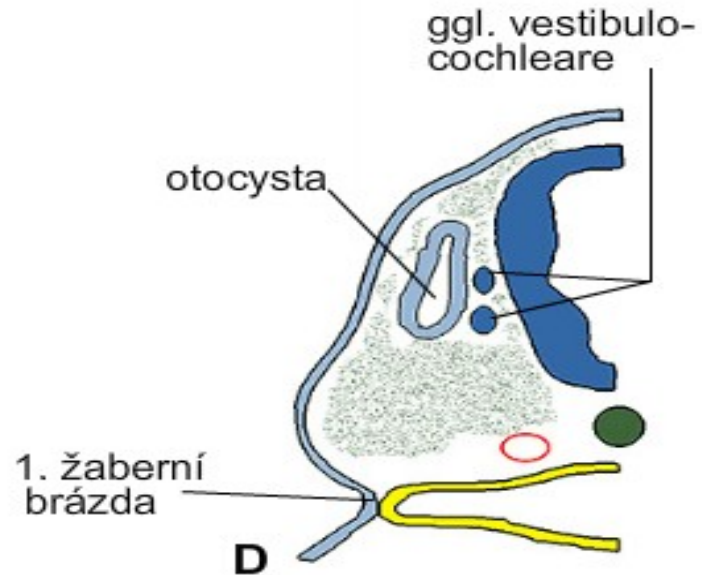
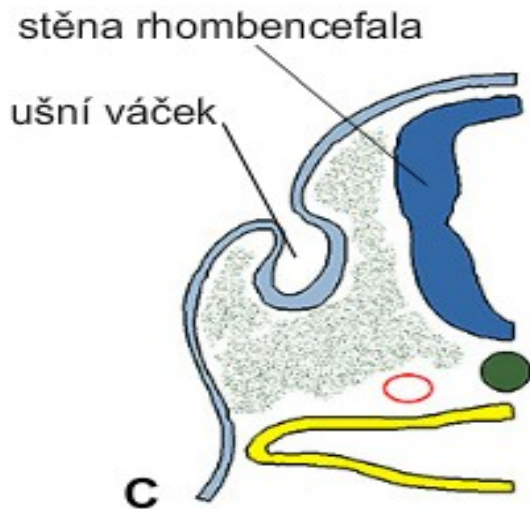
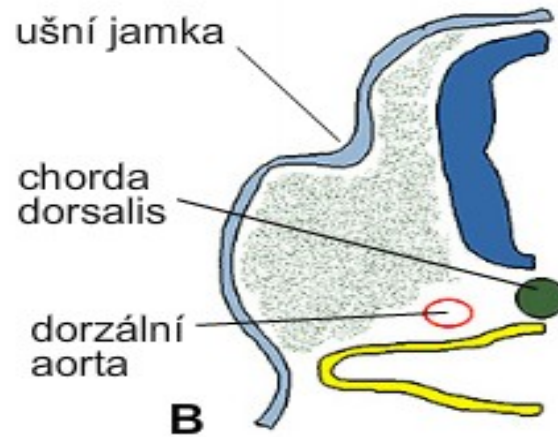
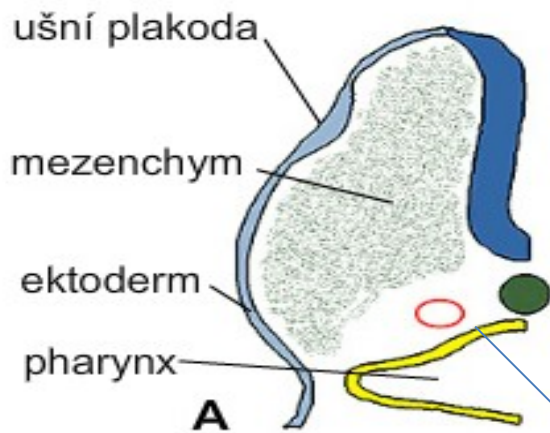
lumen stopky
očního pohárku



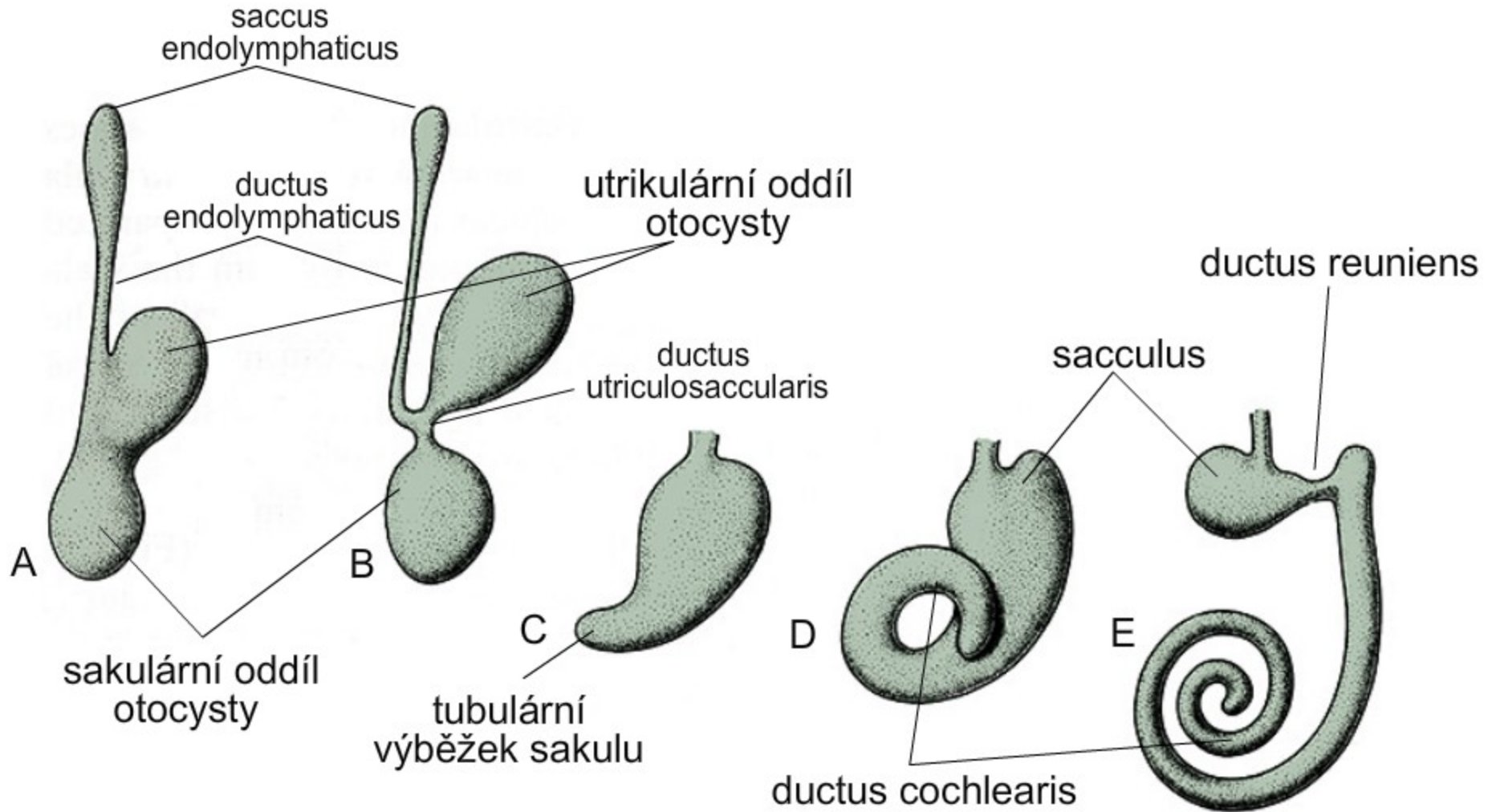


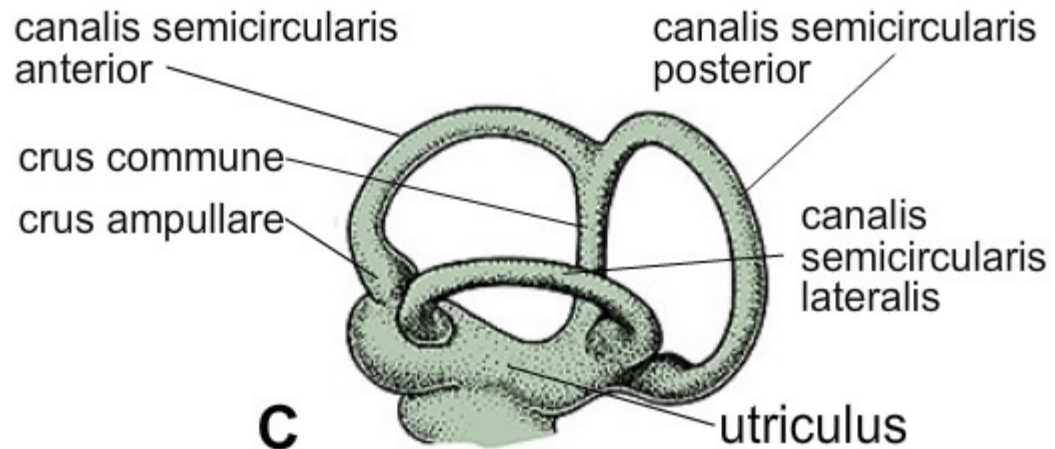
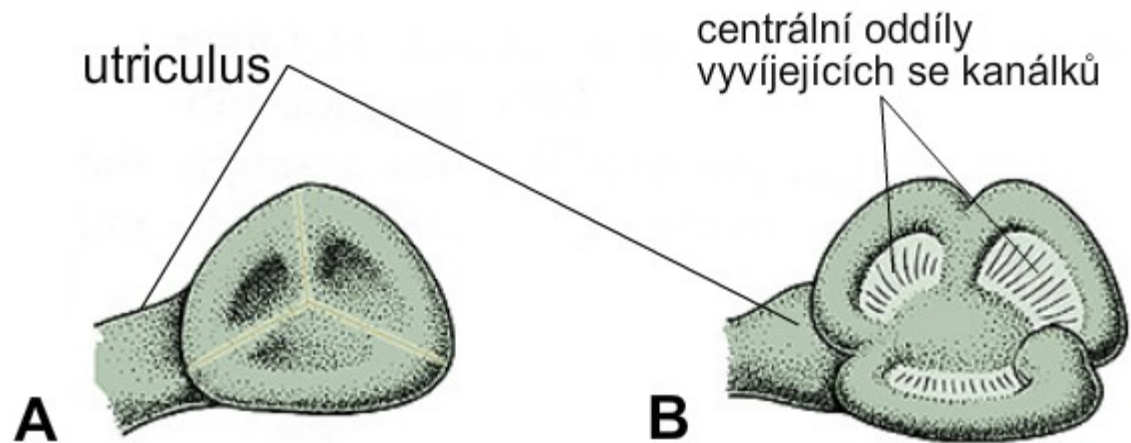


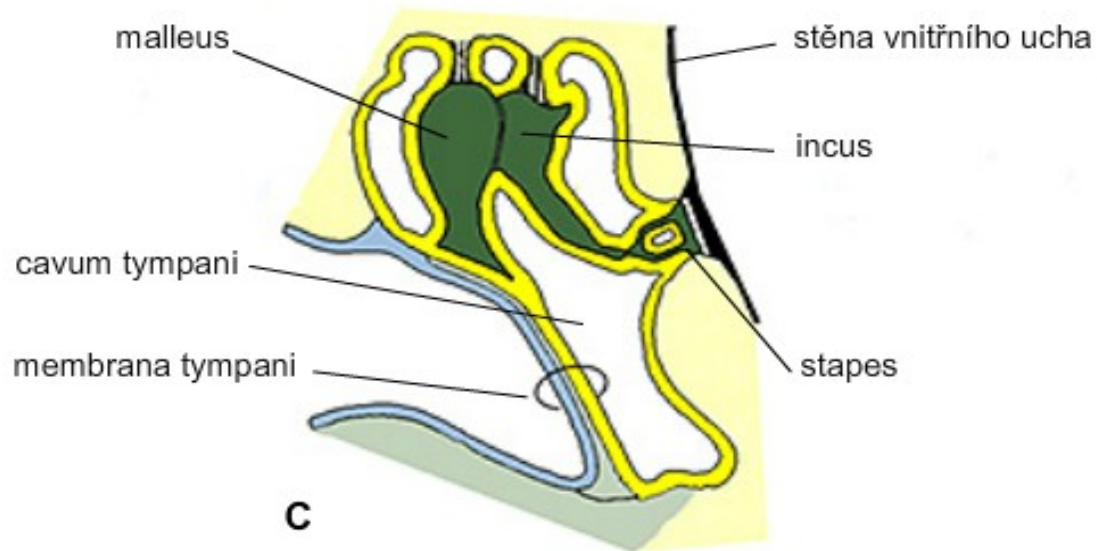
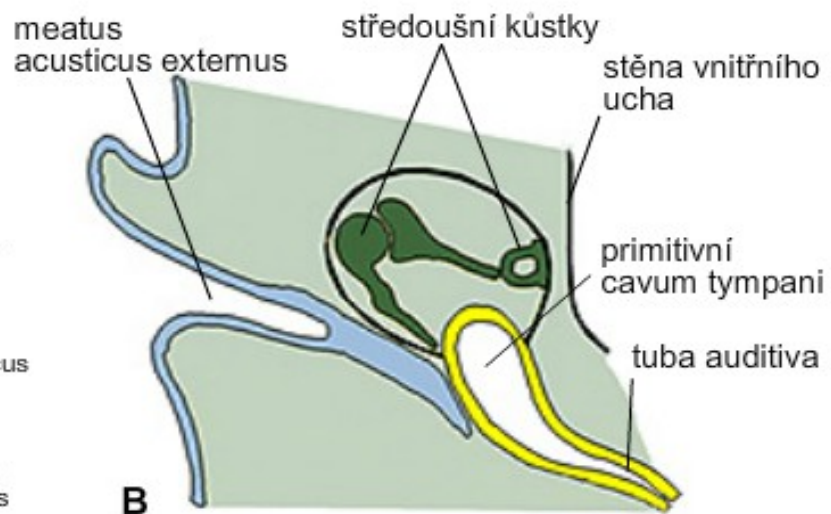
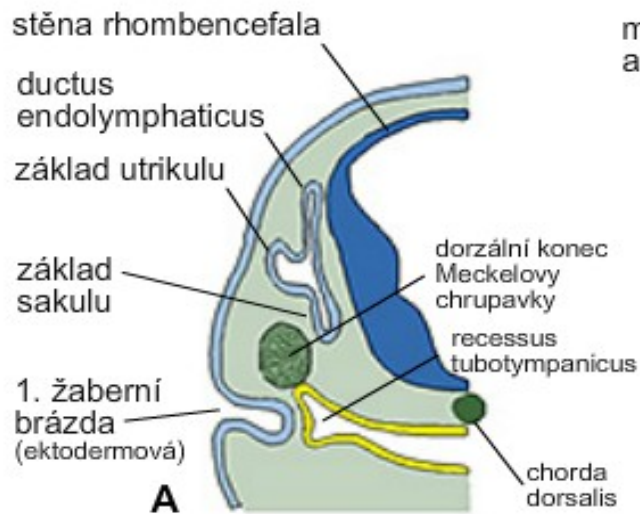
Vývoj zevního, středního a vnitřního ucha



Vývoj blanitého labyrintu







Vývoj ušního boltce

