

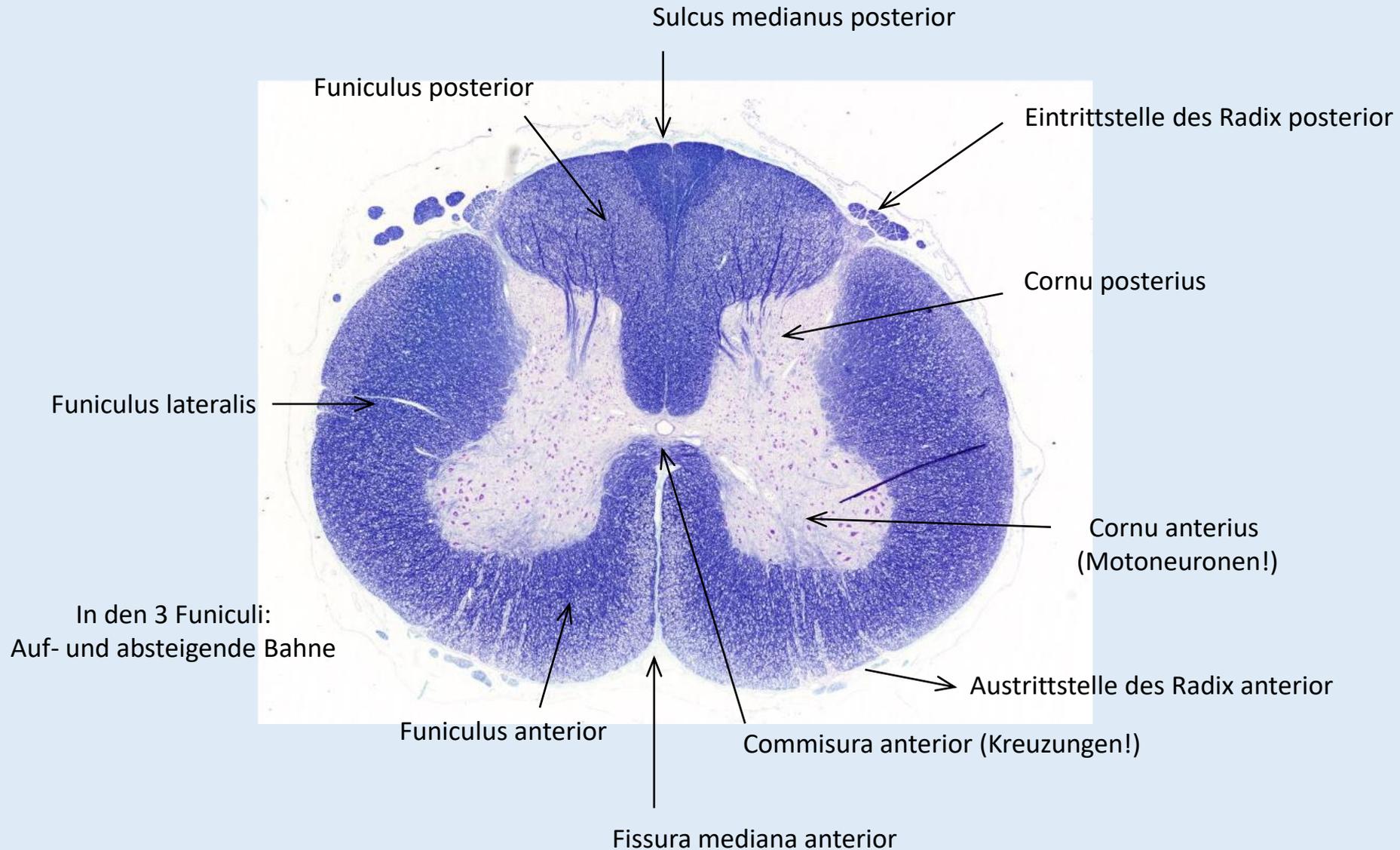
Histologie des Nervensystems. Sinnesorgane.

Fakultät für Pharmazie

Histologie-Praktikum VI.

**Anatomisches, Histologisches und Embryologisches Institut
2019.**

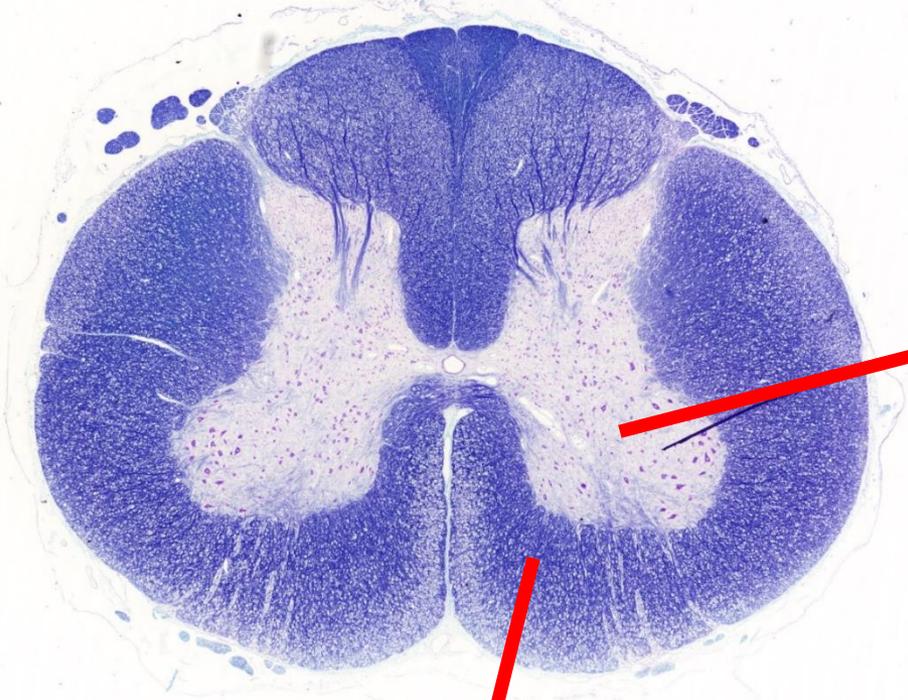
Querschnitt des Rückenmarkss



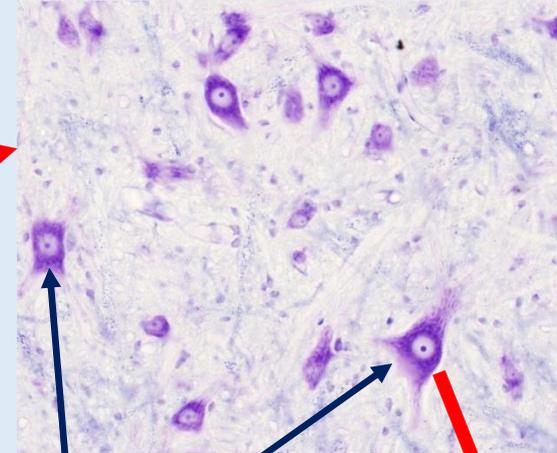
101. Rückenmark (Luxol-fastblue + Kresylviolett)

graue Substanz

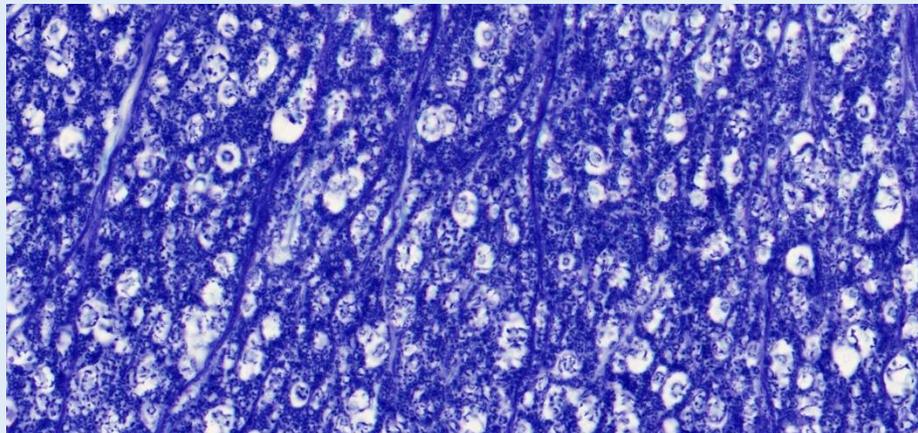
Kresylviolett



weisse Substanz



multipolare Neuronen
(Alfa-Motoneuron)



Myelinscheide

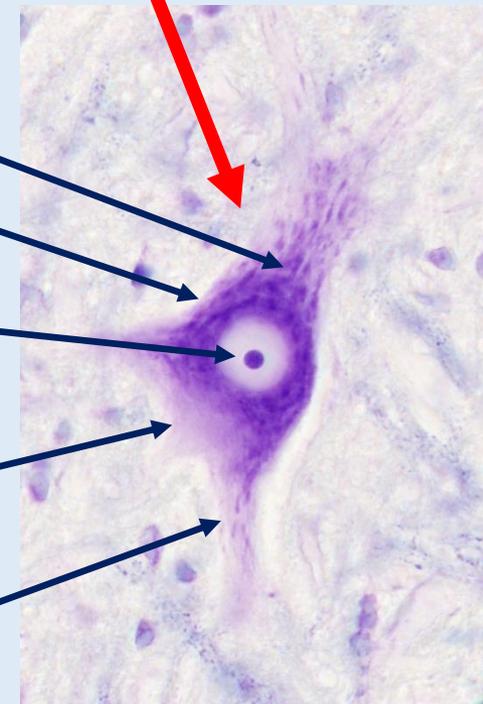
Nissl-Schollen

Perykarion

Zellkern
(Nukleolus)

Axon
(Axonhügel)

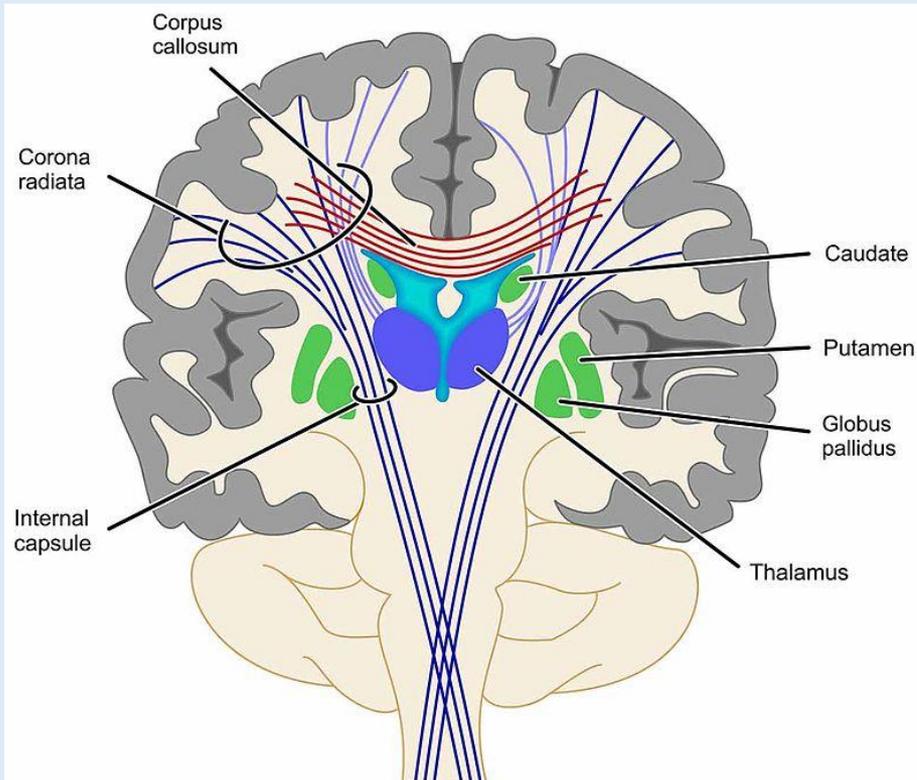
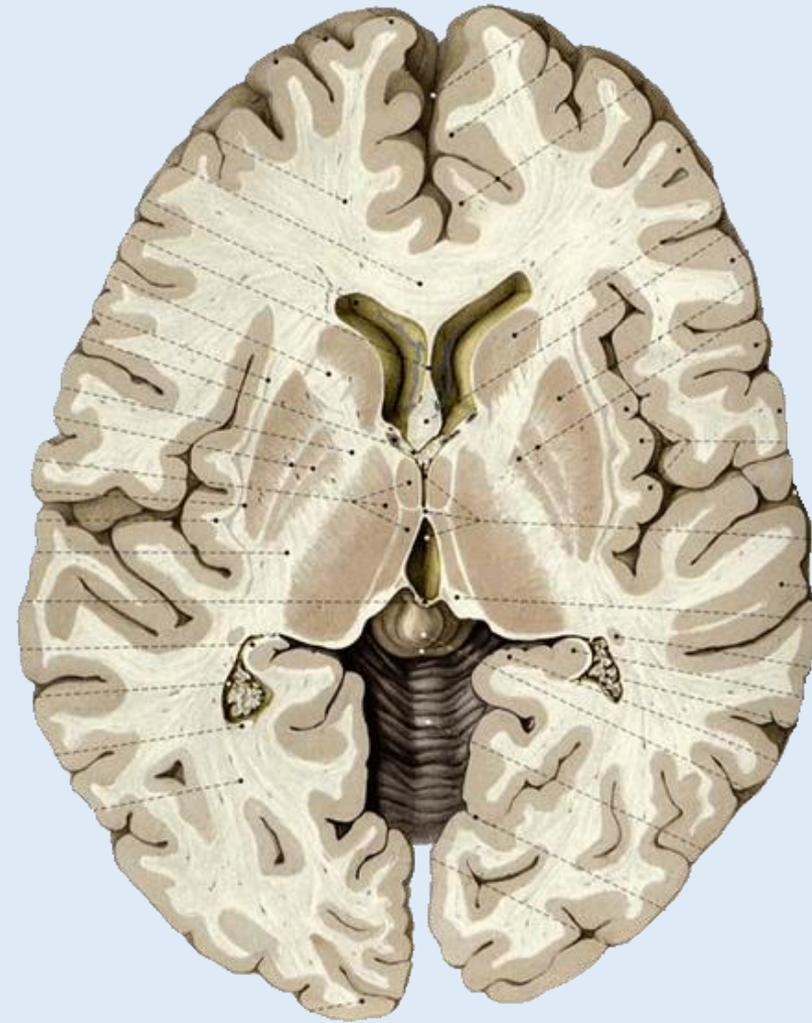
Dendrit



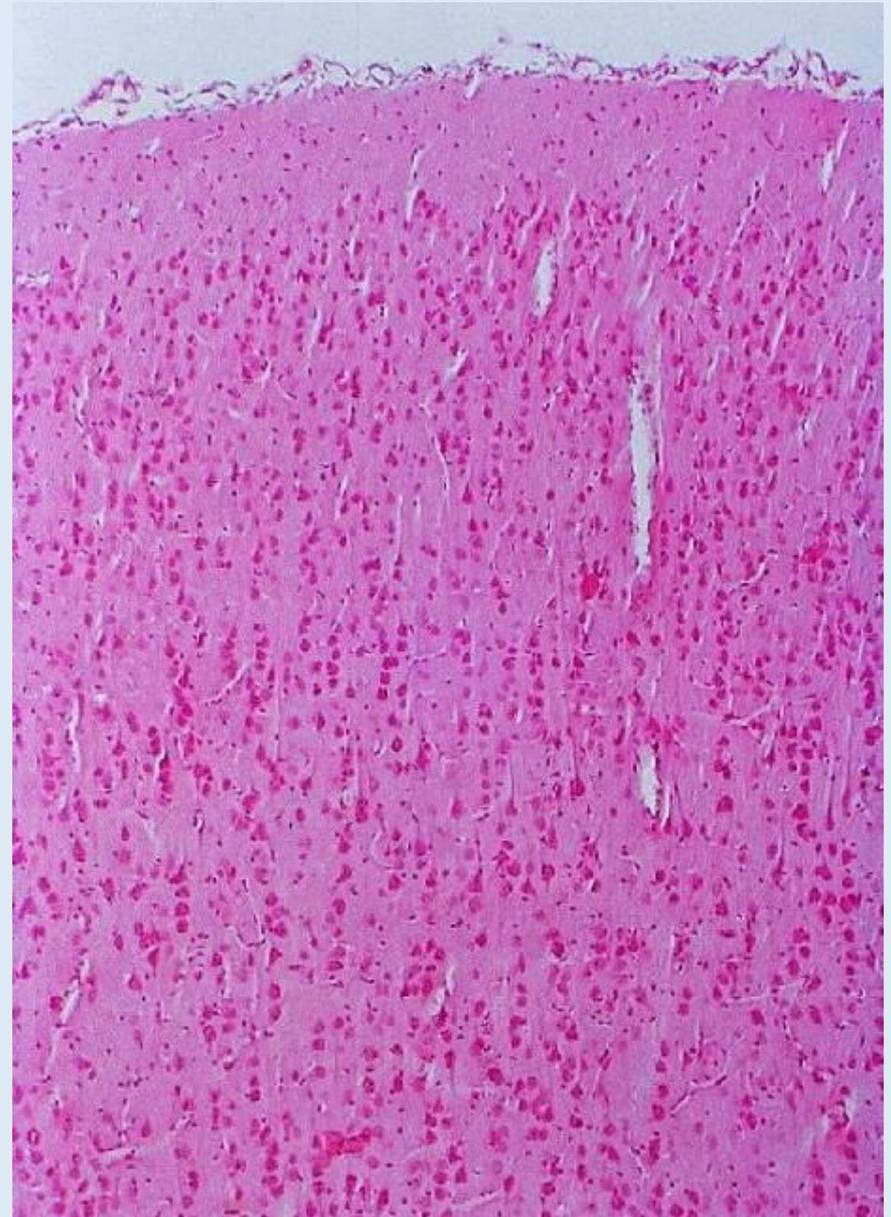
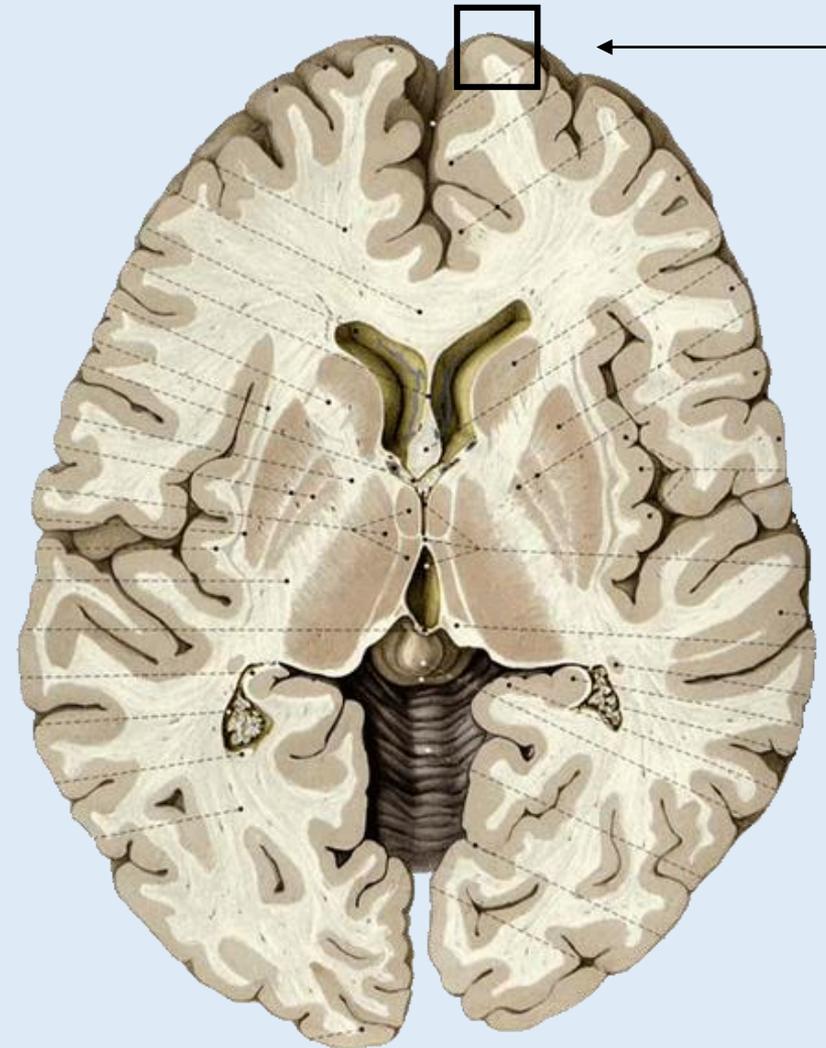
Großhirn- Cerebrum

Graue Substanz (Cortex cerebri und Basalganglien):
hauptsächlich Neuronen sowie Gliazellen

Weisse Substanz:
Axonen sowie Gliazellen



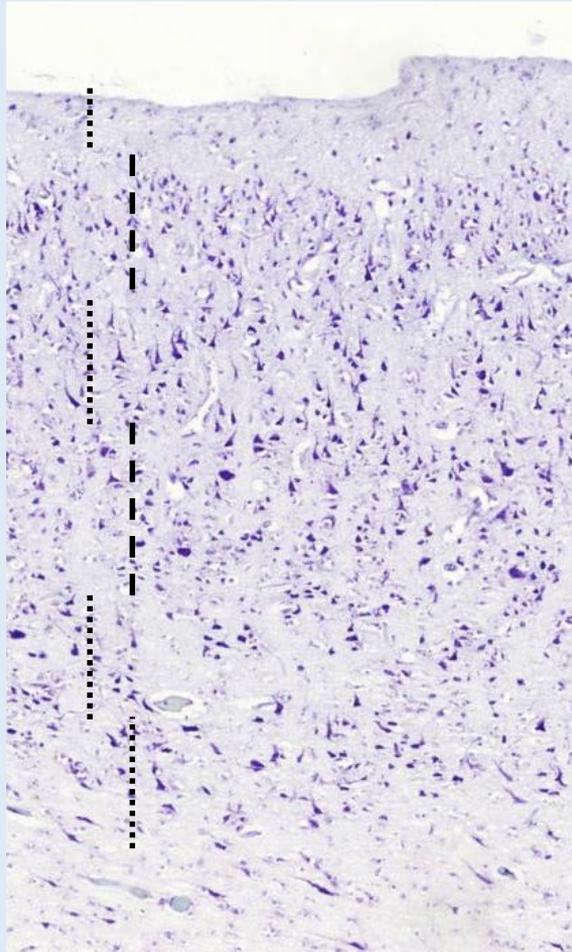
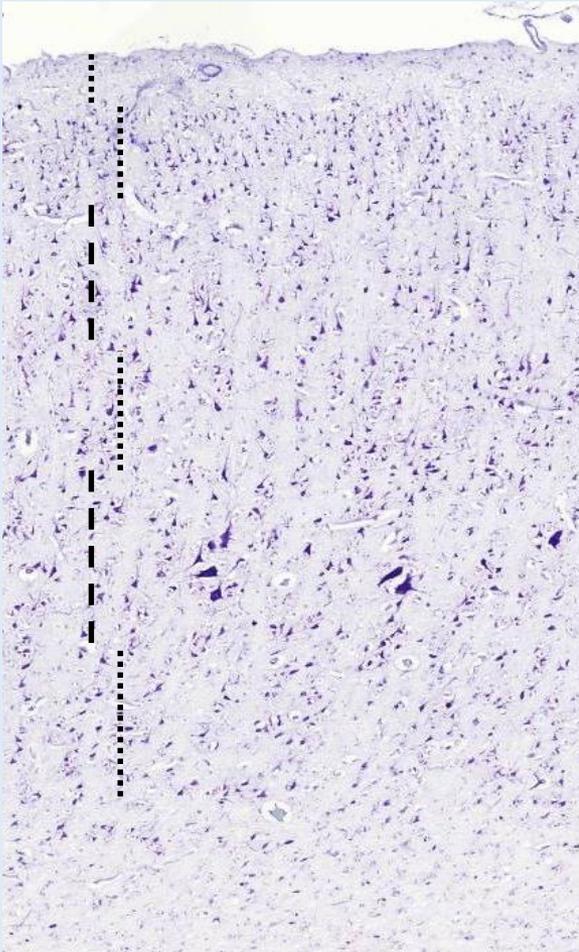
Schichten der Großhirnrinde



Großhirnrinde – Kresylviolett (22.)

Gyrus praecentralis: agranulärer Kortex (3. und 5. Schichten sind breit)

Gyrus postcentralis: granulärer Kortex (2. und 4. Schichten sind breit)



Str. moleculare
Nervenfasern, Astrozyten, Sternzellen

Str. granulosum externum
Sternzellen, kleine Pyramidenzellen

Str. pyramidale externum
mittelgroße Pyramidenzellen

Str. granulosum internum
Sternzellen, kleine Pyramidenzellen

Str. pyramidale internum
große Pyramidenzellen (**Betz**)

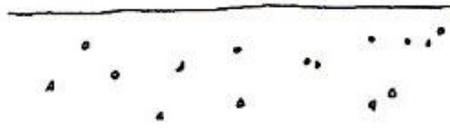
Str. multiforme
Nervenzellen (unterschiedliche
Größen und Forme)

Weißer Substanz
Oligodendroglia-Zellen

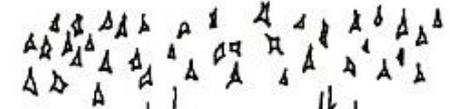
Schichten der Großhirnrinde

Pia mater an der Oberfläche

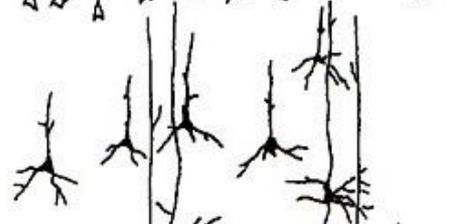
1. str. moleculare



2. str. granulosum externum



3. str. pyramidale externum



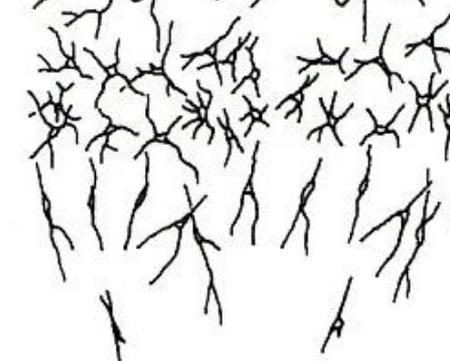
4. str. granulosum internum



5. str. pyramidale internum

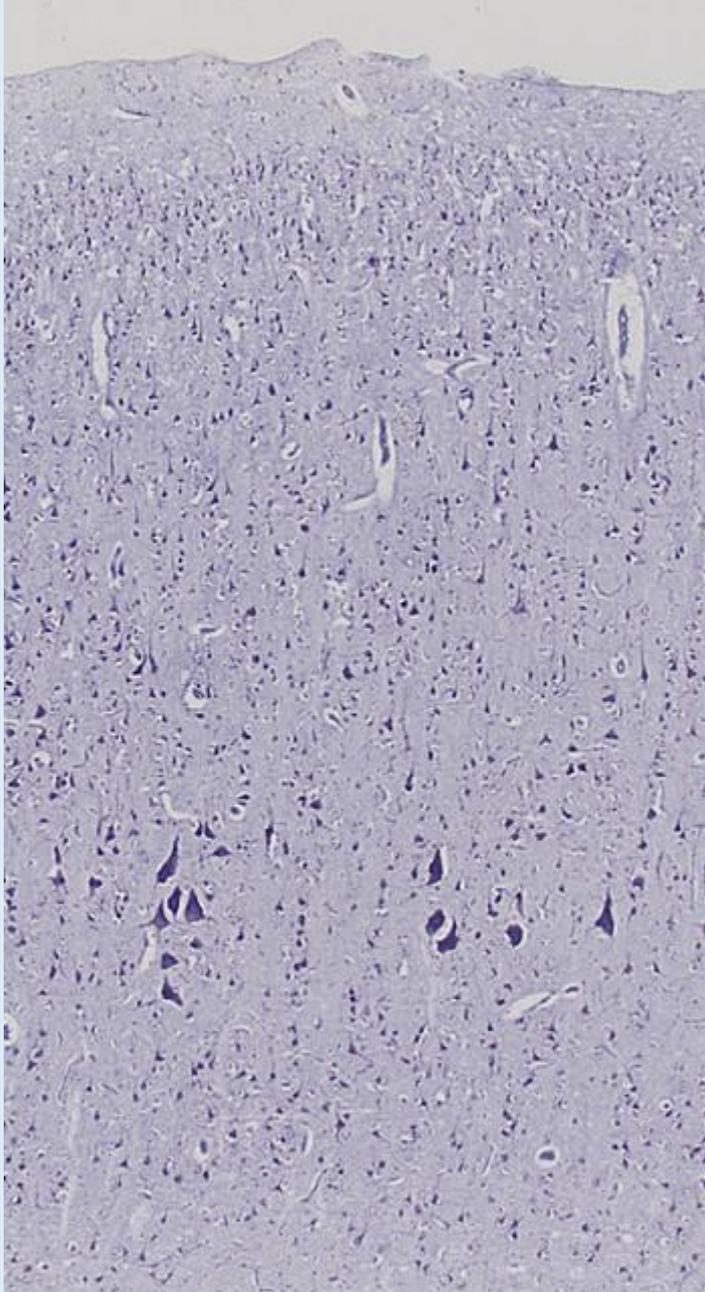


6. str. multiforme

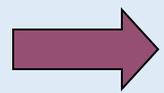
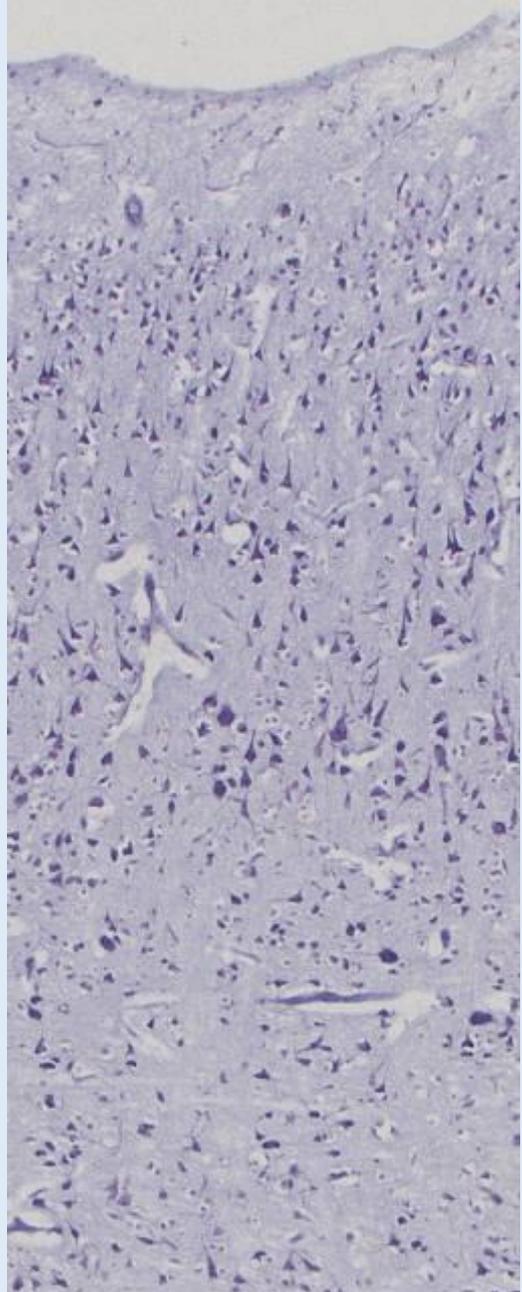


Medulla: afferente und efferente Fasern sowie Gliazellen

Motorische Rinde



Sensorische Rinde



In der motorischen Rinde sehr große Pyramidenzellen in der V. Schicht.

→ **Betz-Riesenzellen**

Pyramidenzellen

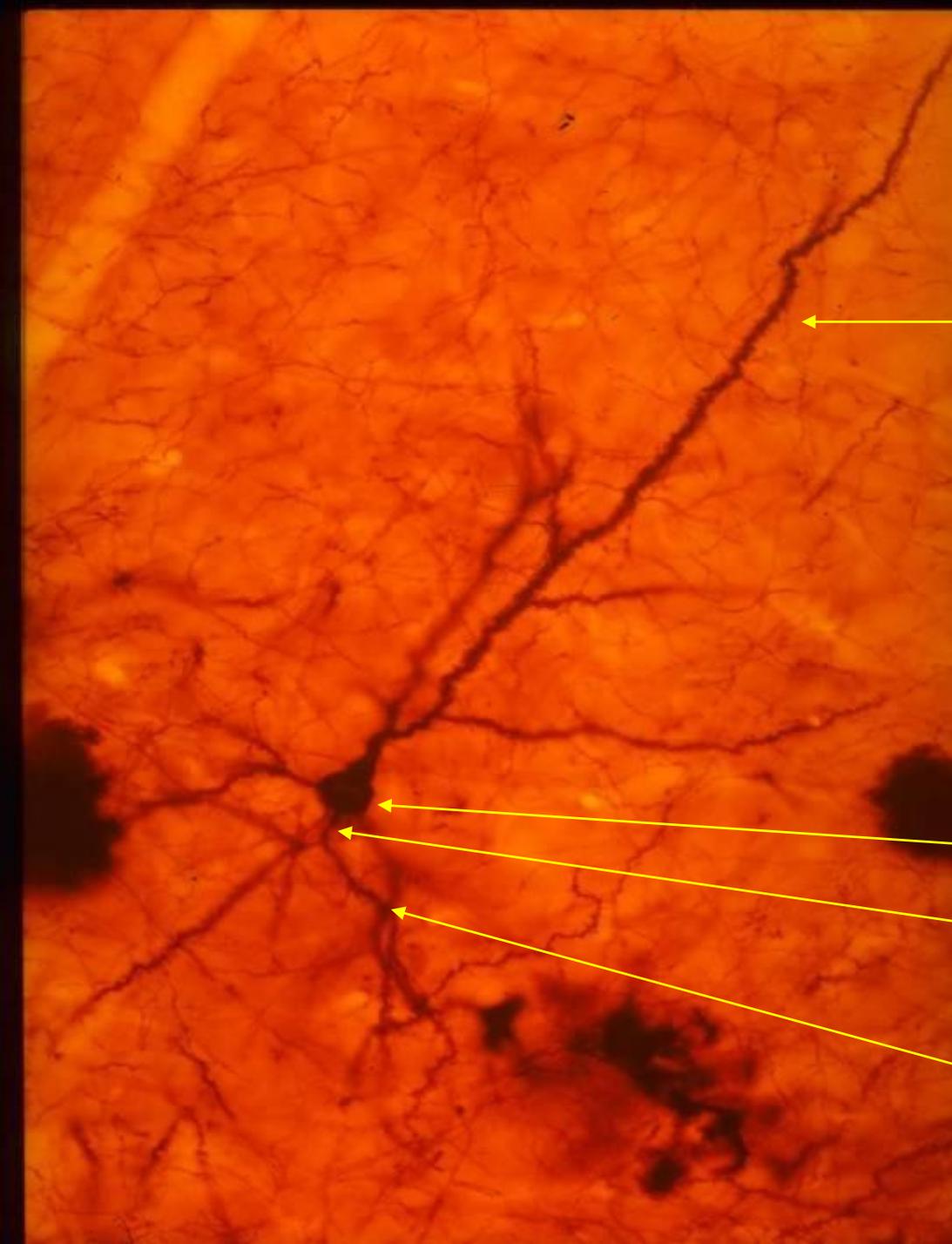
Spitzendendrit

zeigt Richtung Oberfläche

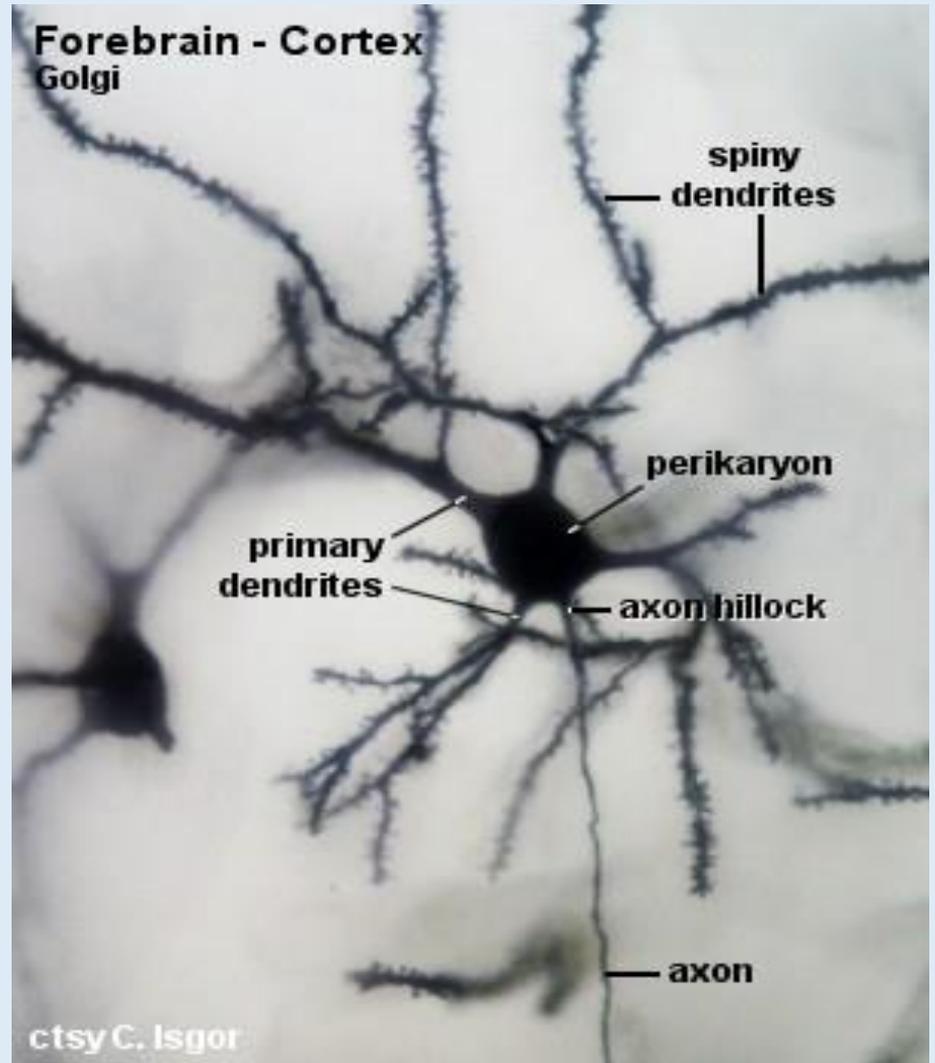
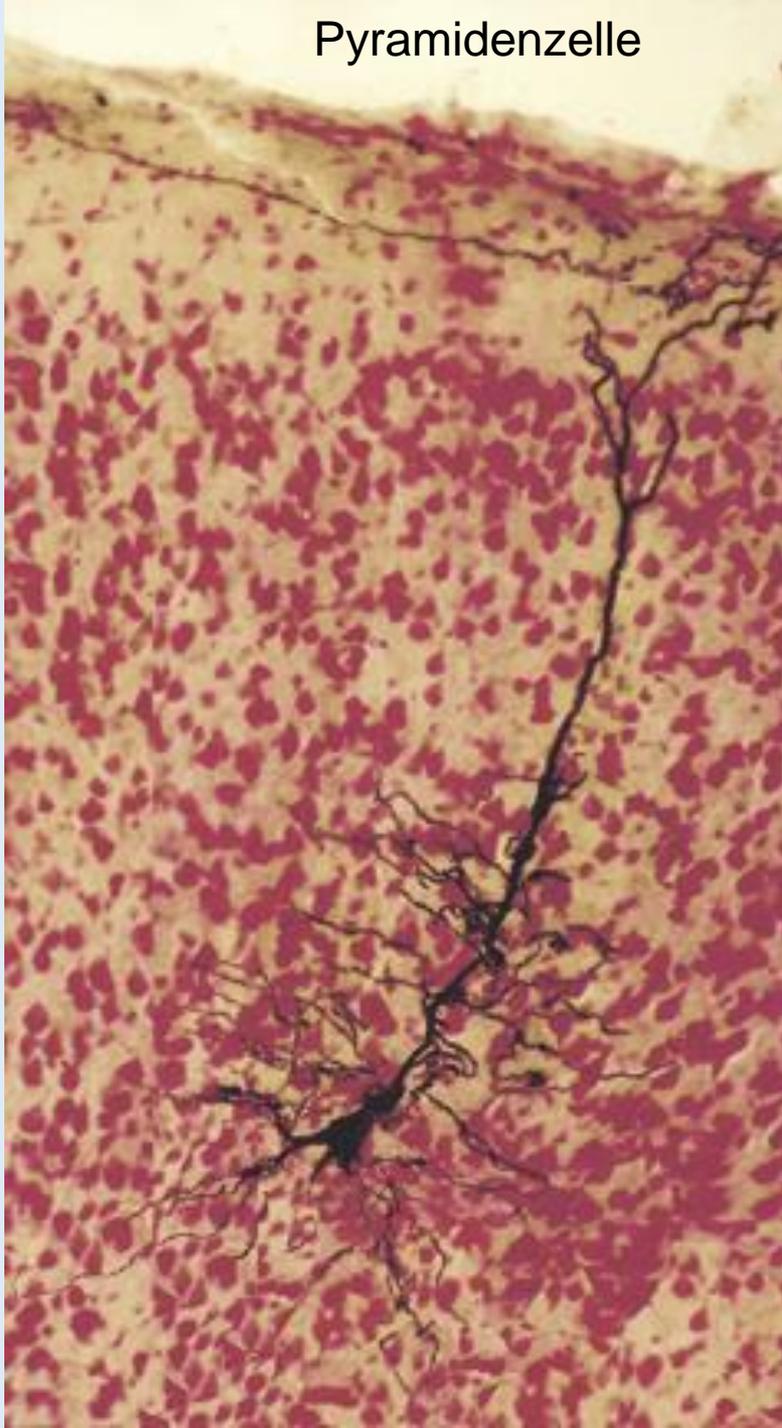
Perikaryon

Axon-Hügel

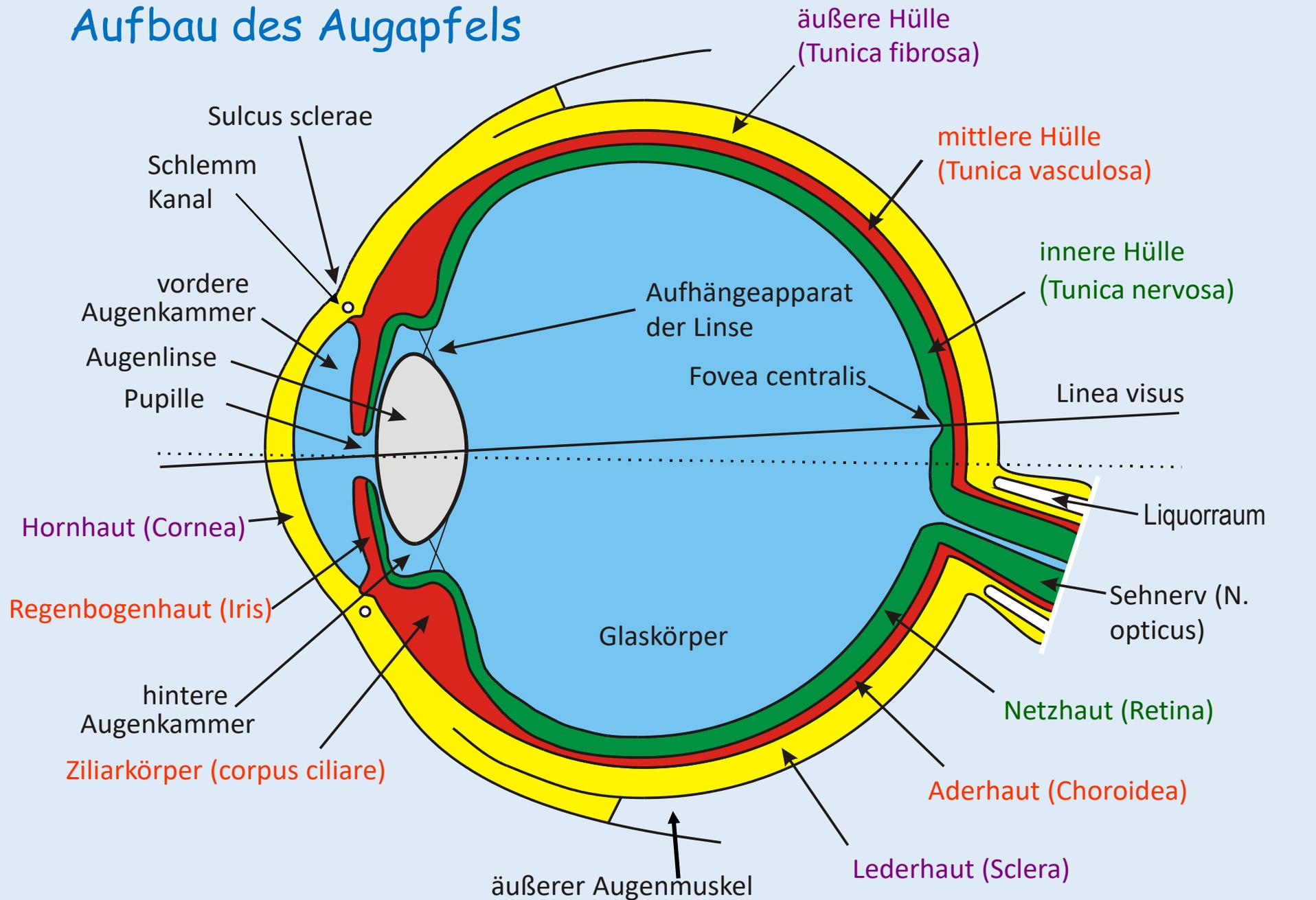
Basale Dendriten



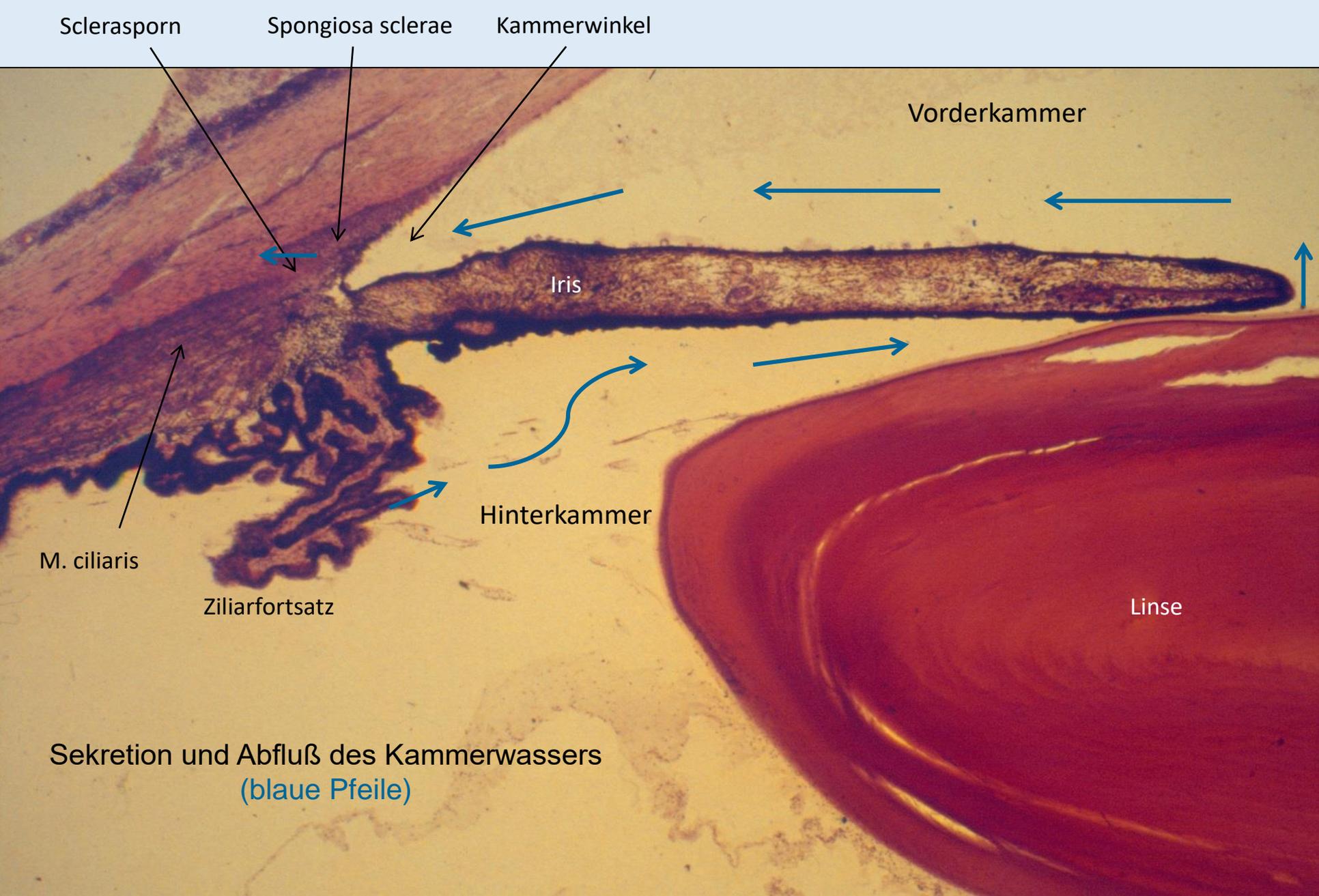
Pyramidenzelle



Aufbau des Augapfels



Aus der Vorlesung von Herrn Professor Pál Röhlich

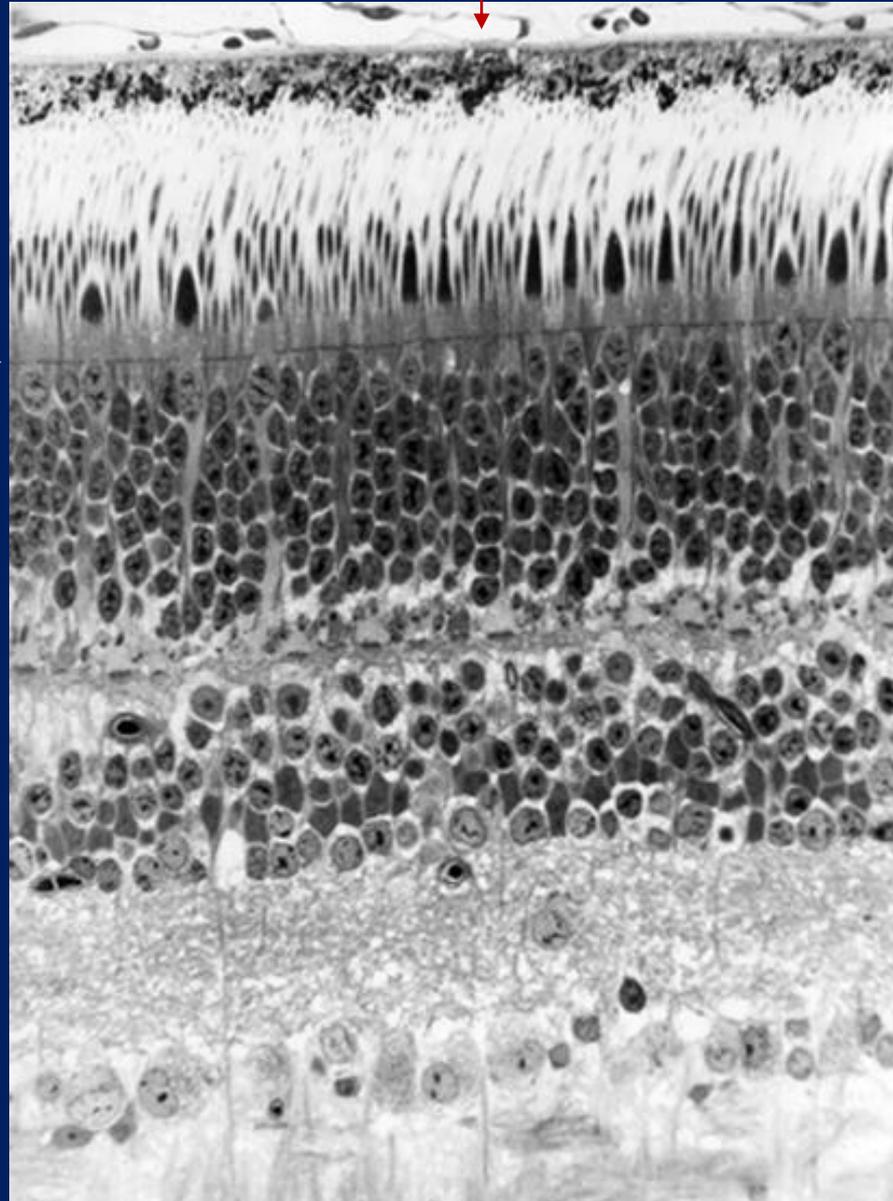


Schichten der Retina

Aus der Vorlesung von Herrn Professor Pál Röhlich

choriocapillaris

choroidea



1. Pigmentepithel
str. pigmentosum retinae

2. Stäbchen und
Zapfen bacilli et coni

3. Äußere Grenzmembran
m. limitans externa

4. Äußere Kernschicht
str. granulosum ext.

5. äußere synaptische
Schicht str. plexiforme ext.

6. Innere Kernschicht
str. granulosum int.

7. Innere synaptische
Schicht str. plexiforme int.

8. Ganglienzellen
str. ganglionare

9. Schicht der Optikus-
fasern str. neurofibrarum

Außensegmente der
Photorezeptorzellen

Innensegmente der
Photorezeptorzellen

Perikaryen der
Photorezeptoren

Perikaryen der bipolaren,
horizontalen, amakrinen
und Müller-Zellen

Perikaryen der
Ganglienzellen

10. Innere Grenzmembran (nicht sichtbar)

Glaskörper

Ora serrata



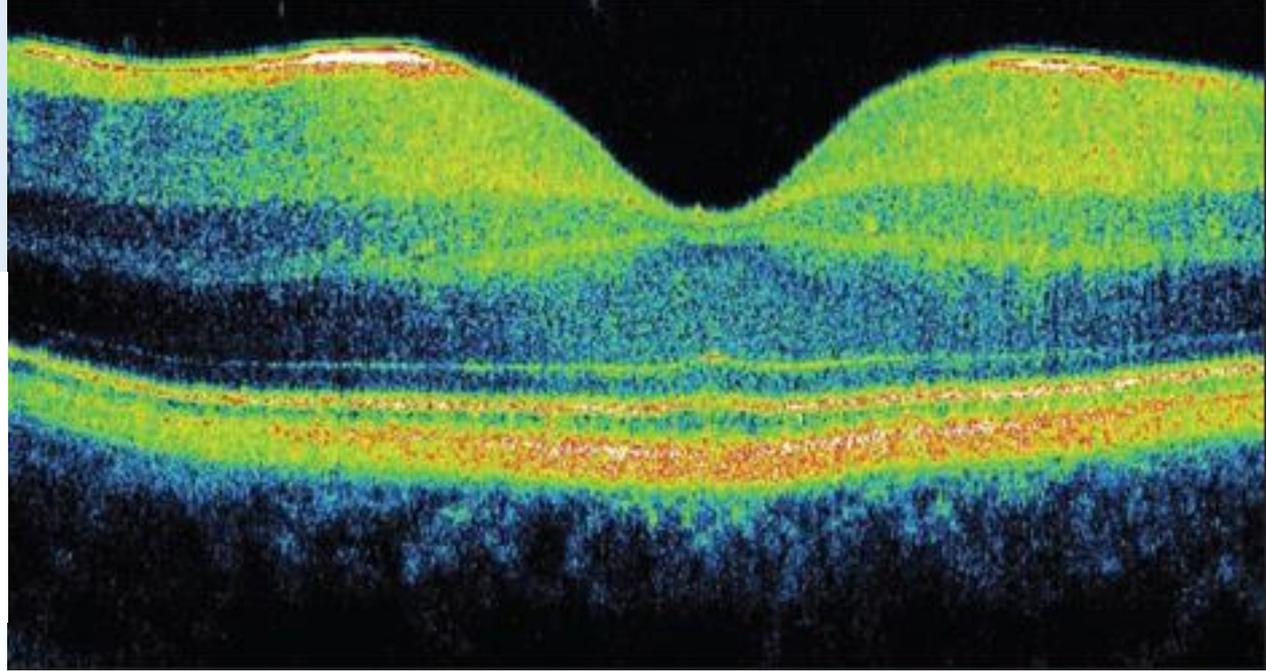
Ausnahme

- Discus opticus
(Papilla nervi optici,
Austrittsstelle des Nervus opticus)



Ausnahme

- Macula lutea
(Fovea centralis:
nur Zapfenzellen)



Blutversorgung

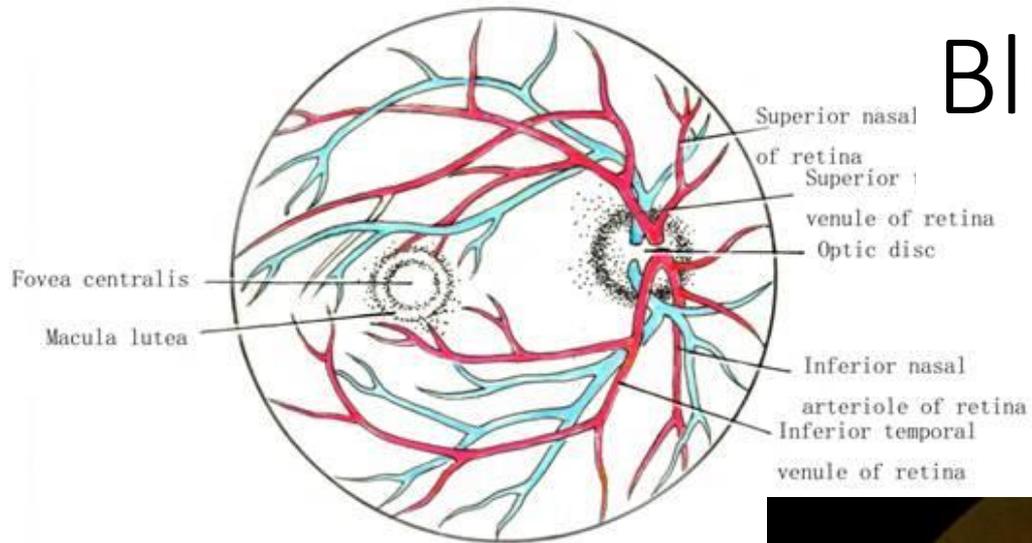
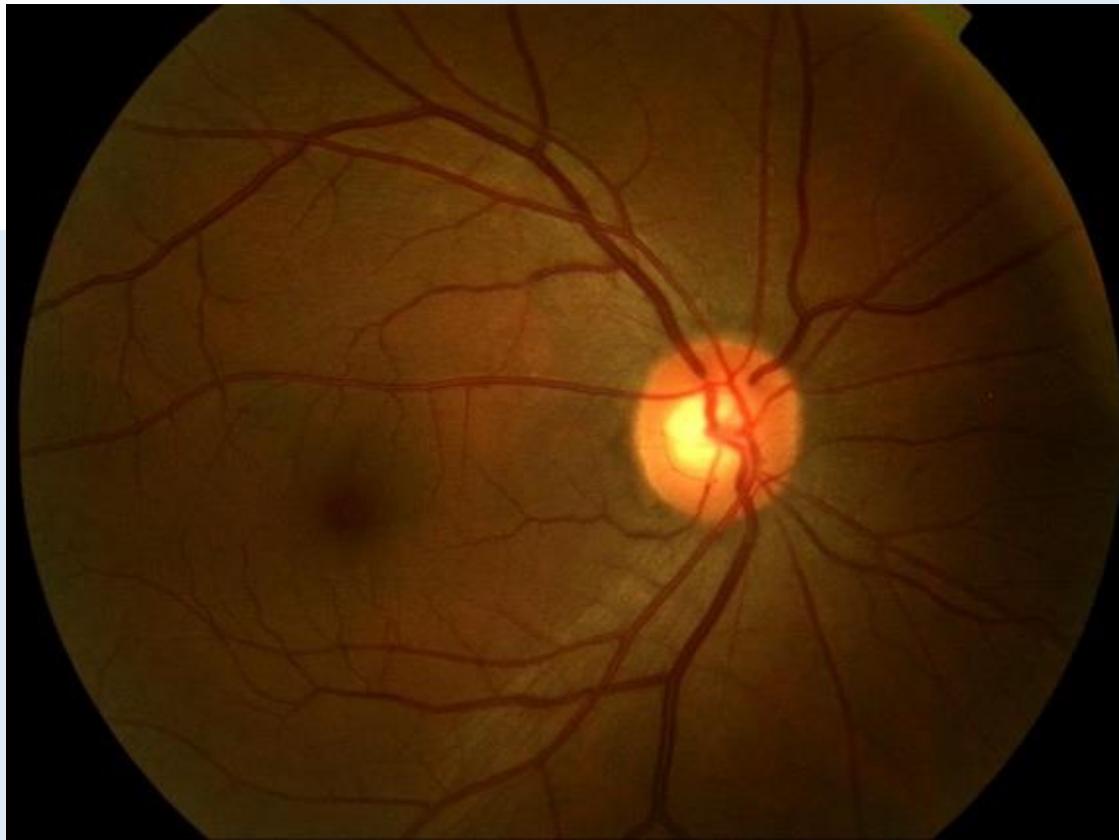
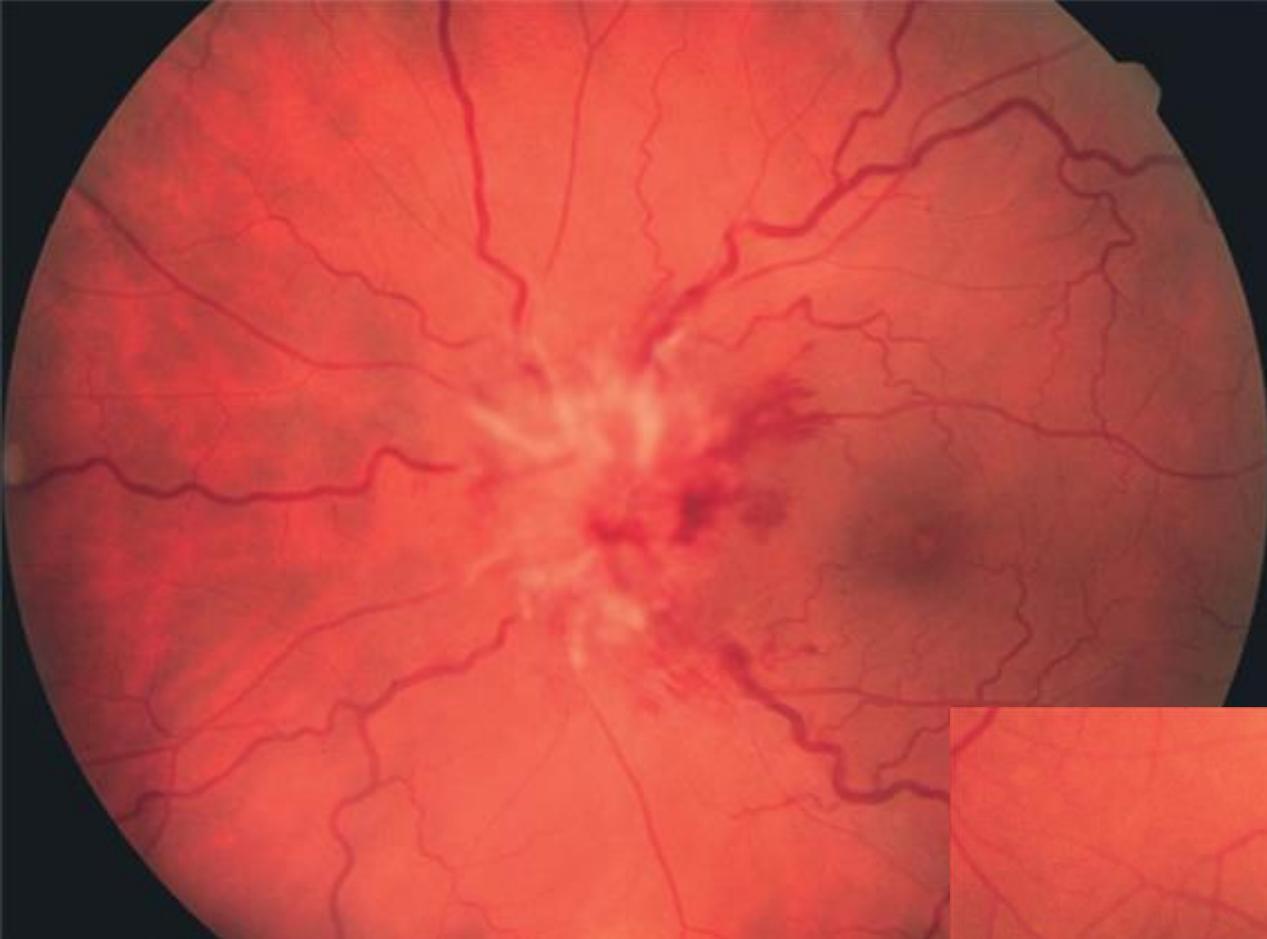


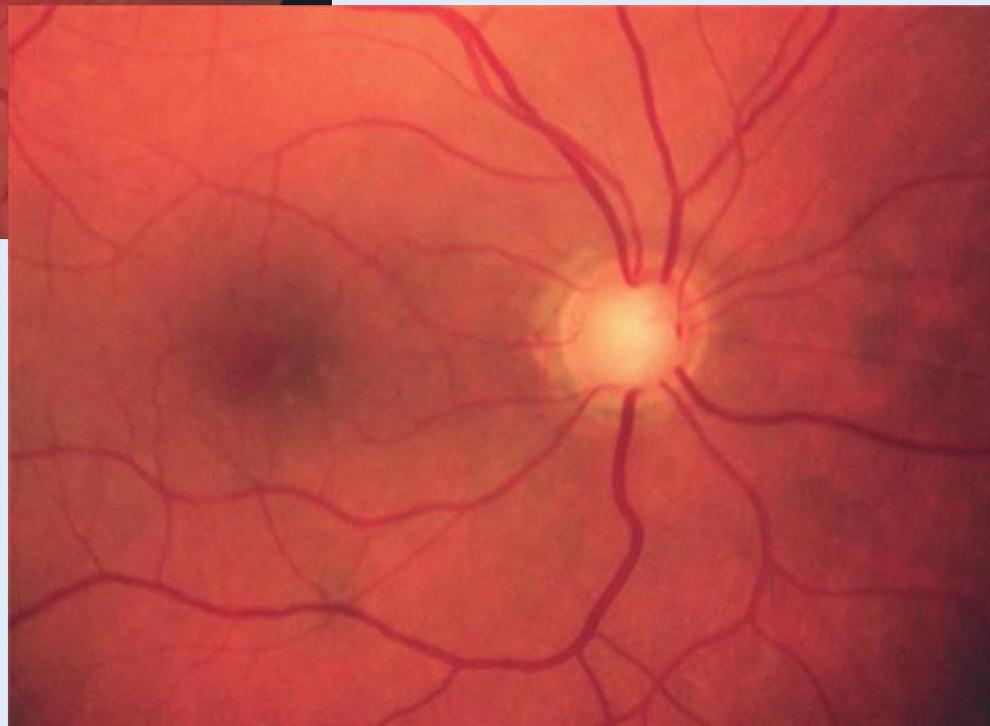
Fig. Fundus of the eyeball

A. centralis retinae





Untersuchung

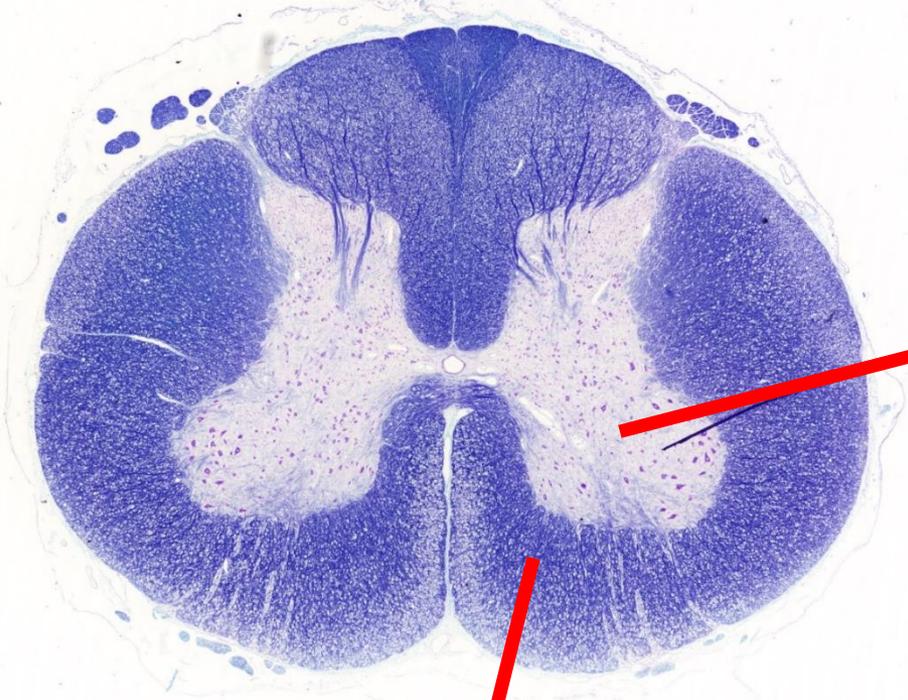


Präparate und Strukturen zu erkennen

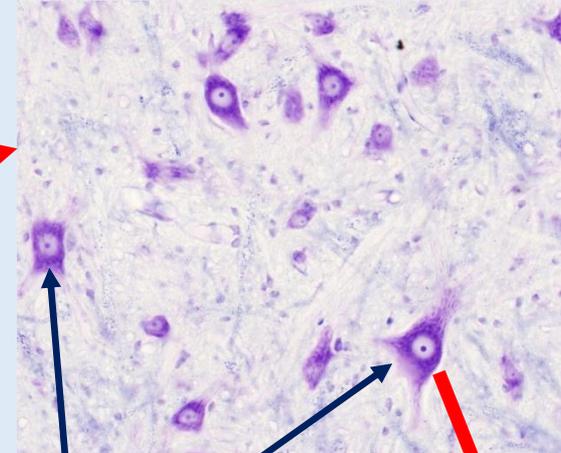
101. Rückenmark (Luxol-fastblue + Kresylviolett)

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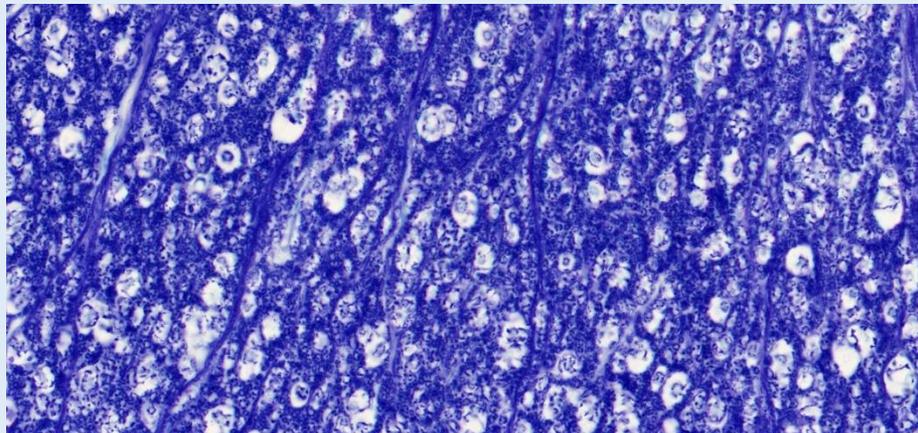
Kresylviolett



weisse Substanz



multipolare Neuronen
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Myelinscheide

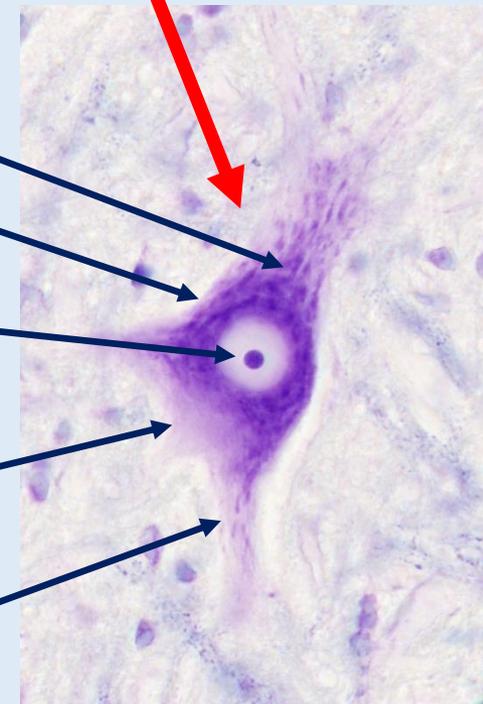
Nissl-Schollen

Perykarion

Zellkern
(Nukleolus)

Axon
(Axonhügel)

Dendrit

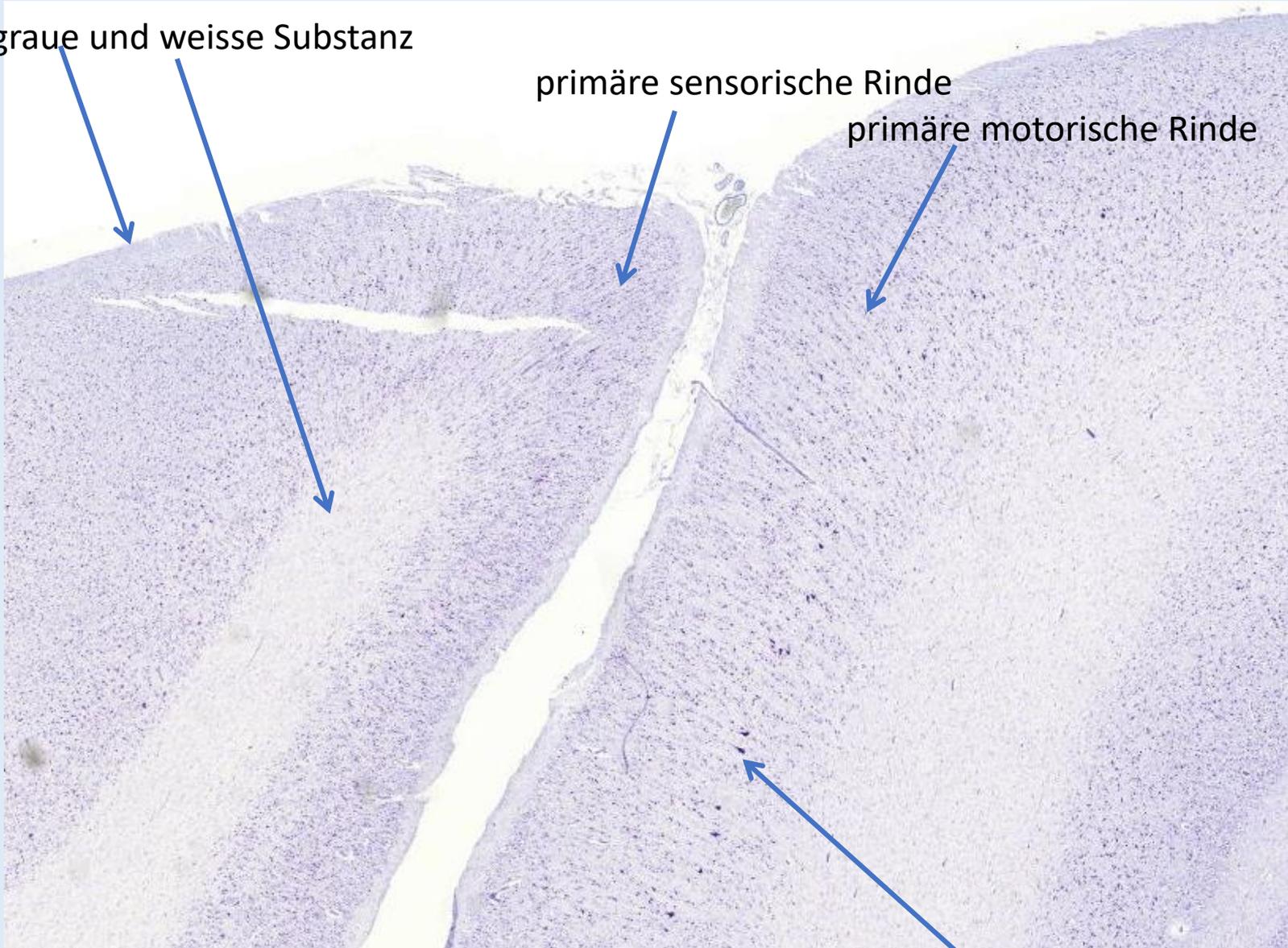


22.Cortex cerebri

graue und weisse Substanz

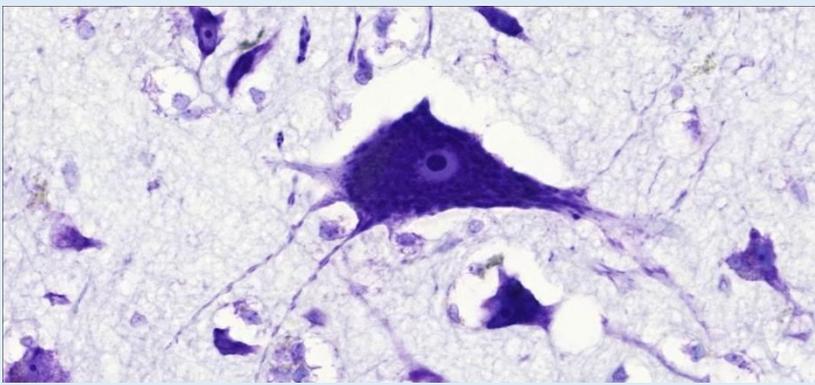
primäre sensorische Rinde

primäre motorische Rinde

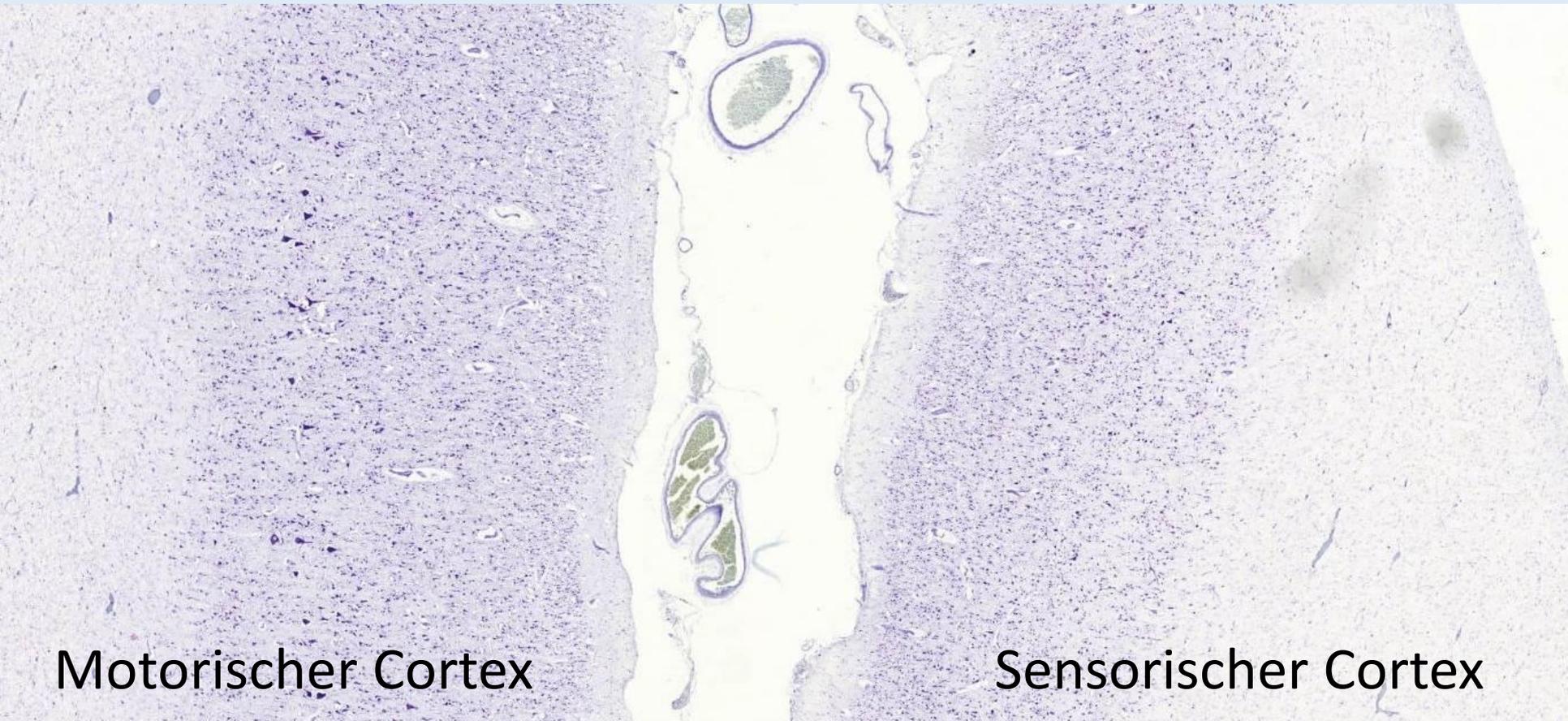


Betz-Riesenzellen
Stratum pyramidale internum

22. Cortex cerebri



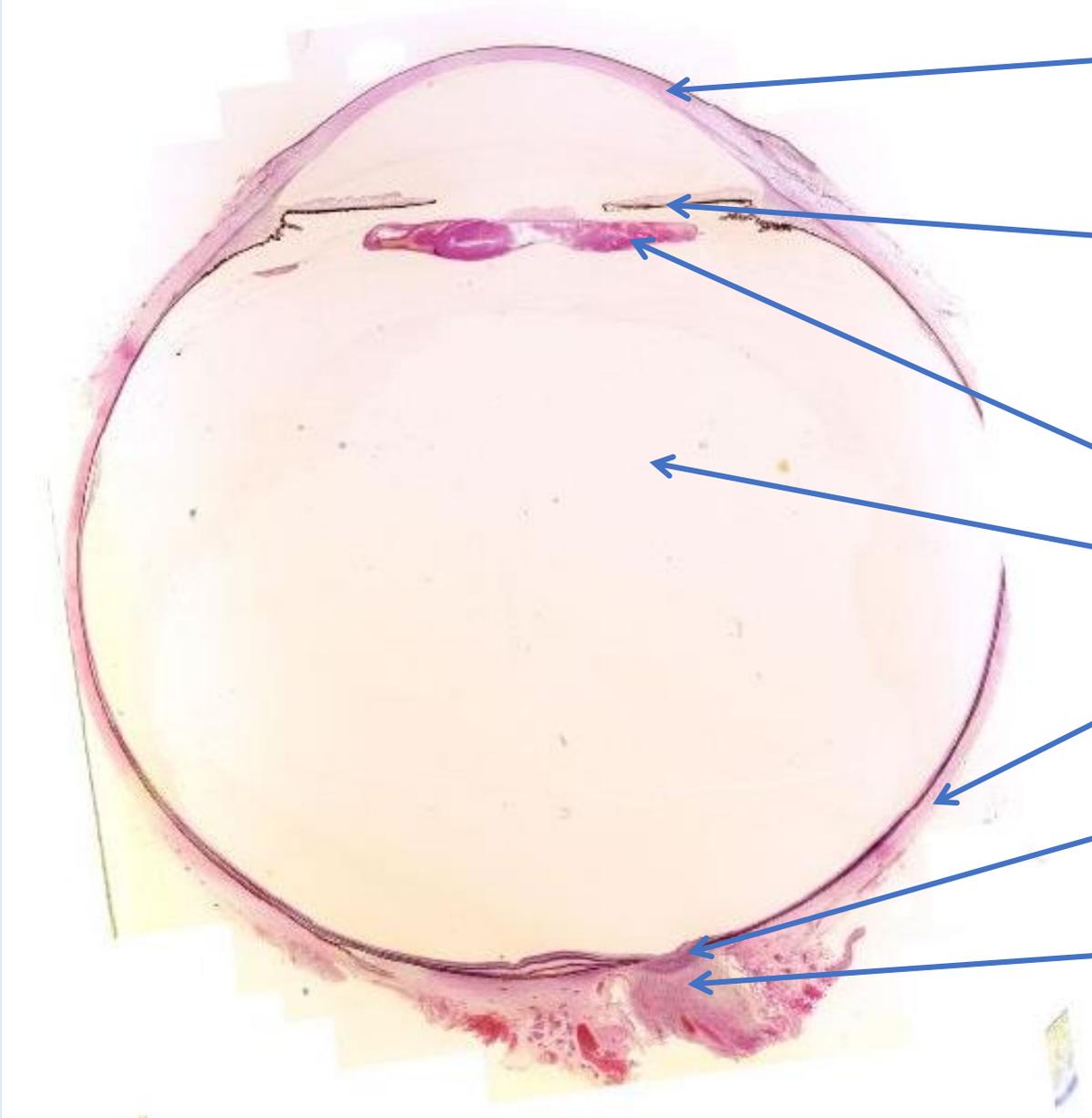
Pyramidenzelle



Motorischer Cortex

Sensorischer Cortex

29. Augapfel HE



Cornea

Iris

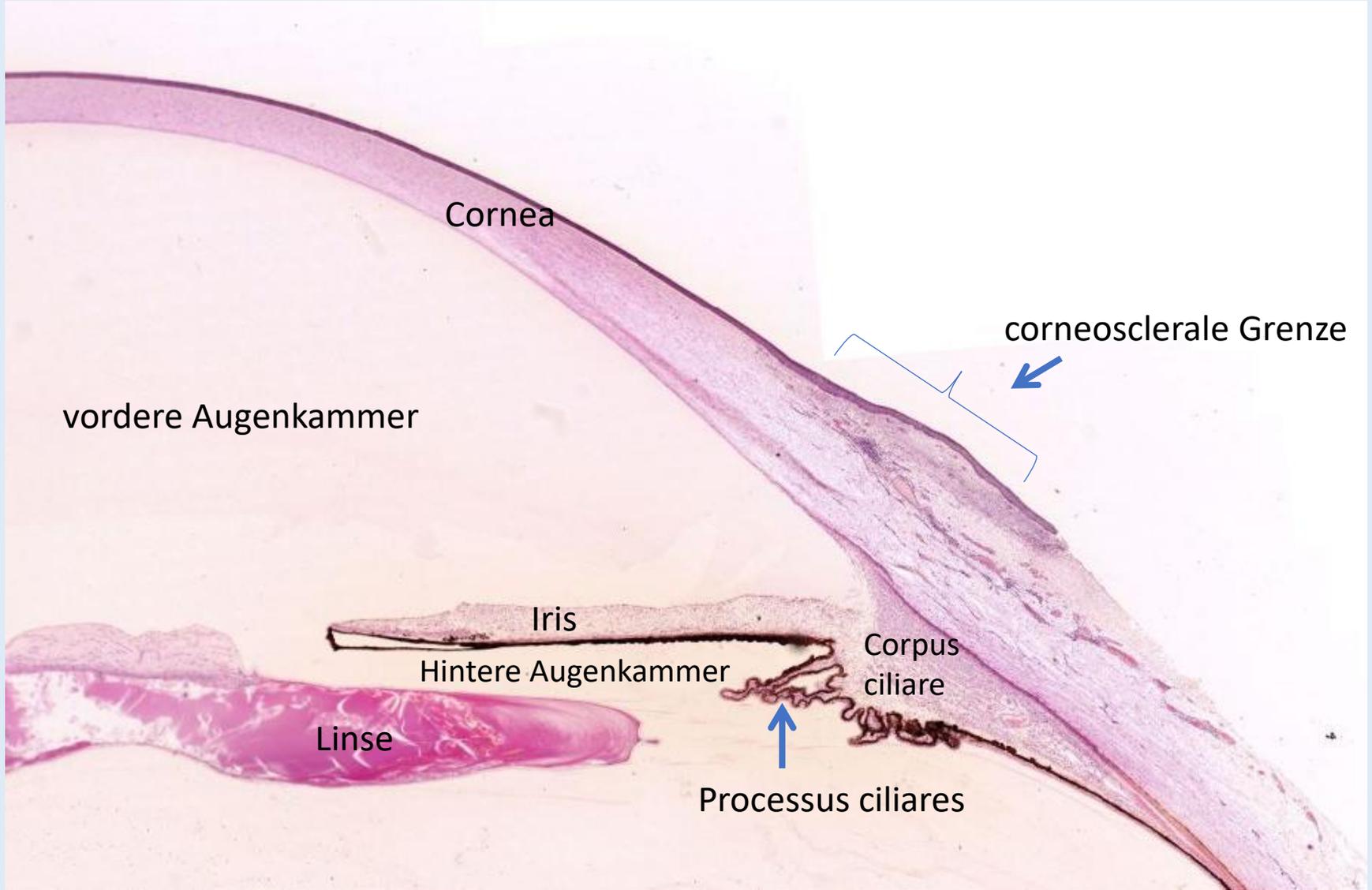
Linse

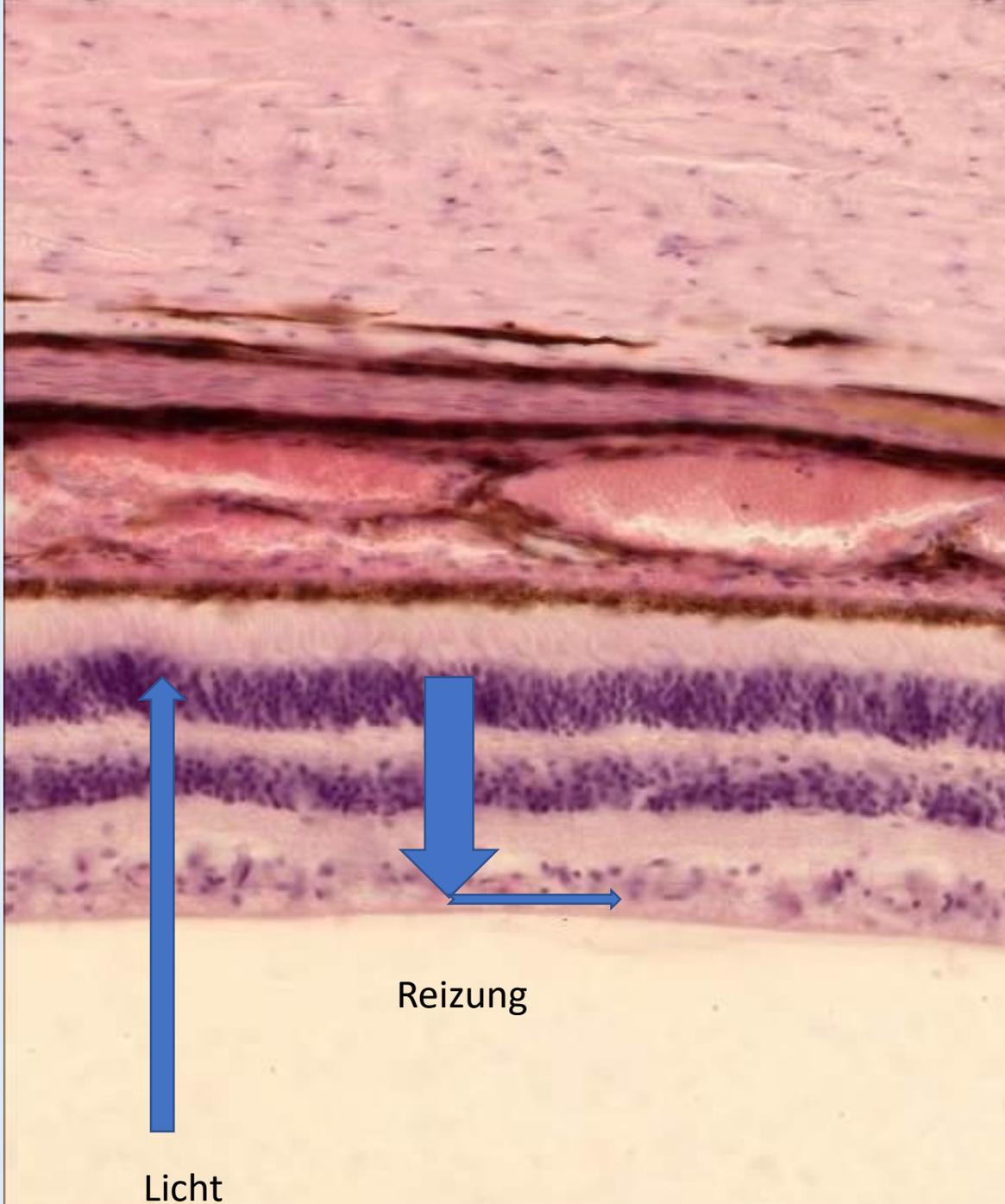
Glaskörper

Sclera

Papilla nervi optici

Nervus opticus





Sclera

Choroidea

Pigmentepithel

Stäbchen- und Zapfenzellen

Stratum granulosum externum

Stratum granulosum internum

Stratum ganglionare

Licht

Reizung