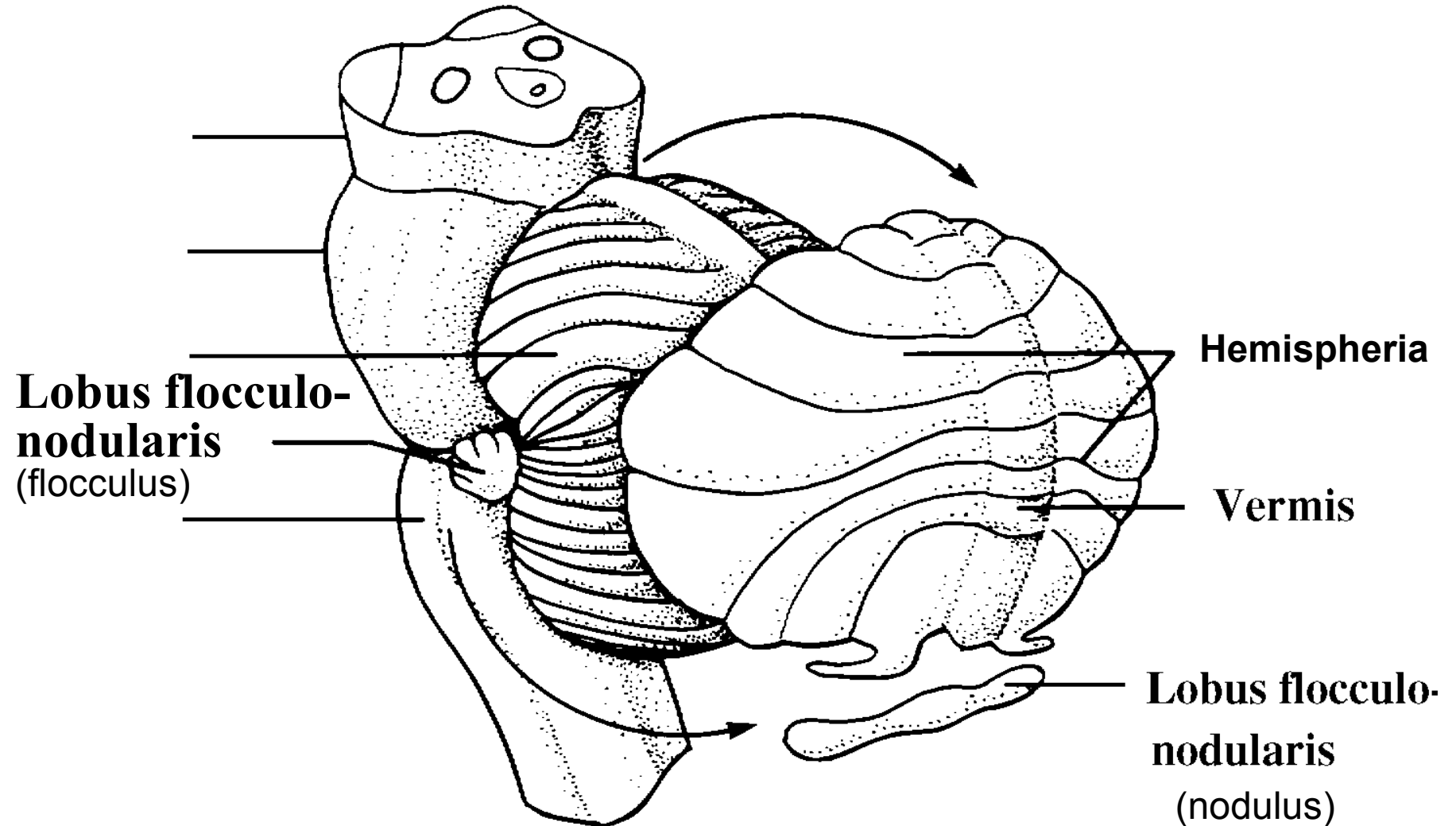
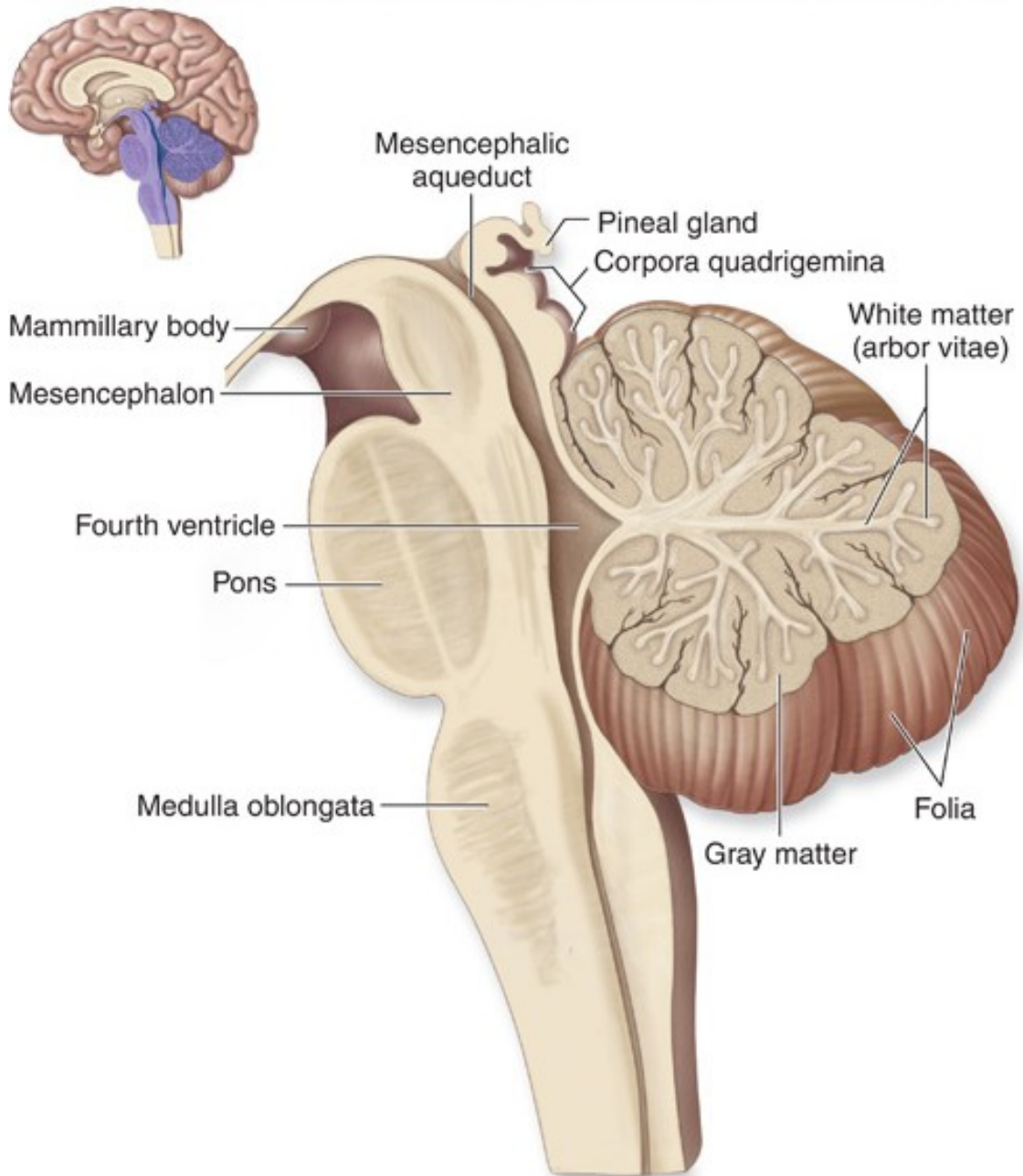


# CEREBELLUM

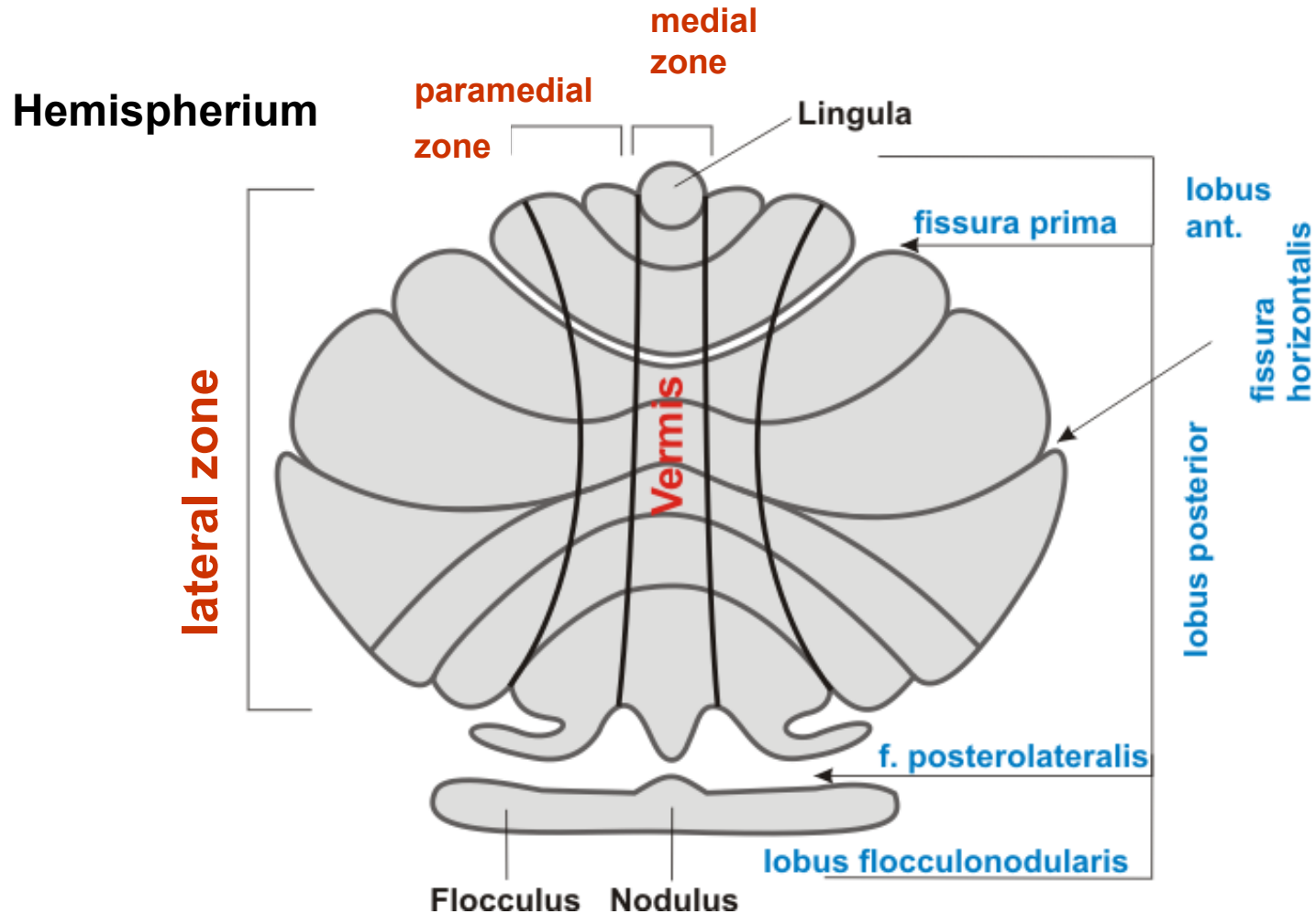
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# CEREBELLUM

## basic horizontal and vertical arrangement



# CORTEX AND CEREBELLAR NUCLEI

Gray mater (cortex + ncll.) and white mater (including pedunculi cerebellares)

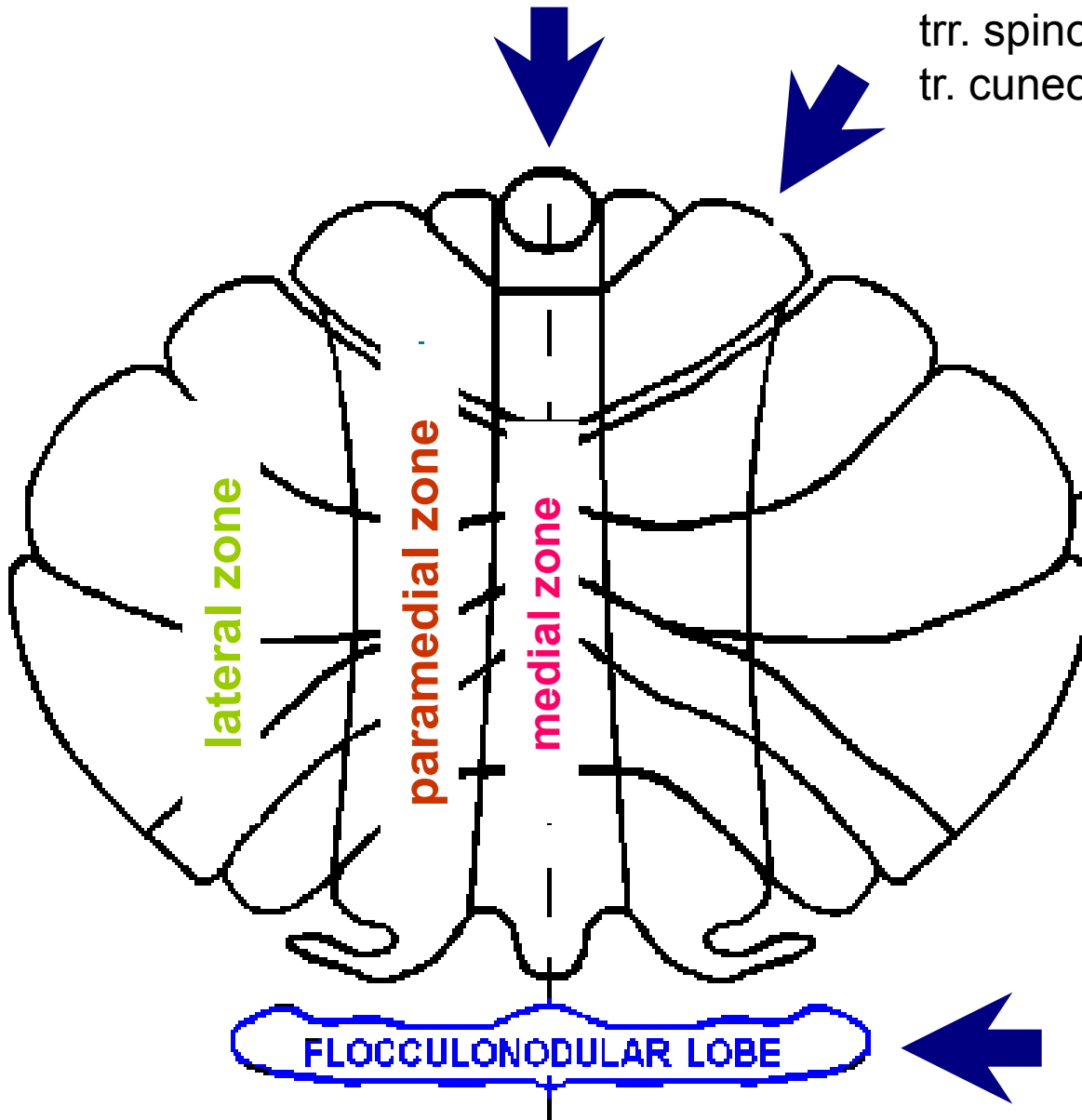
**Medial zone** - cortex covering vermis + ncll. fastigii

**Paramedial zone** - paramedial cortex + ncll. emboliformes et globosi

**Lateral zone** – lateral cortex + ncl. dentatus

trr. spinocerebellares

trr. spinocerebellares  
tr. cuneocerebellaris



lateral zone

paramedial zone

medial zone

FLOCCULONODULAR LOBE

tr. pontocerebellaris

tr. vestibulocerebellaris

## **FUNCTION OF VESTIBULAR CEREBELLUM**

- **basic significance for maintenance of balance - trr. vestibulospinales**
- **influence to lower motoneurons for axial muscles**
- **a role during control of eye movement and their coordination with movement of head**

## **FUNCTION SPINAL CEREBELLUM – MEDIAL ZONE**

- **control of axial muscles at keeping of upright posture through cortex and tr. corticospinalis ant.**

## **FUNCTION OF SPINAL CEREBELLUM - PARAMEDIAL ZONE**

- **control of spinal cord motoneurons for distal muscles of extremities through cortex and tr. corticospinalis lat.**

## **FUNCTION OF PONTOCEREBELLUM**

- **control of motor planning and target movement**
- **non-motor function (cognition) - solution of problem and linguistics phrasing**