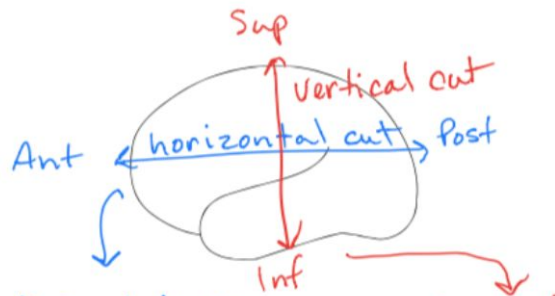
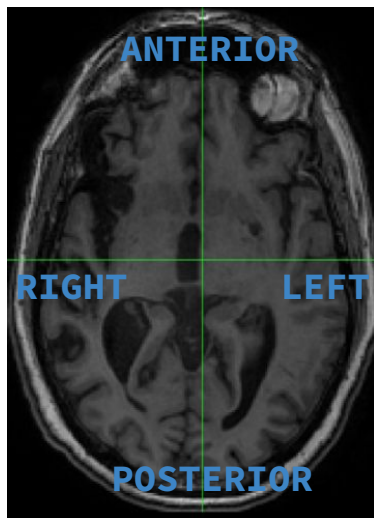


NEUROANATOMY FOR LESION TRACING

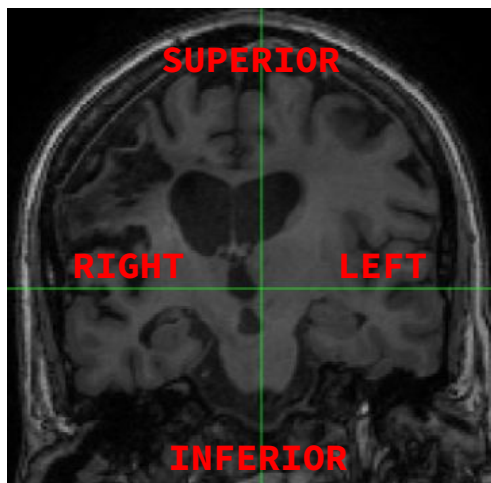
NAVIGATING THE BRAIN



AXIAL/HORIZONTAL SLICE

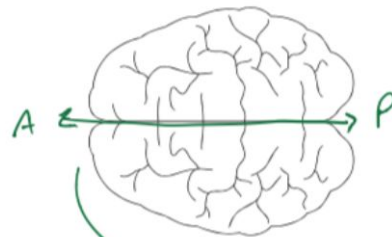


CORONAL SLICE

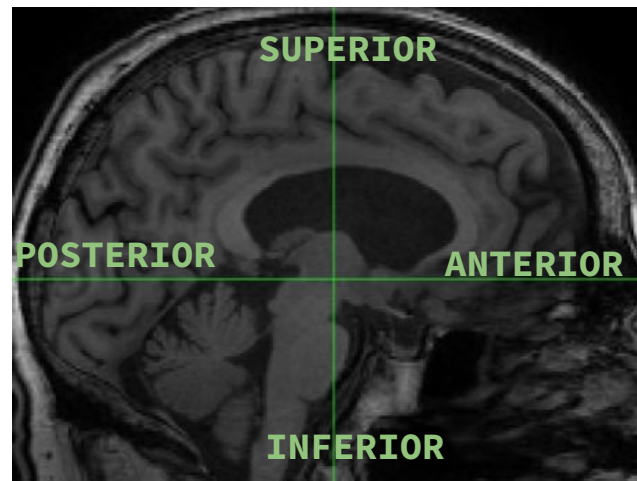


ANTERIOR=ROSTRAL

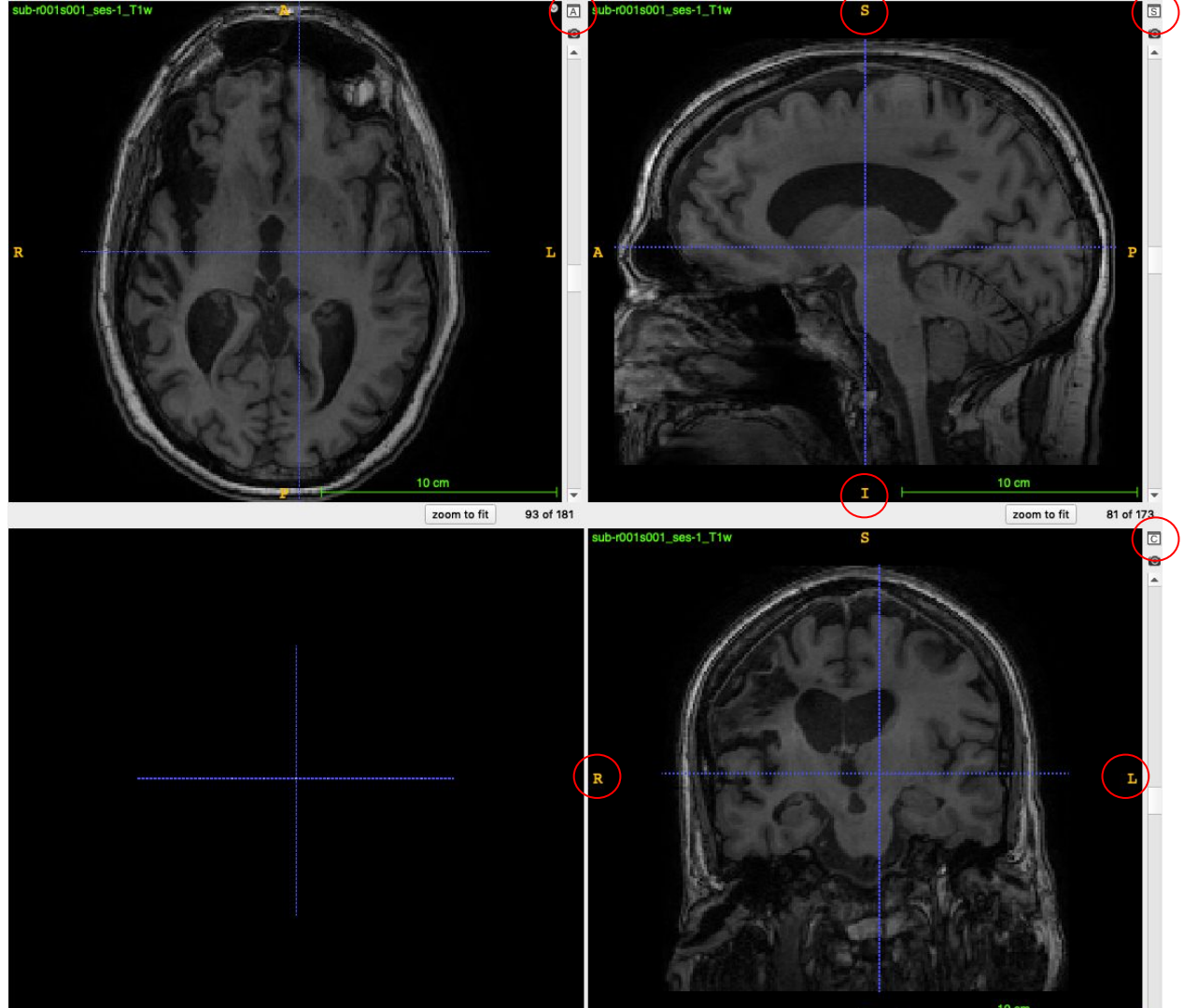
POSTERIOR=CAUDAL



SAGITTAL SLICE



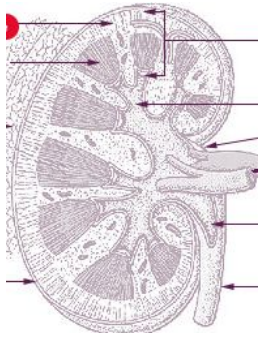
ITK-SNAP
LETS YOU
KNOW!



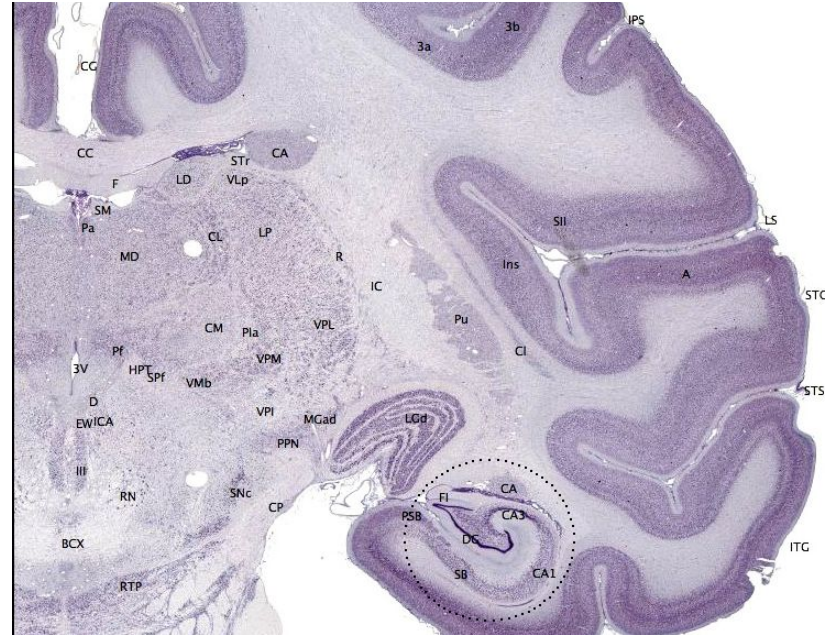
CORTEX- THE OUTER MOST LAYER OF AN ORGAN

Lots of organs have well defined cortical layers

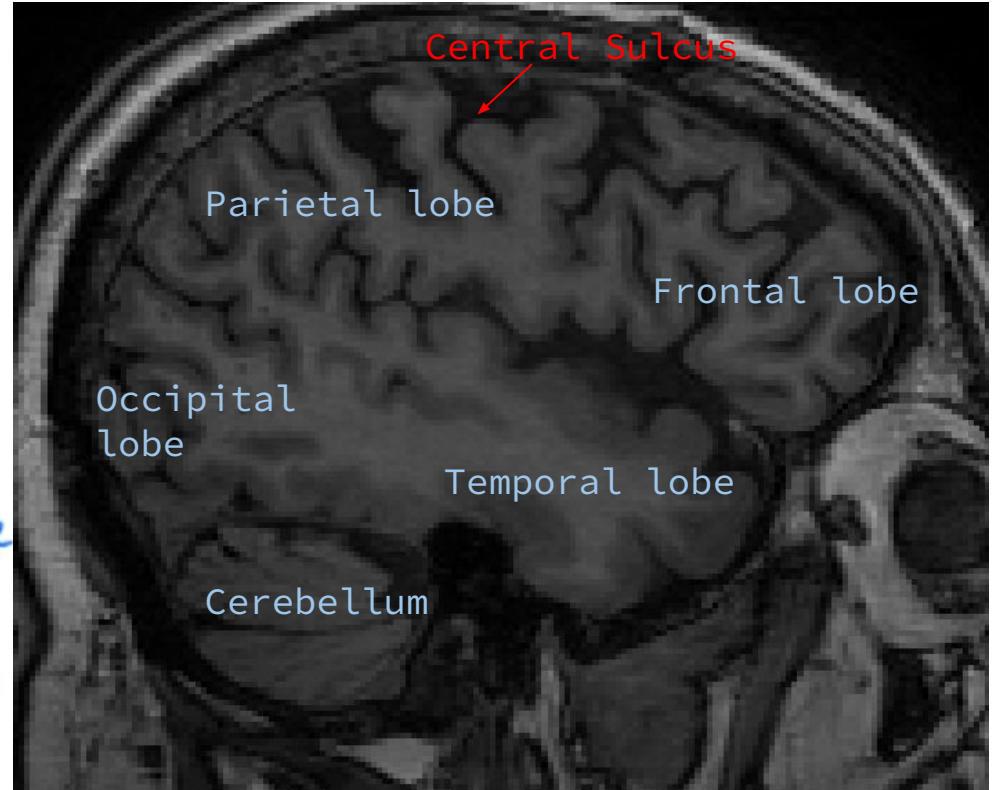
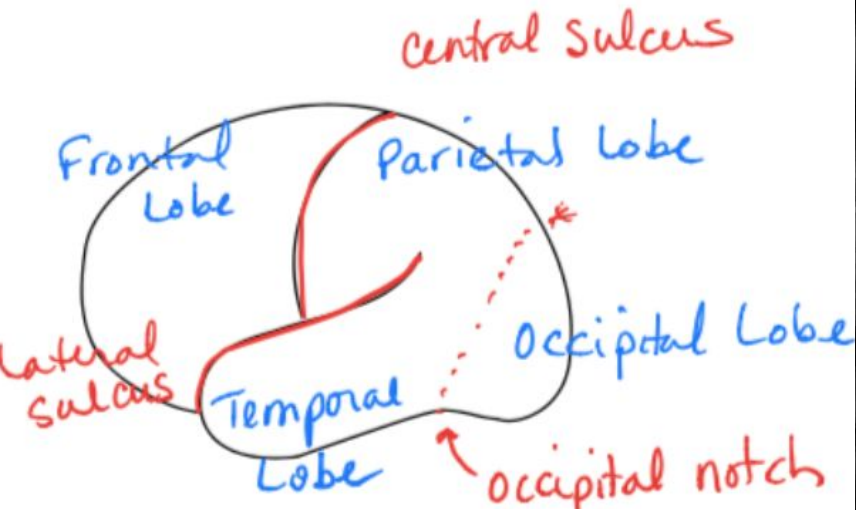
Kidney



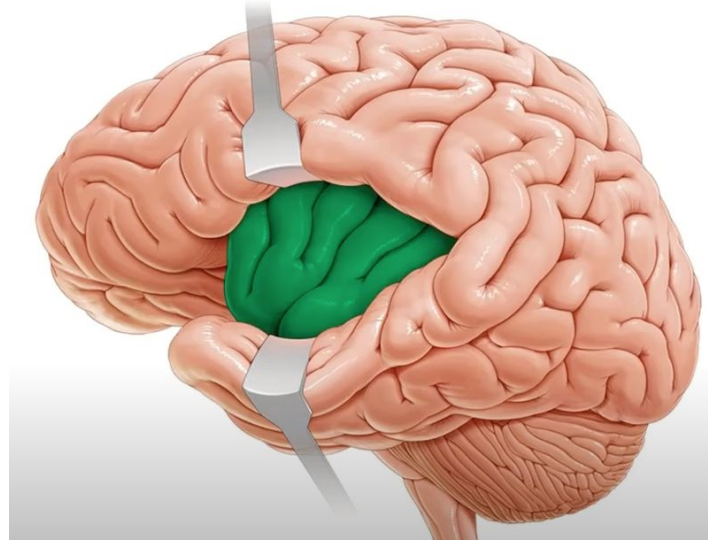
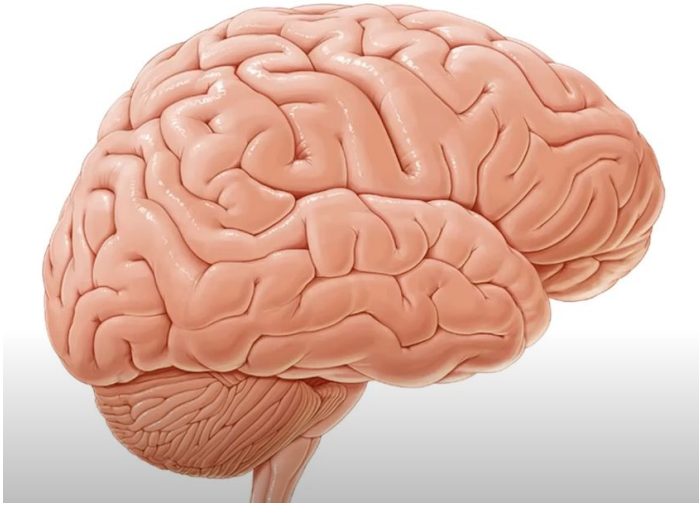
Cerebral Cortex



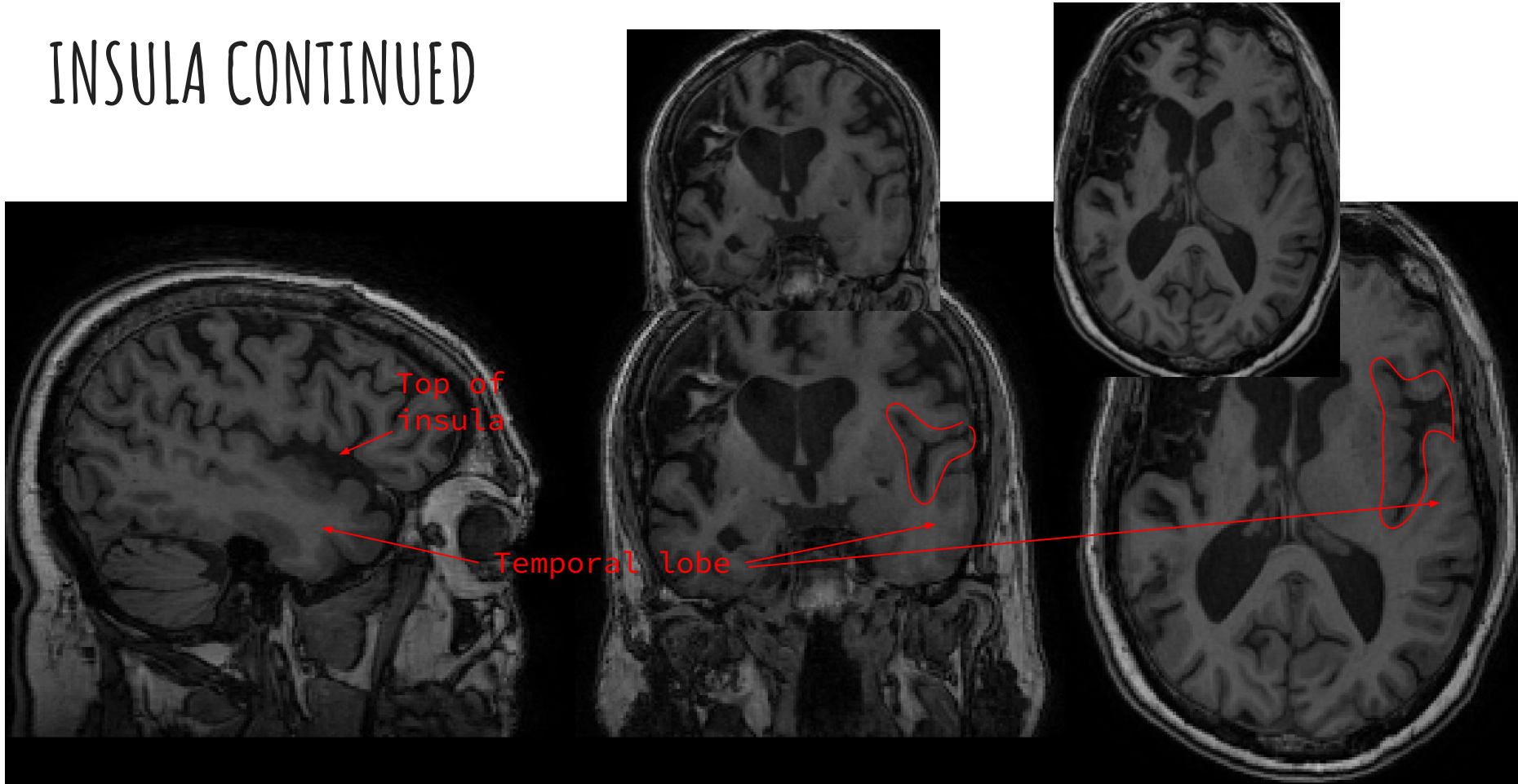
CORTICAL LOBES



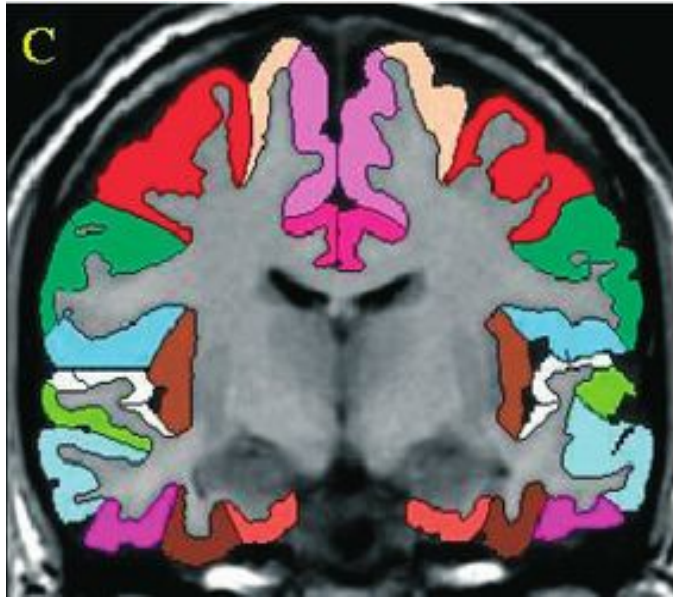
INSULA- AN IMPORTANT CONFUSING CORTICAL REGION



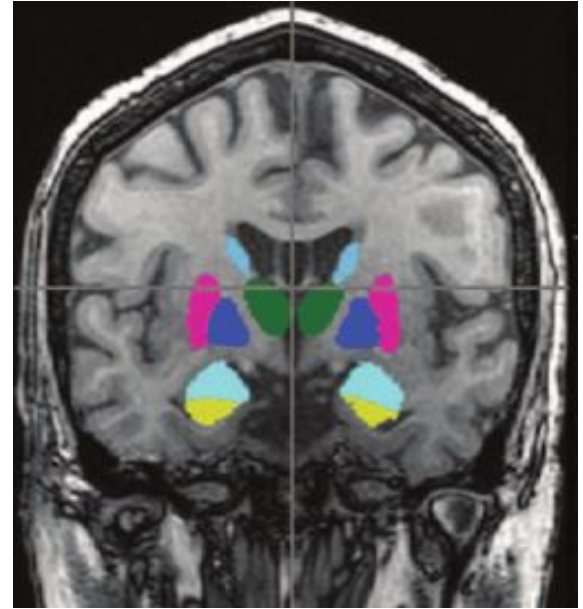
INSULA CONTINUED



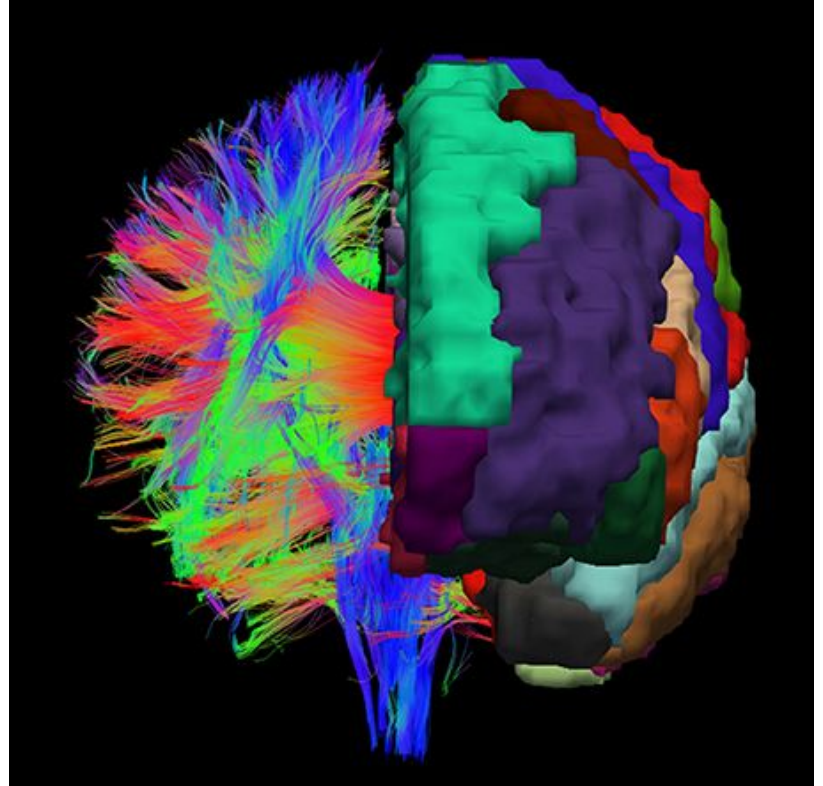
CORTICAL



SUBCORTICAL



BRAIN IS A NETWORK OF CORTICAL AND SUBCORTICAL CONNECTIONS



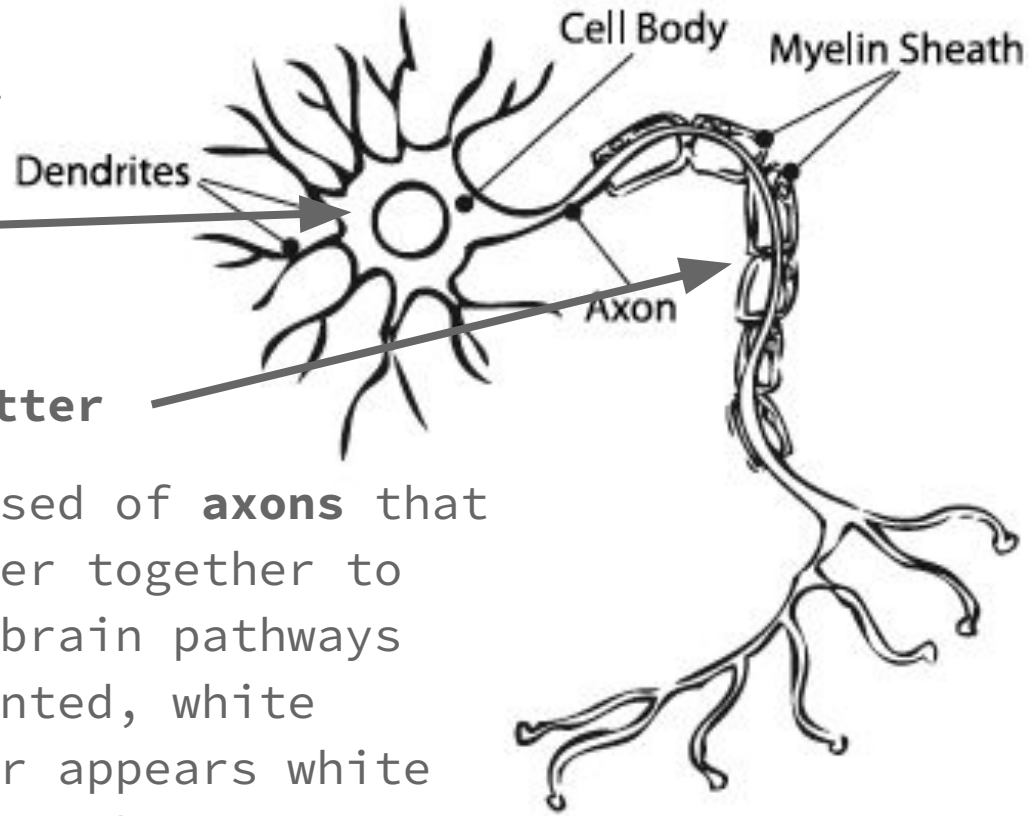
WHITE MATTER VS GRAY MATTER

Gray Matter

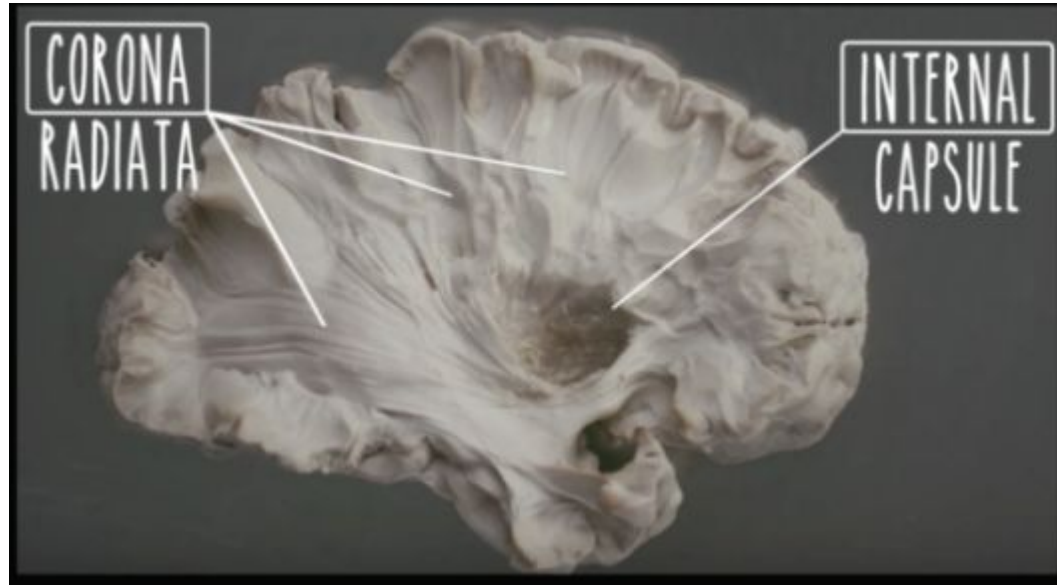
- Consists mostly of **neuron cell bodies** that cluster together
- Appears “gray” because it contains **very few myelinated axons**

White Matter

- Composed of **axons** that cluster together to form brain pathways
- Unsainted, white matter appears white because they are **myelinated**



WHITE MATTER ACTUALLY LOOKS LIKE LITTLE PATHWAYS!

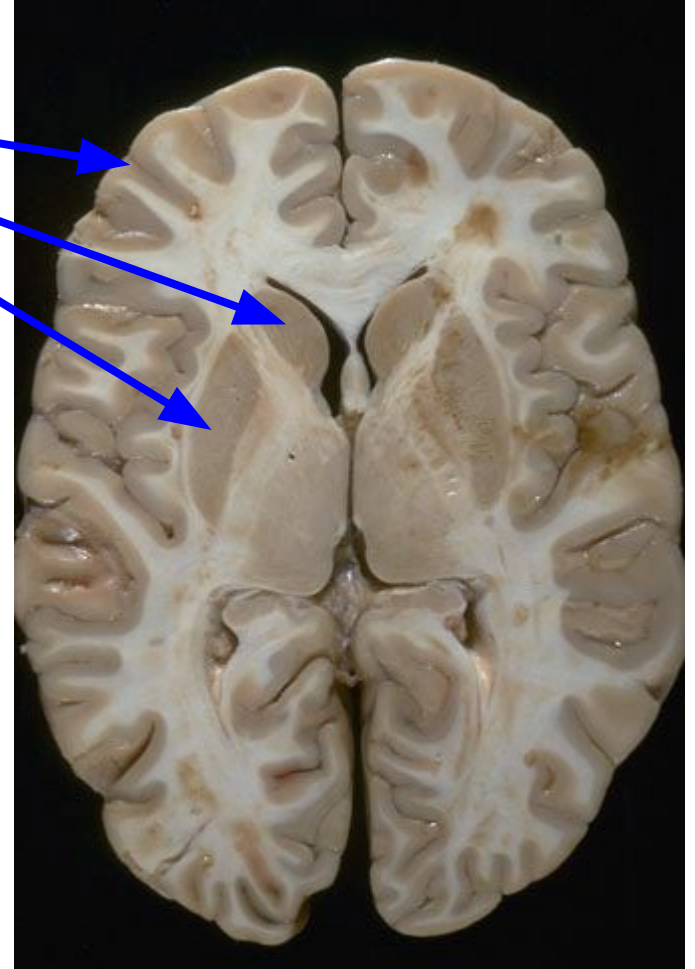
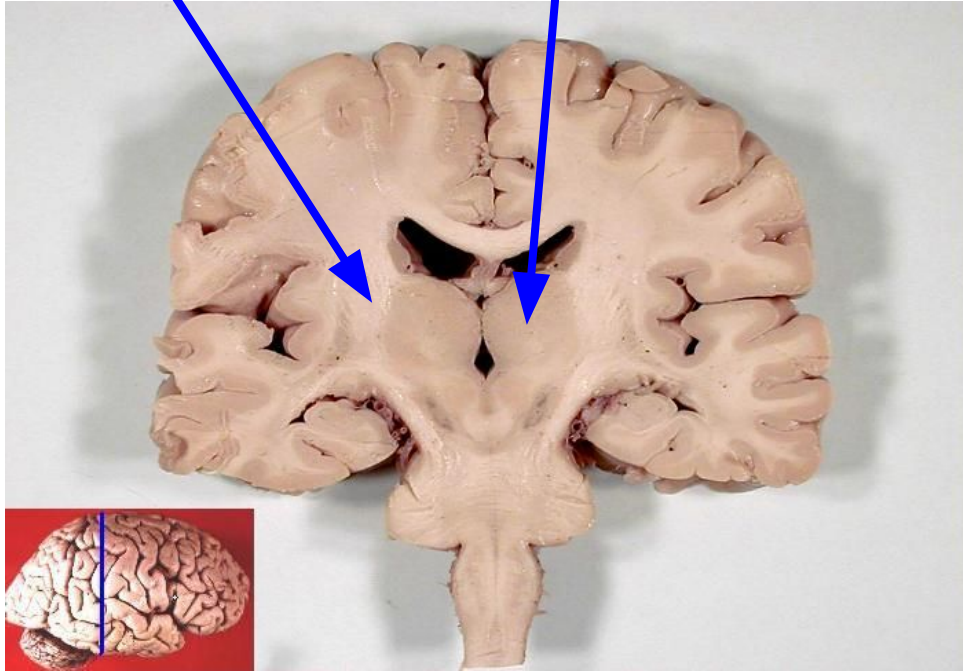


ACTUAL BRAIN SPECIMENS

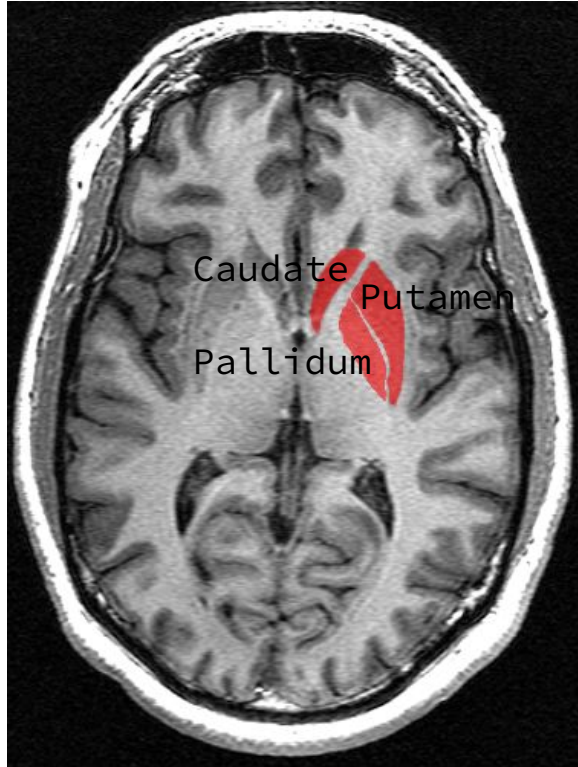
White
Matter

Mostly gray
but also
some white!

Gray
Matter



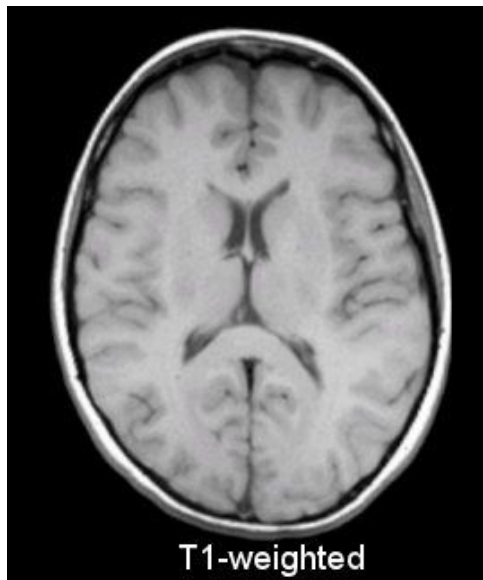
BASAL GANGLIA- SUPER IMPORTANT GRAY MATTER REGIONS



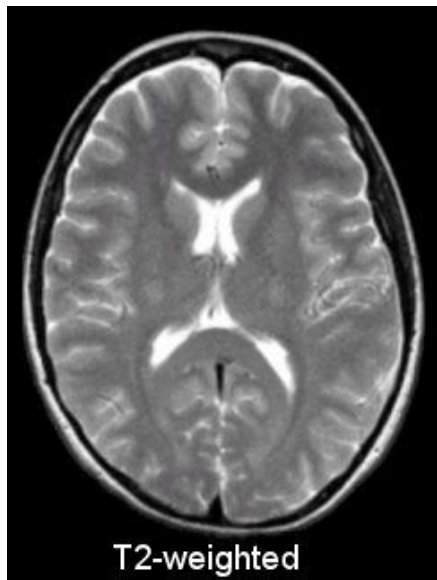
Gray matter so appear dark

Consist of caudate, putamen,
pallidum

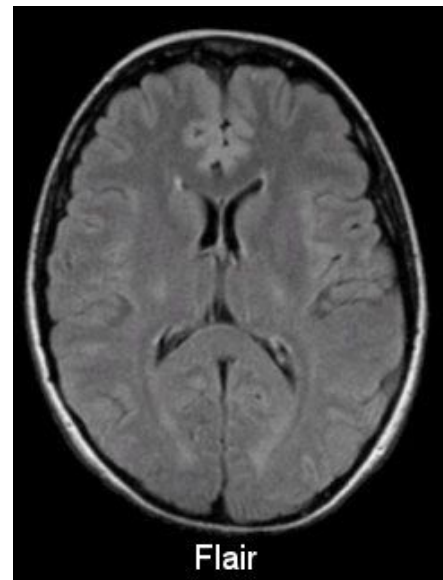
MRI AS A REFLECTION OF TISSUE PROPERTIES



- Gray matter=dark
- White matter=light
- Cerebrospinal fluid=black
- Lesion=black

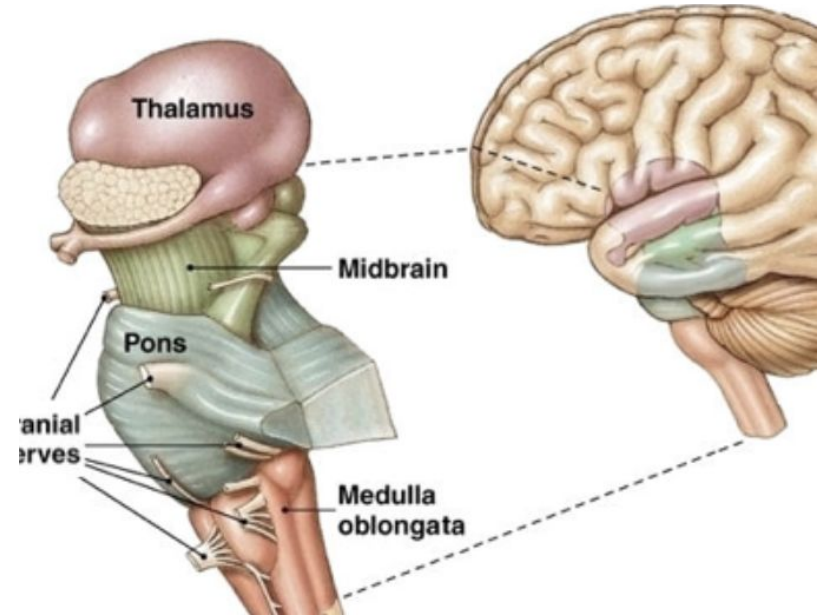
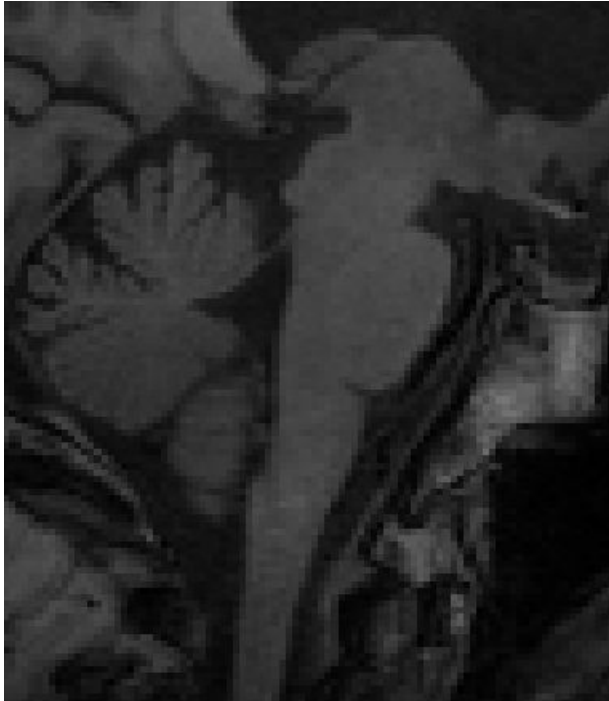


- Gray matter=light
- White matter=dark
- Cerebrospinal fluid=white
- Lesion=white

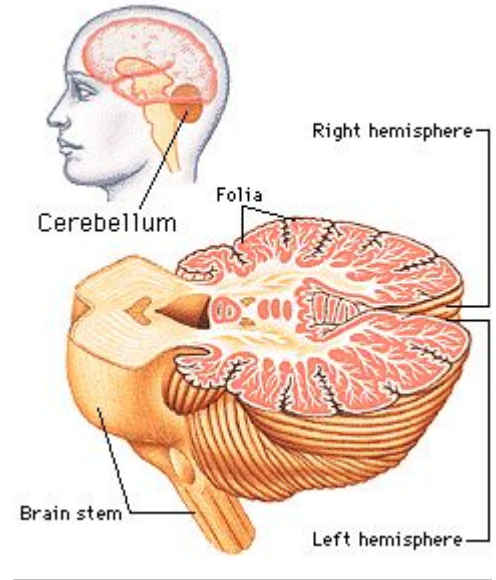
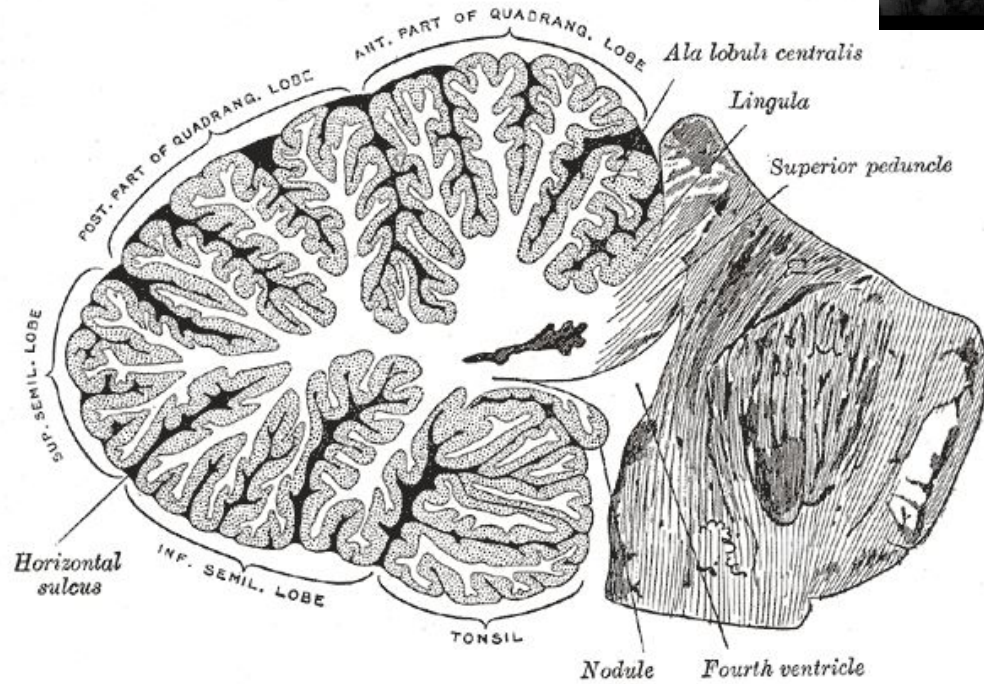
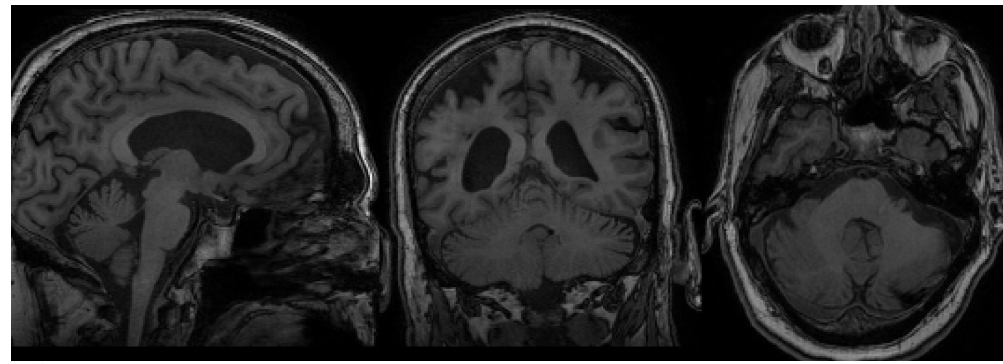


- Gray matter=light
- White matter=dark
- Cerebrospinal fluid=dark
- Lesion=white

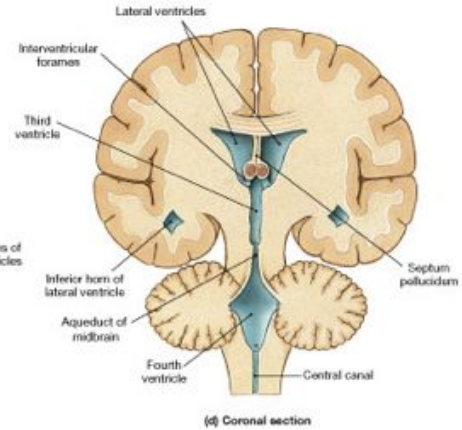
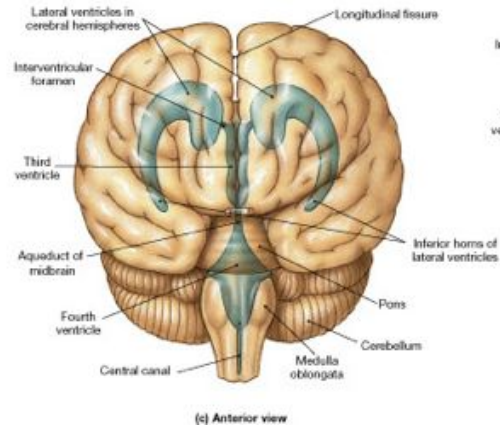
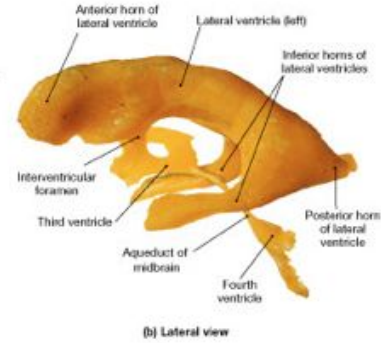
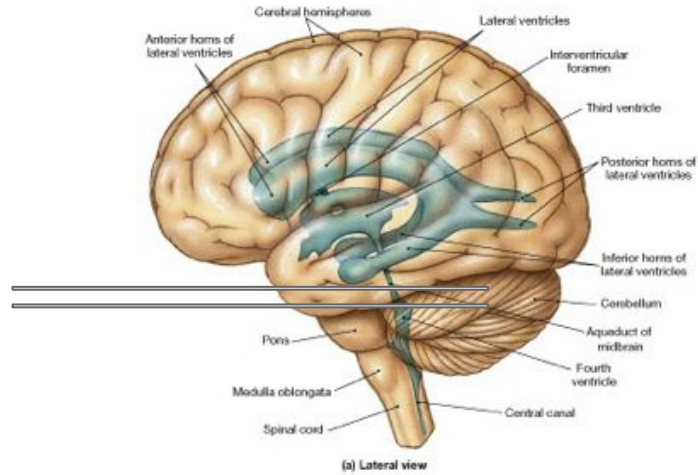
BRAINSTEM



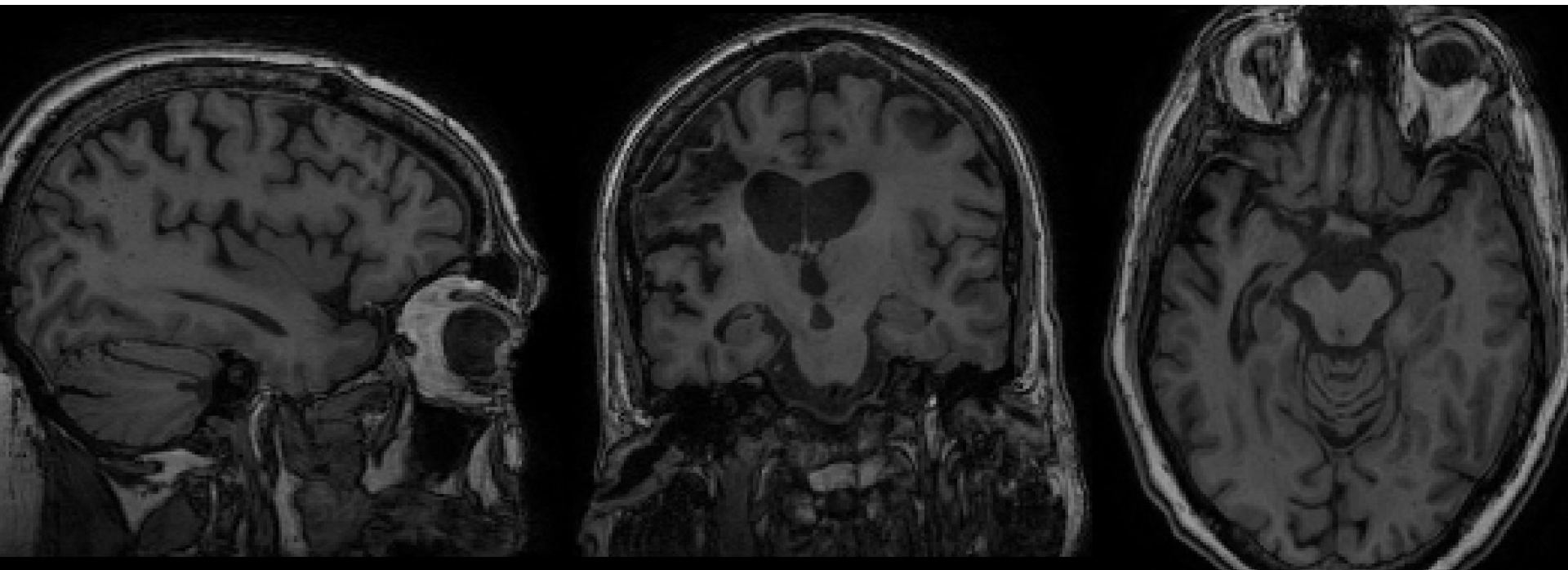
CEREBELLUM



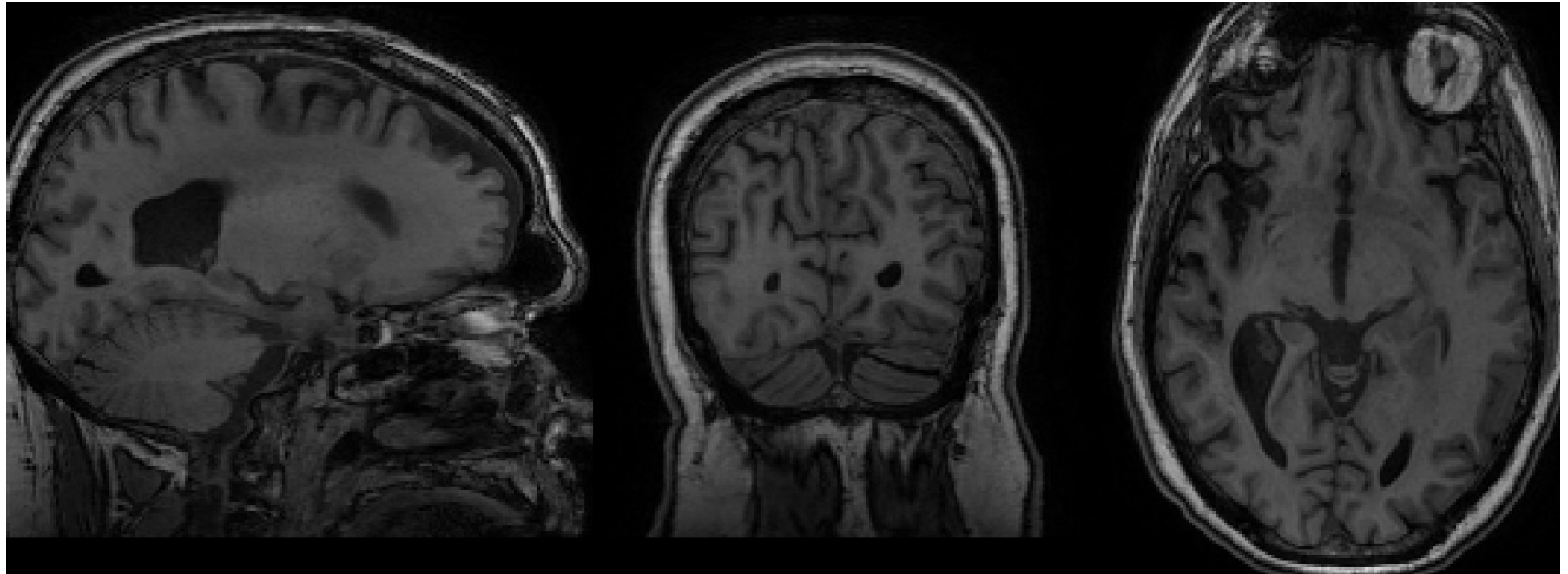
VENTRICLES



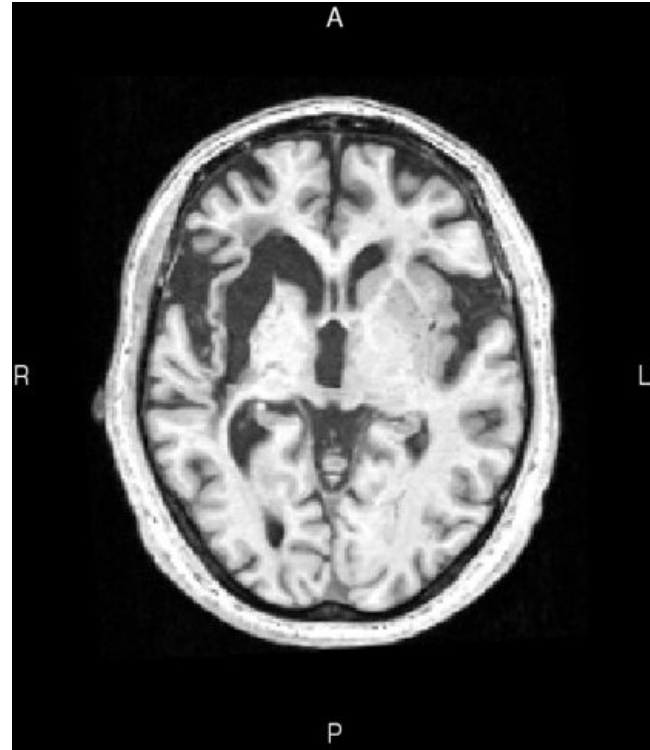
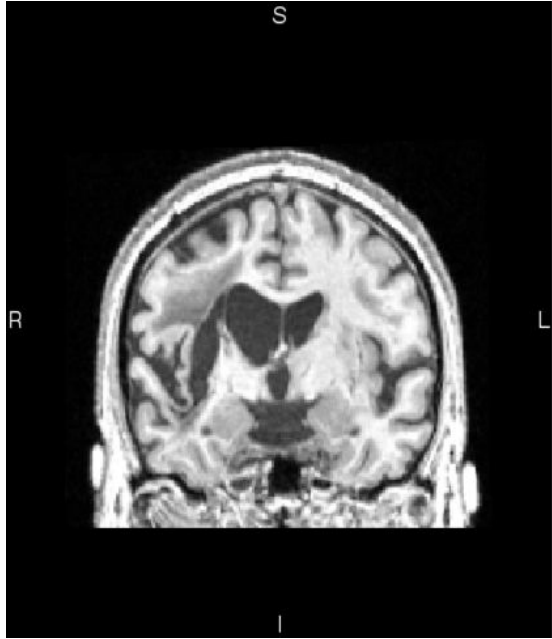
VENTRICLES CONT



VENTRICLES CONT.

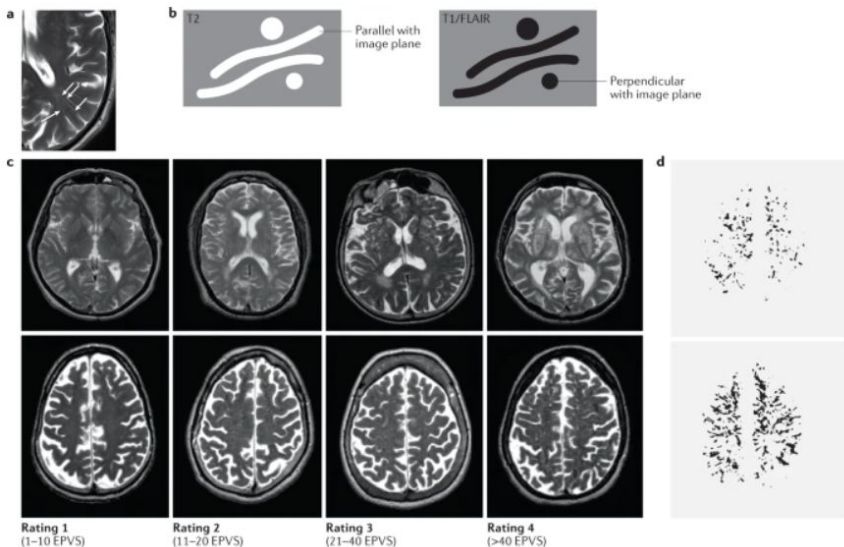


VENTRICULAR ASYMMETRY- HYDROCEPHALUS EX VACUO



PERIVASCULAR SPACES (PVS)

PVS is the space that surrounds blood vessels in the brain



Appear more and more with age

Possible indicator of cardiovascular risk

PVS COMMONLY APPEARS IN THE BASAL GANGLIA

