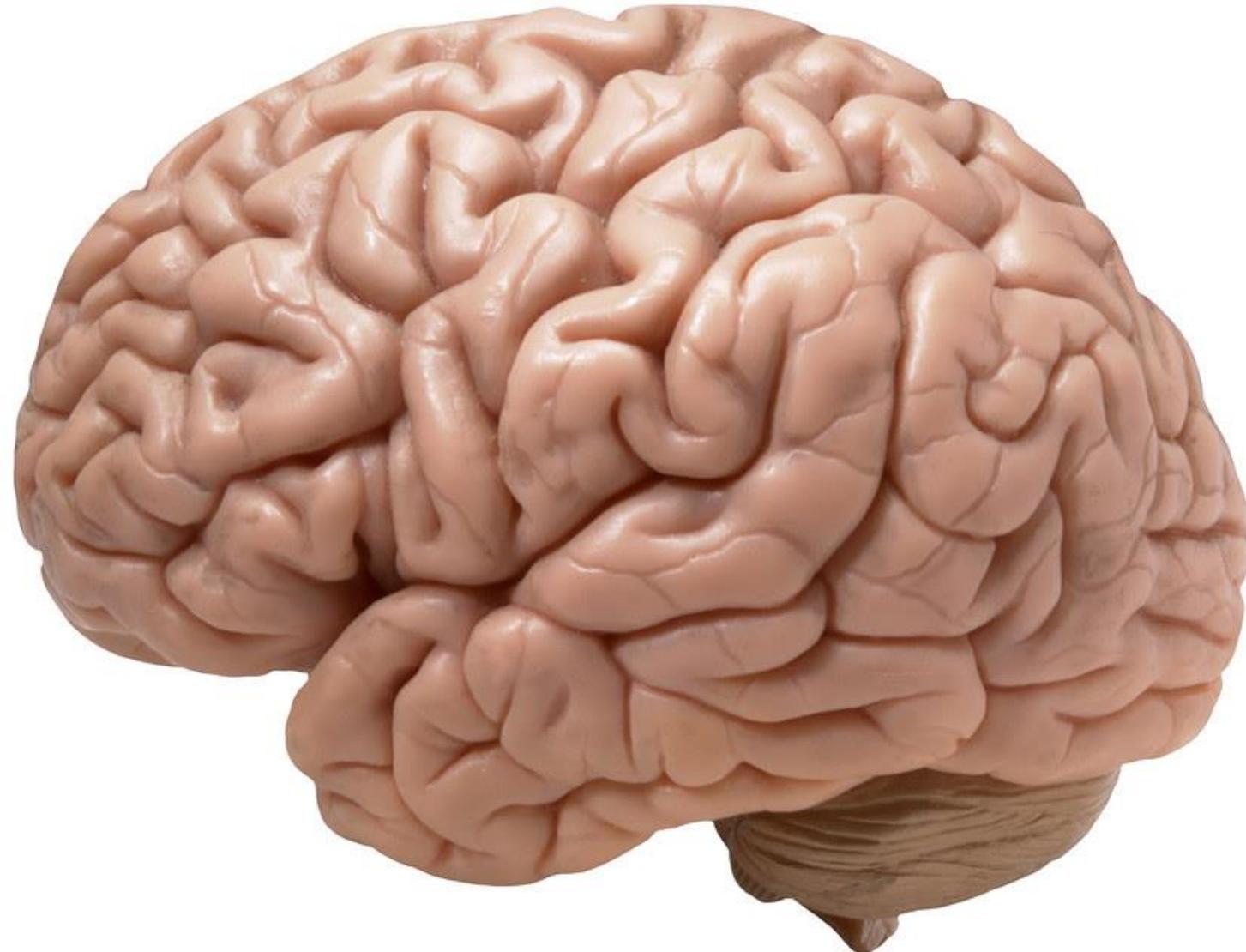


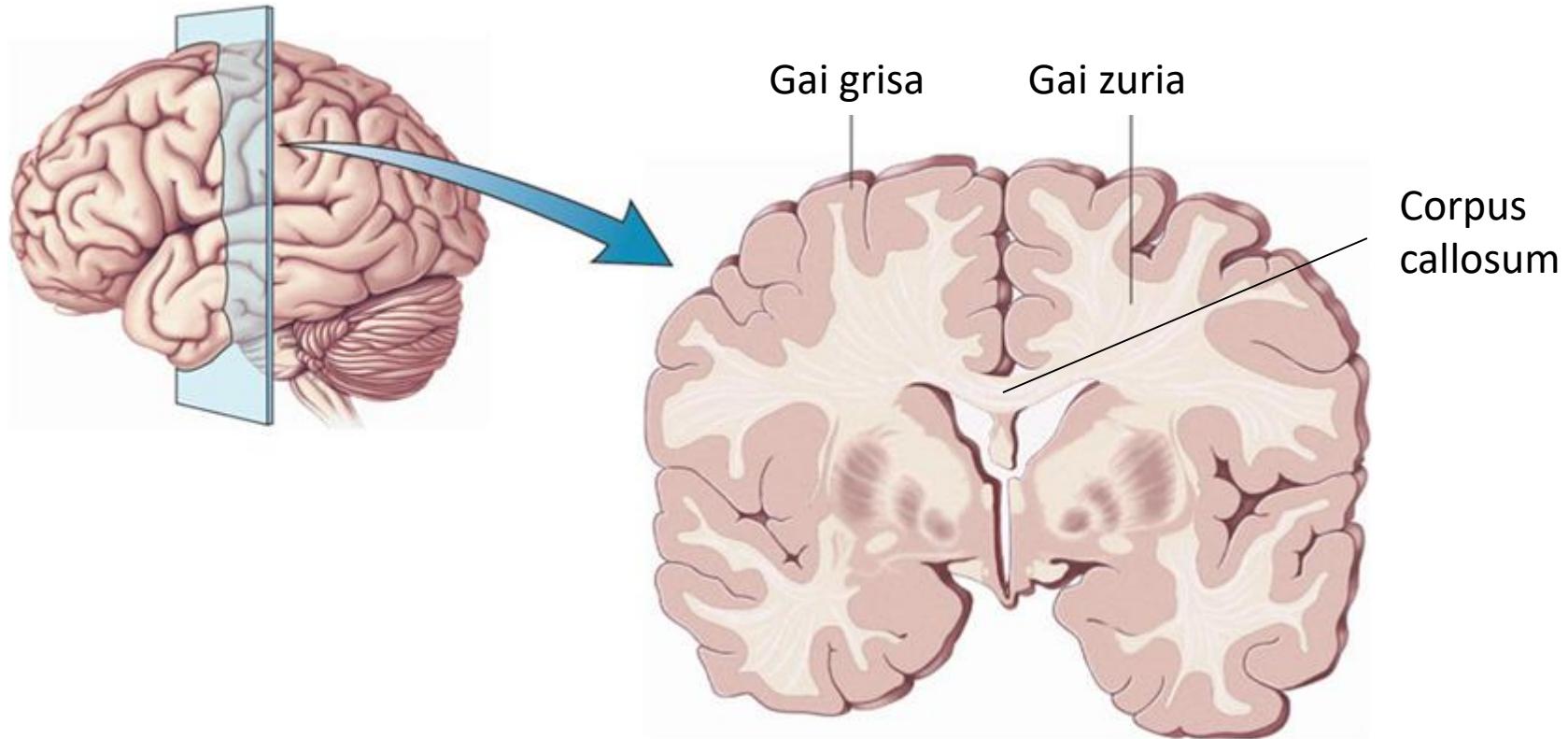


## 2. Hizkuntza burmuinean

a. Hizkuntzaren neuroanatomia



# Garuna

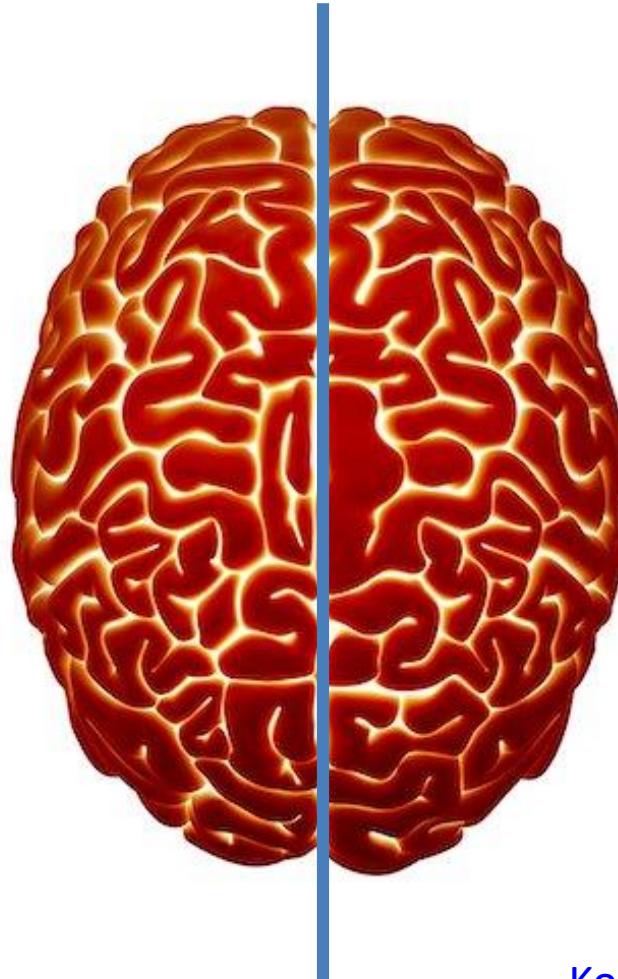


Iturria: [https://operativeneurosurgery.com/doku.php?id=white\\_matter](https://operativeneurosurgery.com/doku.php?id=white_matter)

# Lateralizazioa

Ezker Hemisferioa

Eskuin Hemisferioa

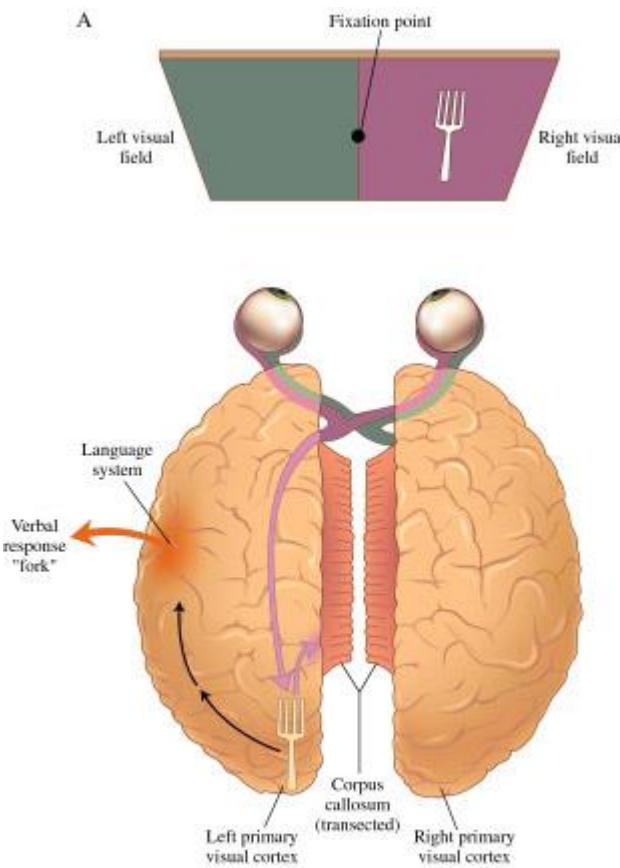
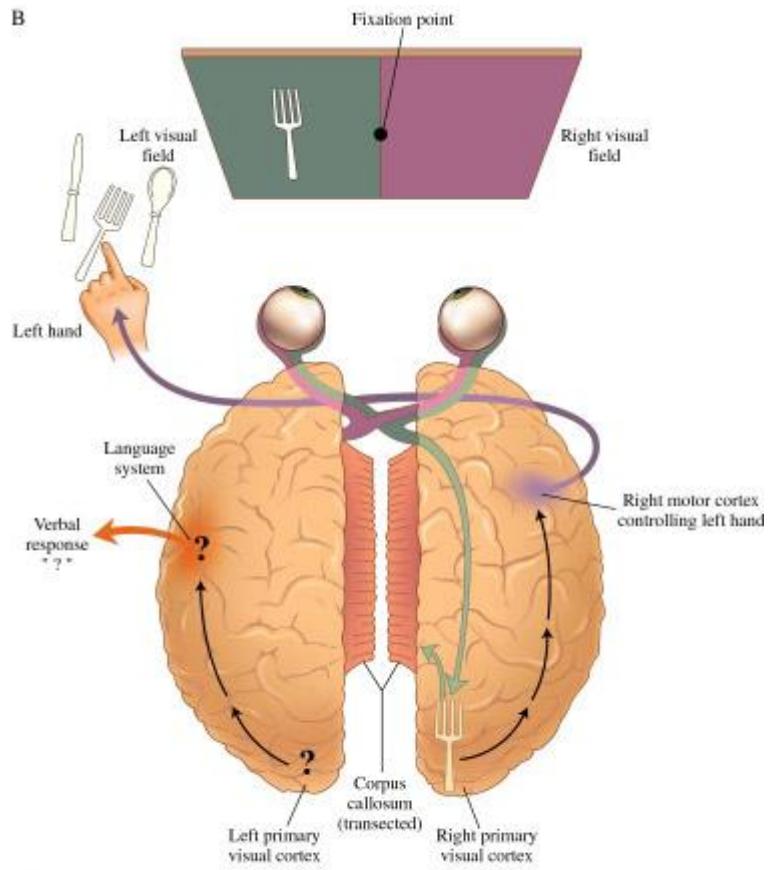


~ 97% eskuinak

~ 70% ezkertiak

[Wada testa](#)  
[Komisurotomia – Garun banatua](#)

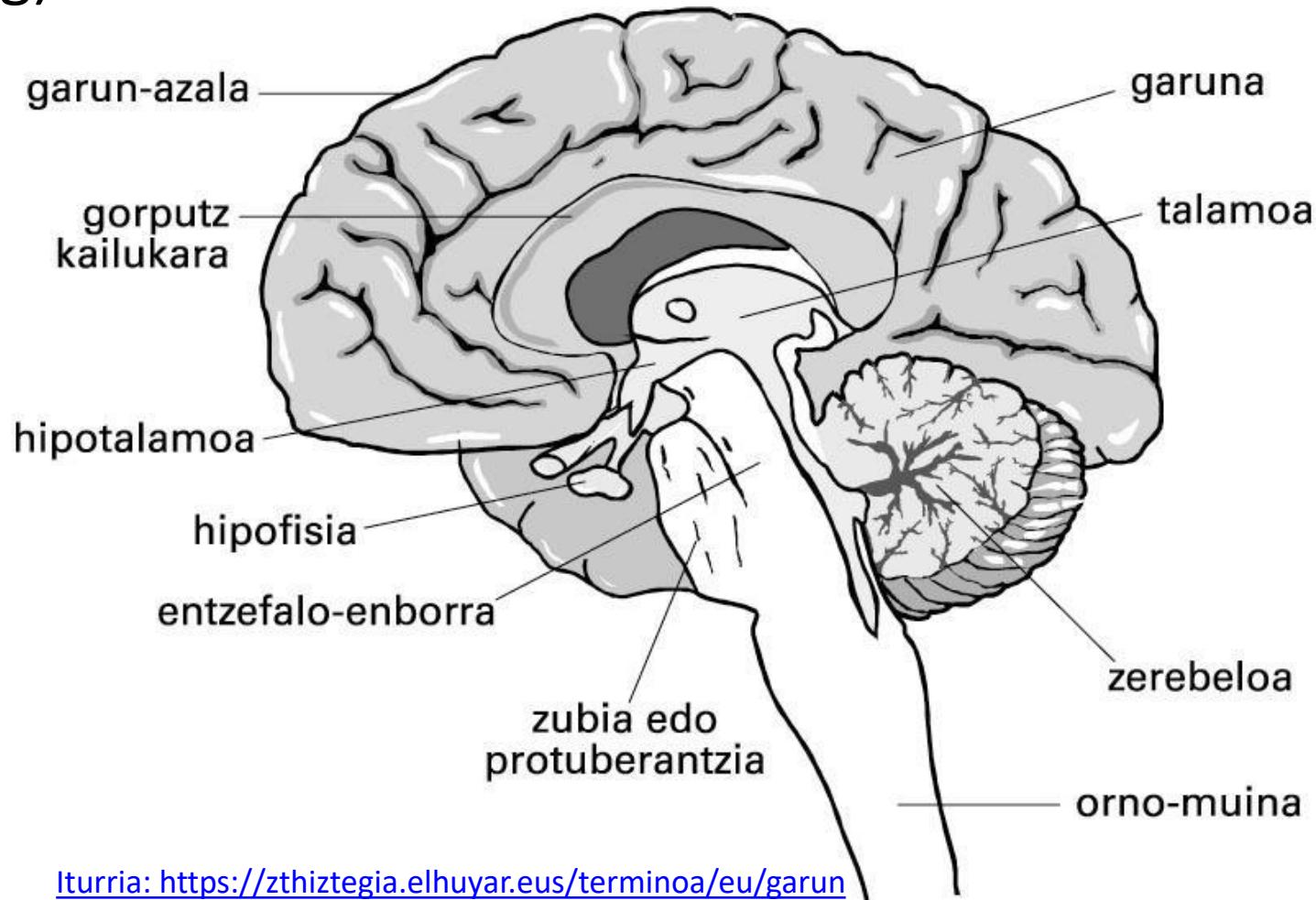
# Lateralizazioa



# Garuna

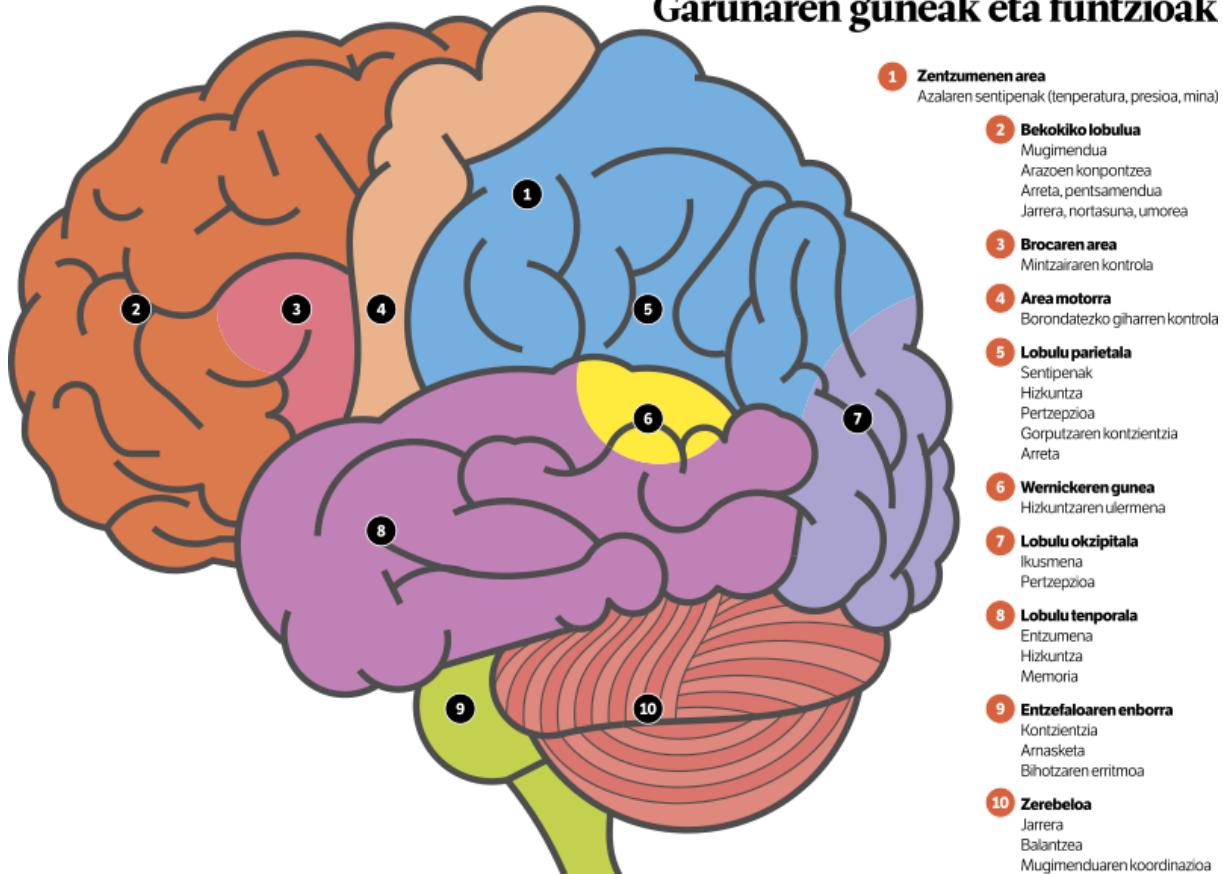
- 3D

(brainfacts.org)



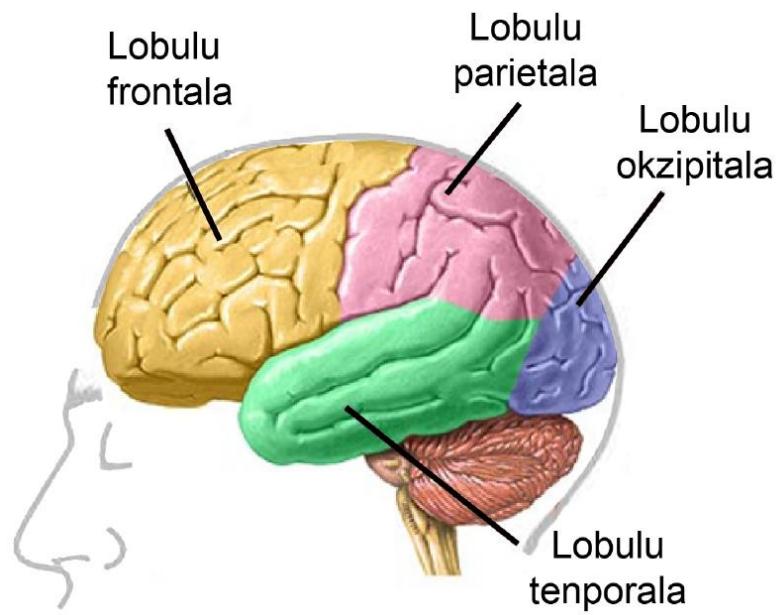
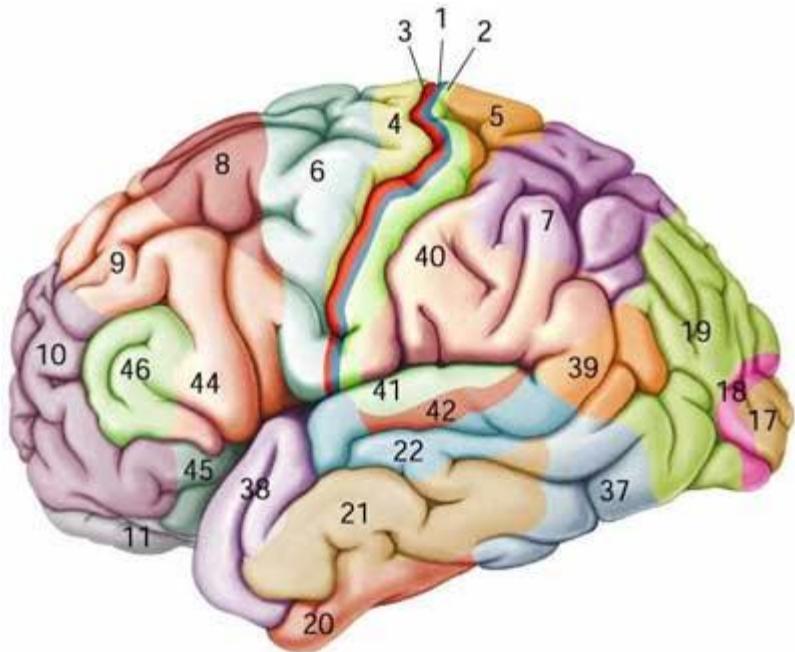
# Garuna

## Garunaren guneak eta funtzoak

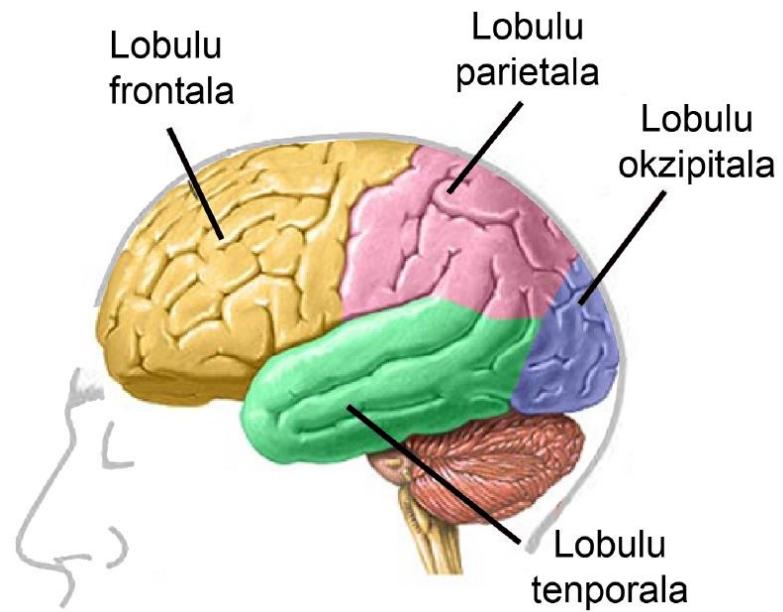
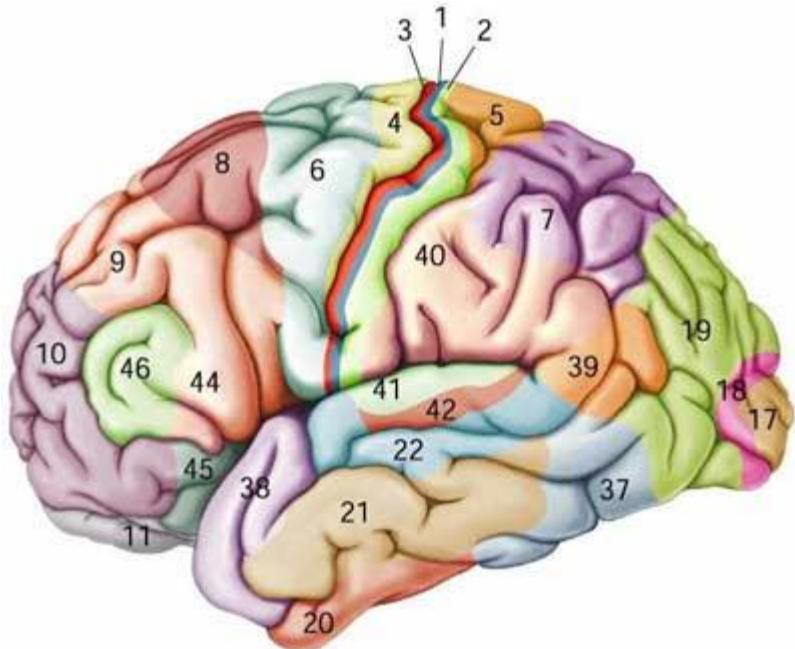


Iturria: [https://www.berria.eus/paperekoa/1833/038/001/2015-03-11/garuna\\_garenaren\\_muin.htm](https://www.berria.eus/paperekoa/1833/038/001/2015-03-11/garuna_garenaren_muin.htm)

# Garuna



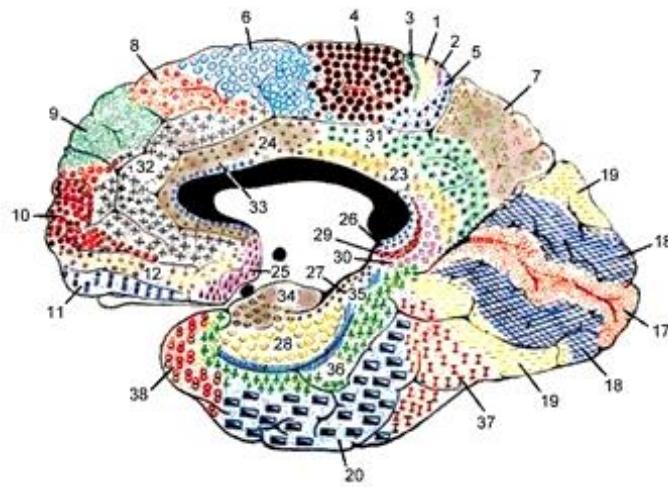
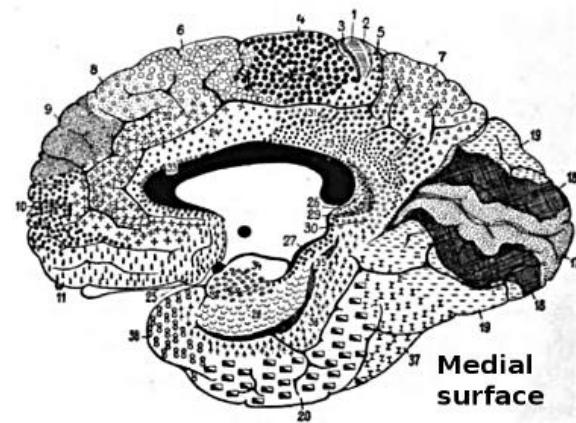
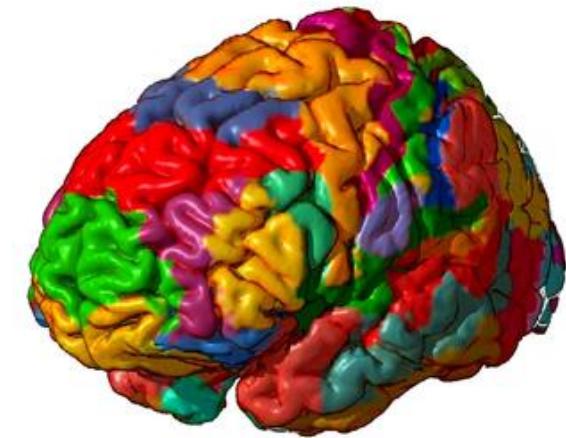
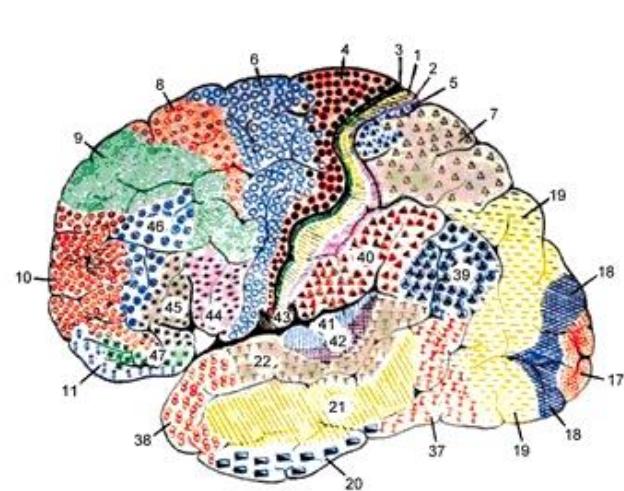
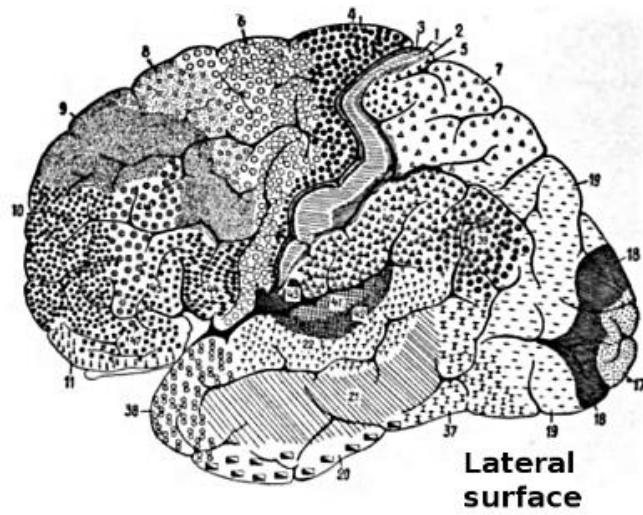
# Garuna



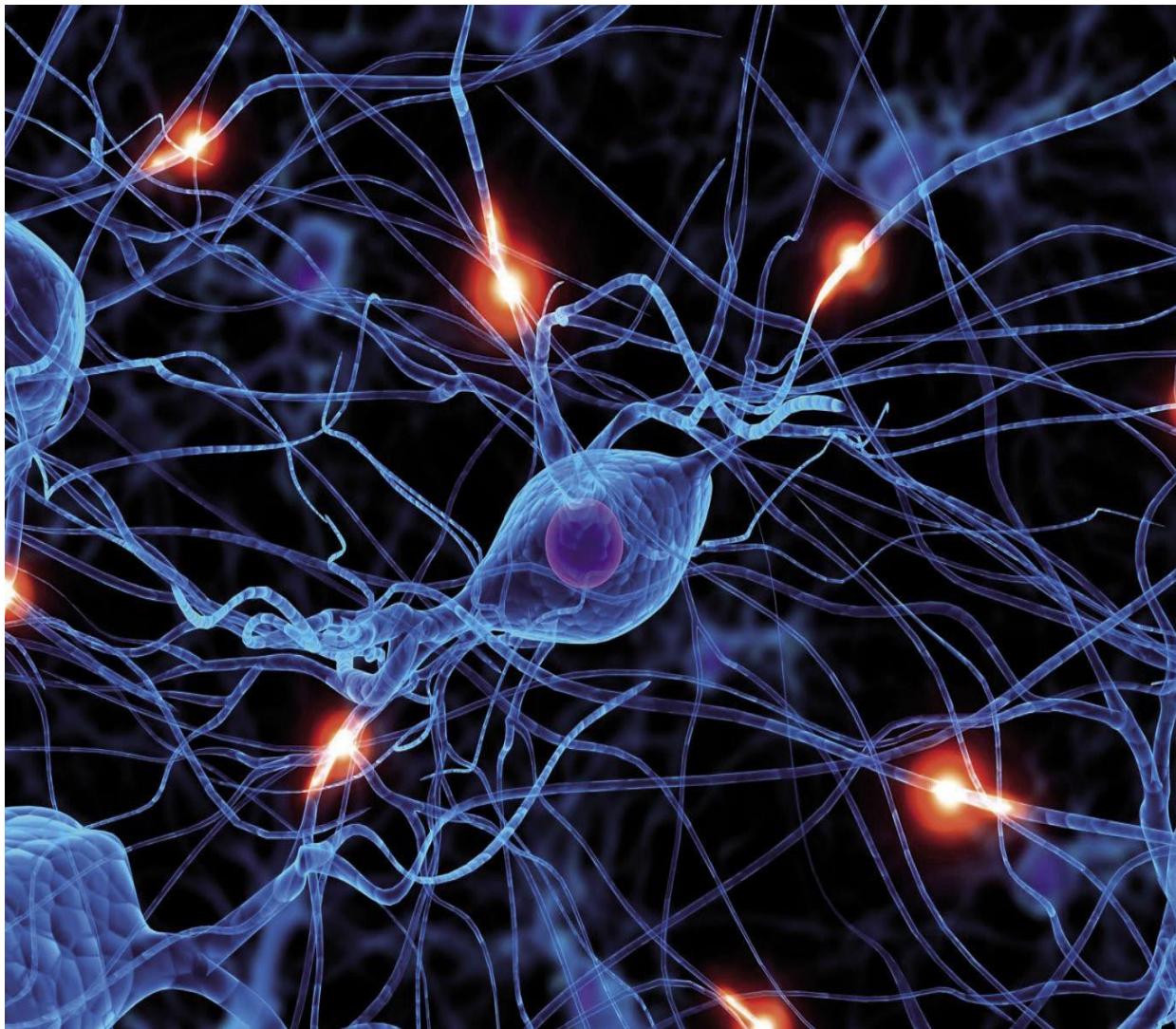
Iturria: <https://www.psicoactiva.com/blog/las-areas-brodmann-localizacion-funcion/>

Iturria: <https://www.educacion.navarra.es/documents/27590/843587/1608301+Competencia+cient%C3%ADfica+-+ESO2+Eusk.pdf/e3ebc0b5-c00d-4bd2-bb27-22857bff81f4>

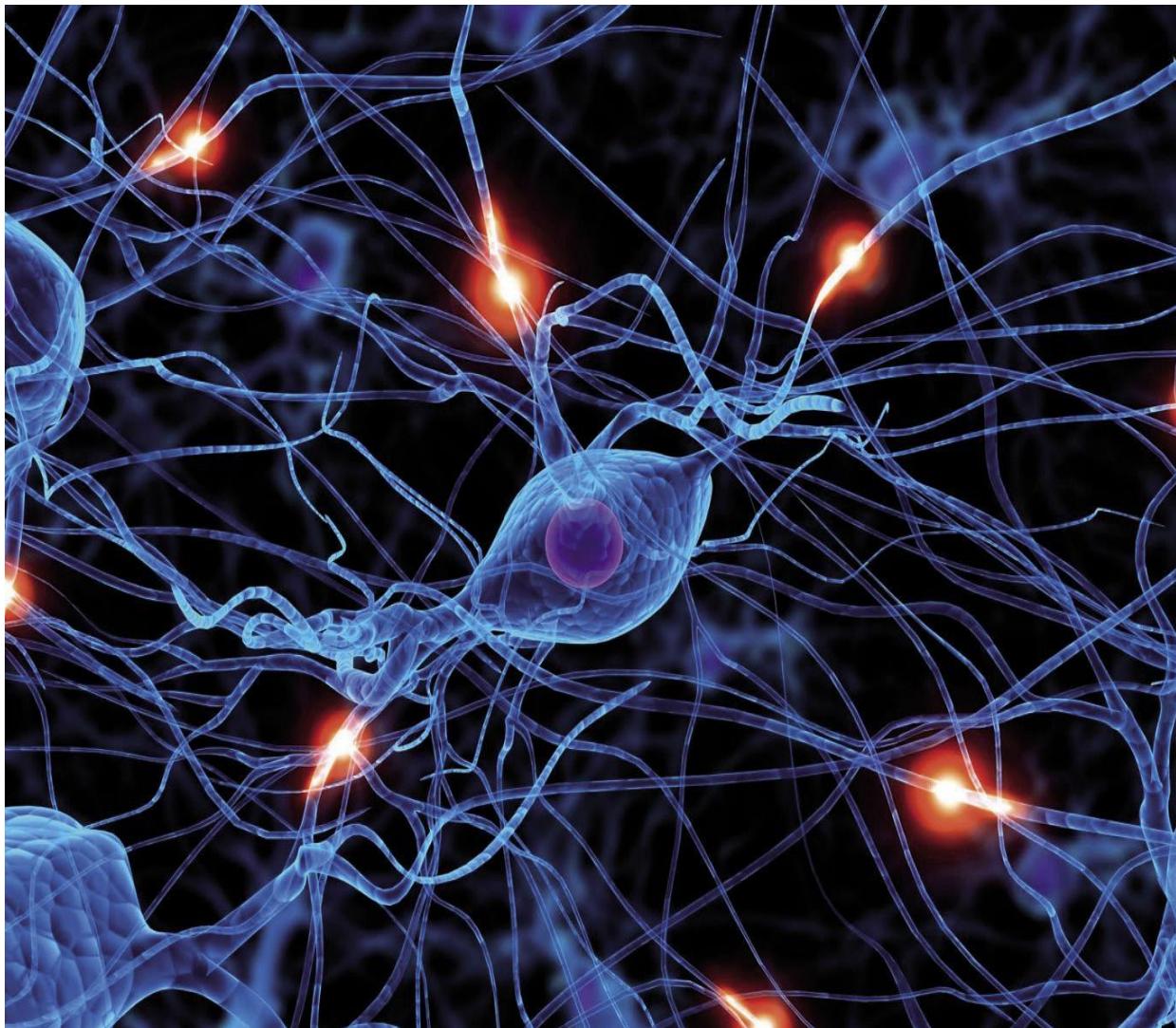
# Broadmannen eremuak



# Garunaren funtzionamendua

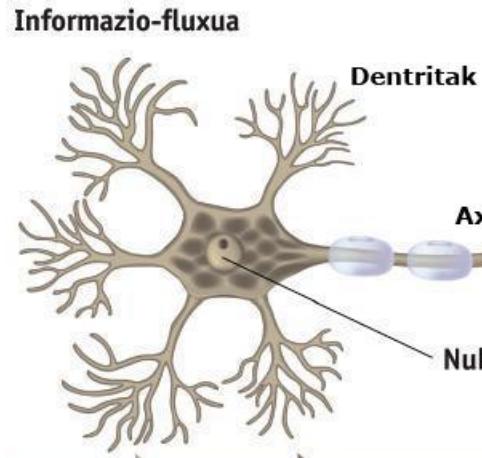


# Garunaren funtzionamendua



# Garunaren funtzionamendua

- Sinapsia

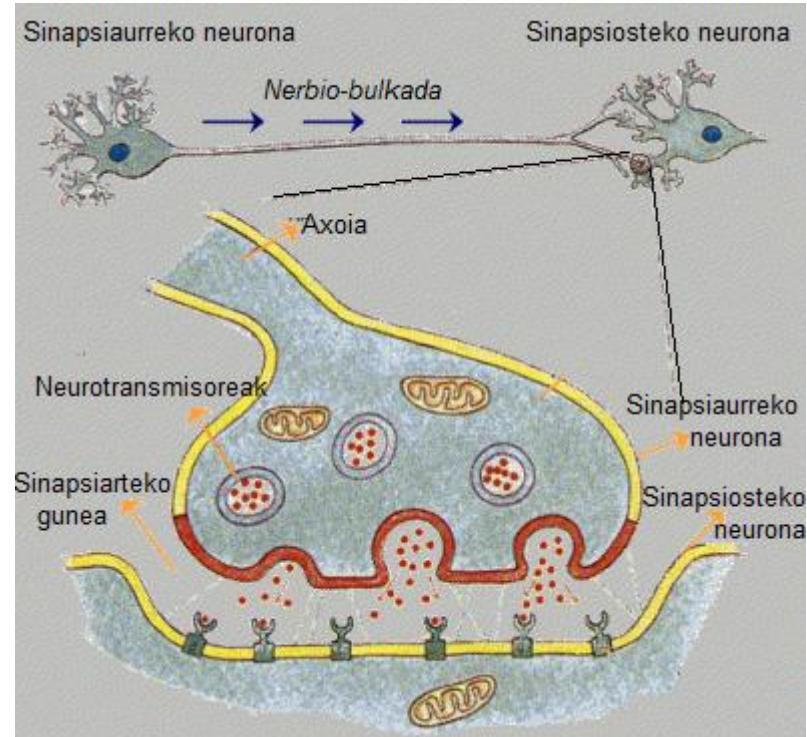


**Dendritak:**  
Seinale elektrikoak bildu

**Gorputza:**  
Seinaleak integratu eta irteera-seinalea bidali axoira

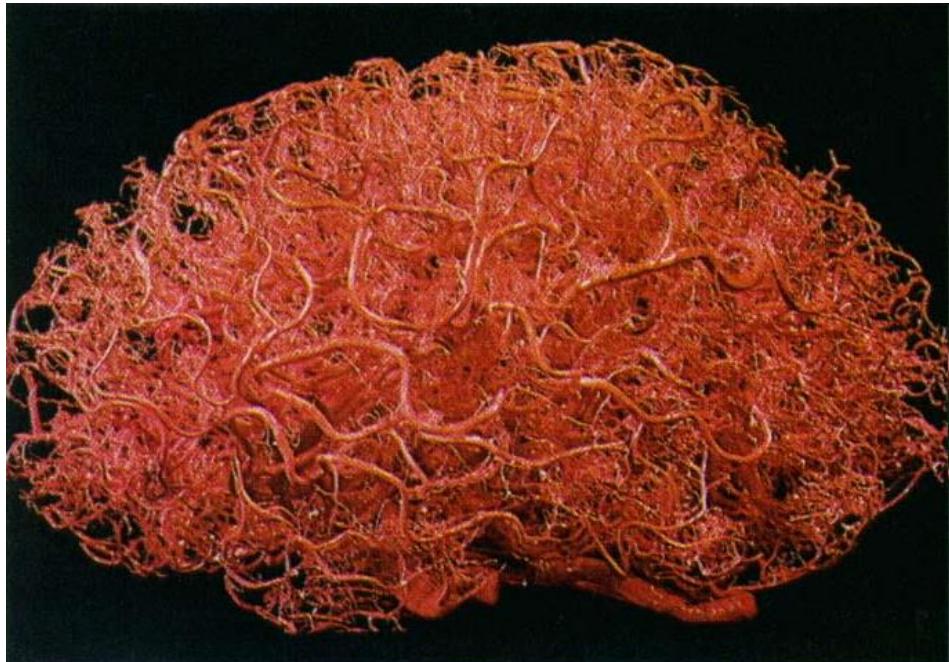
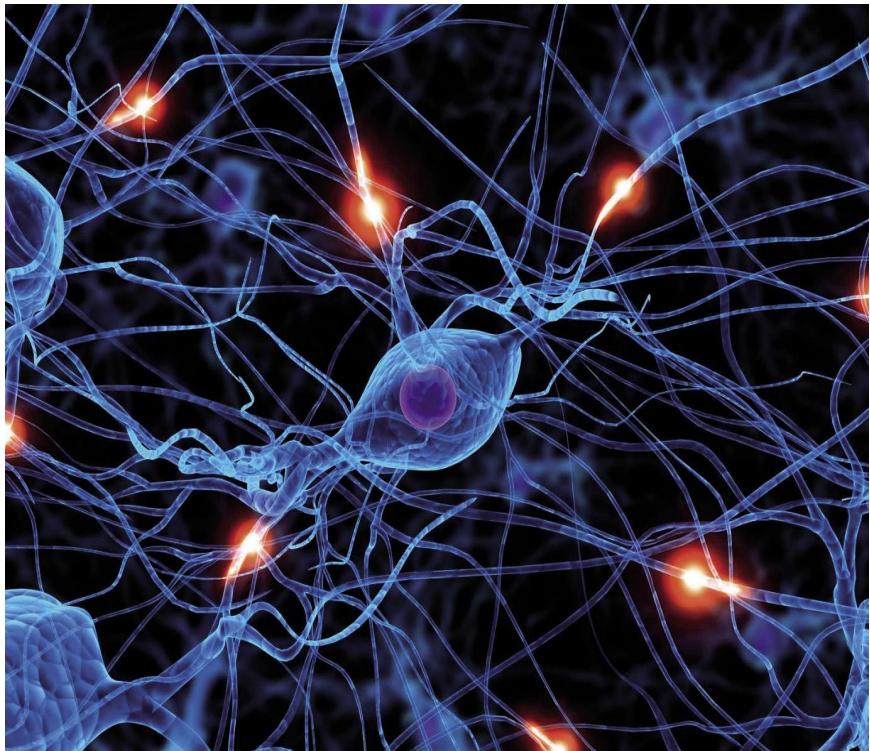
**Axoia:**  
Seinale elektrikoa beste neuronetako dendrietara hedatu

## Axoi terminalak



# Garunaren funtzionamendua

- Sare neuronalak



# Oinarrizko bibliografia

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- Ward, J. (2015). *The student's guide to cognitive neuroscience*. Psychology Press. (2. eta 3. kap)
- Cuetos Vega, F., González Álvarez, J., & Vega Rodríguez, M. D. (2015). *Psicología del lenguaje* (No. 159.964. 3/. 4). Editorial Médica Panamericana.