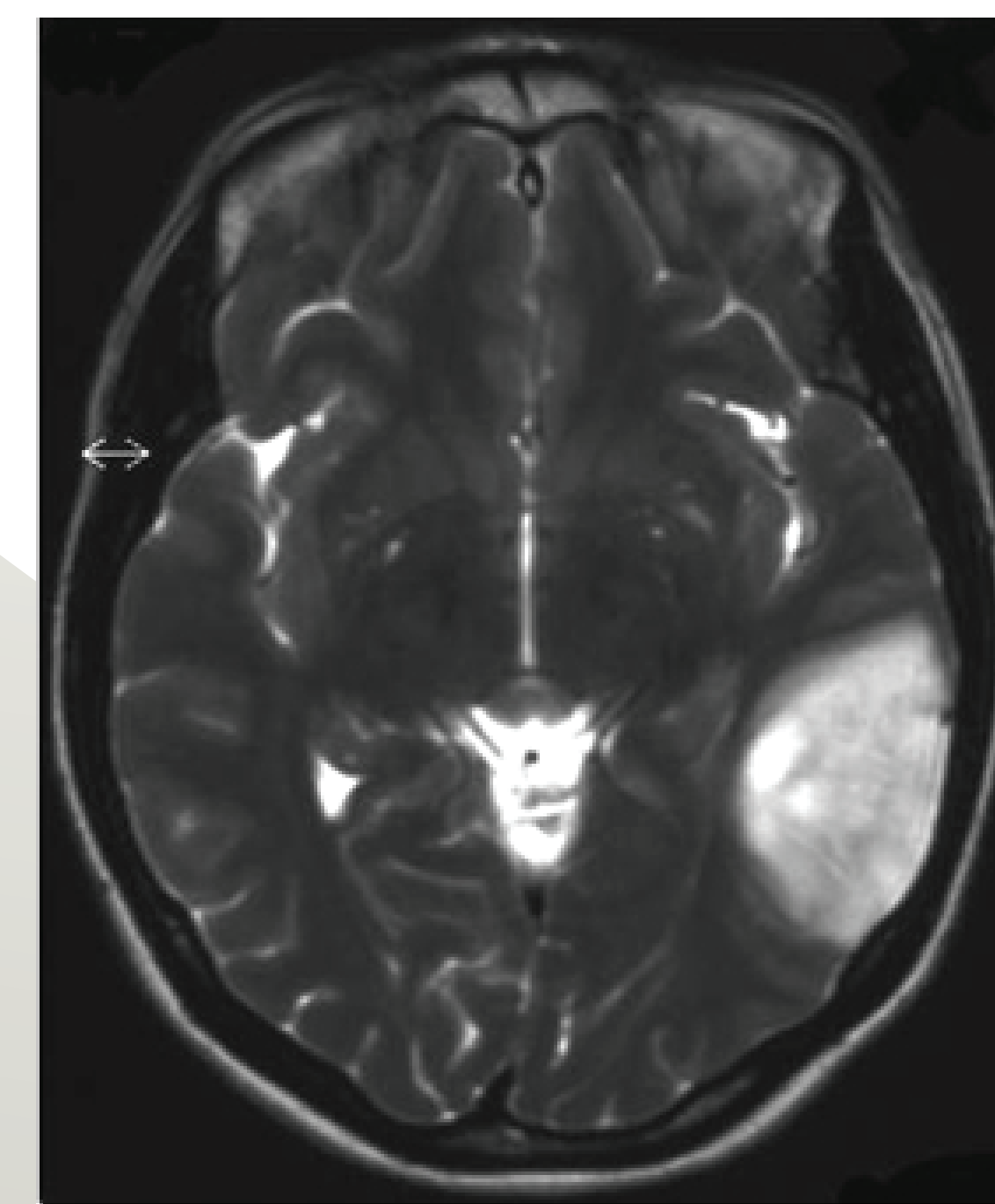
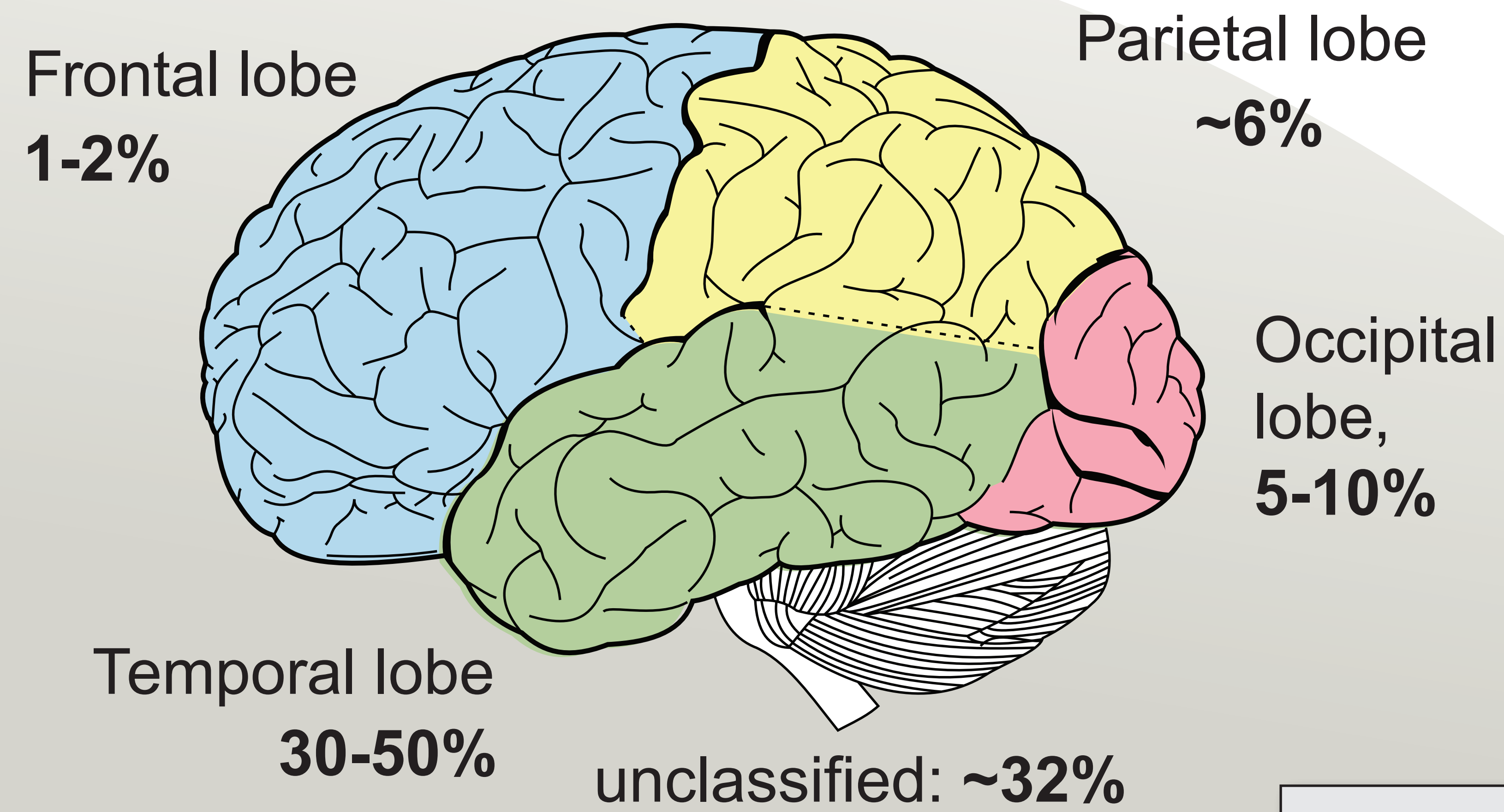
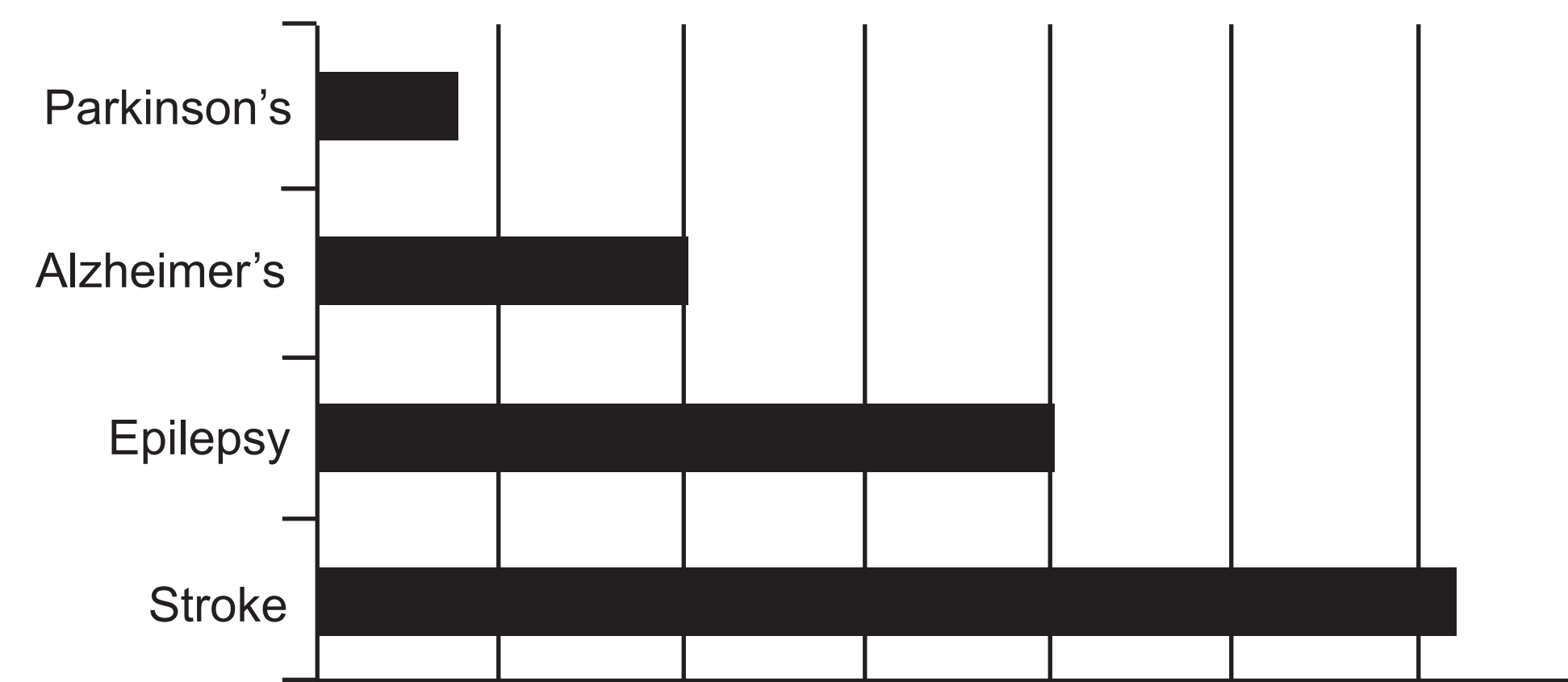
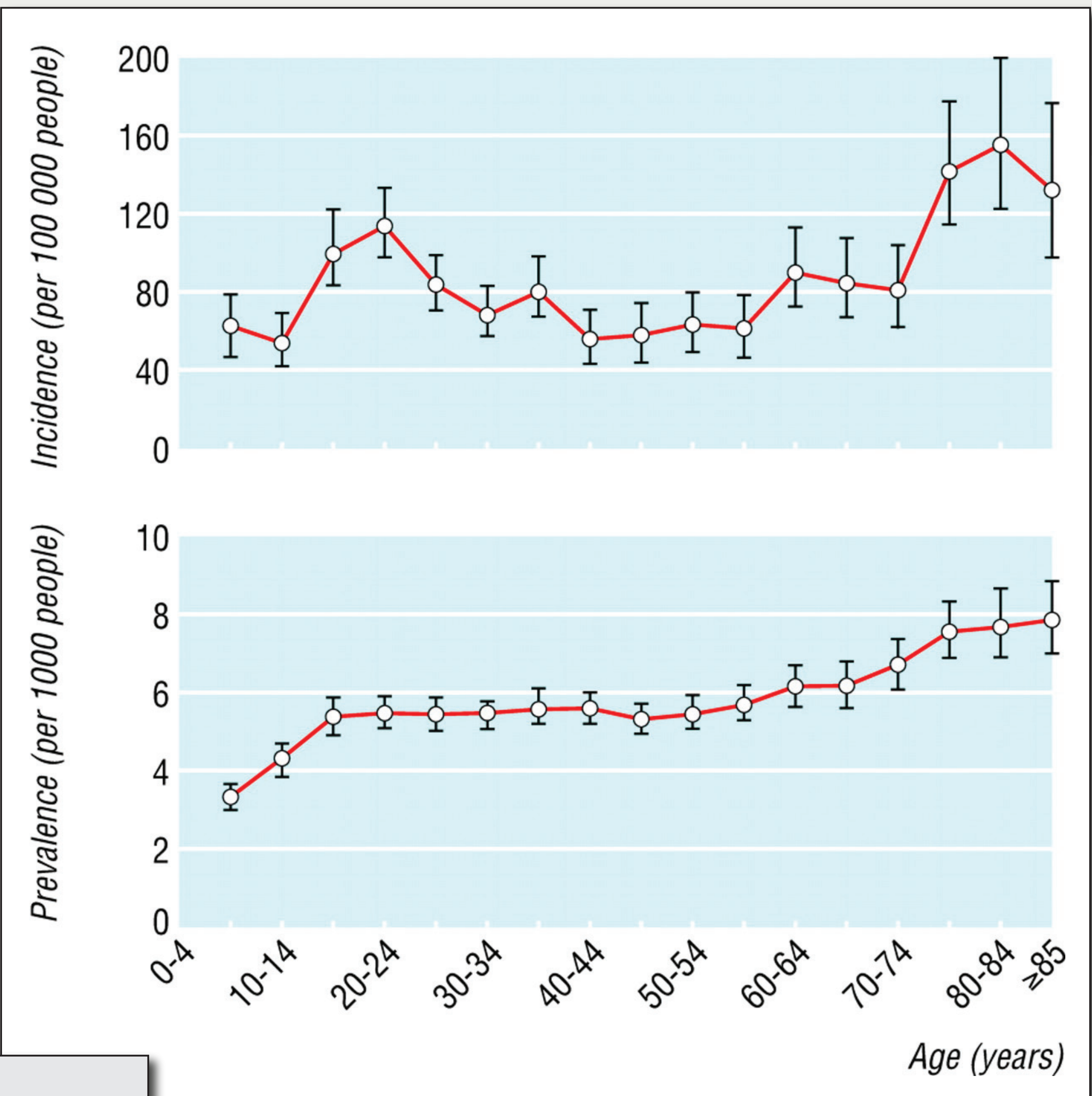


Epilepsy investigated non-invasively using Electroencephalography (EEG) and Magnetoencephalography (MEG)

INTRODUCTION: Epilepsy is a brain disorder in which a person has repeated seizures (abnormal synchronous neuronal activity in the brain, often sudden and involuntary contraction of a group of muscles and loss of consciousness) over time.



brain tumor

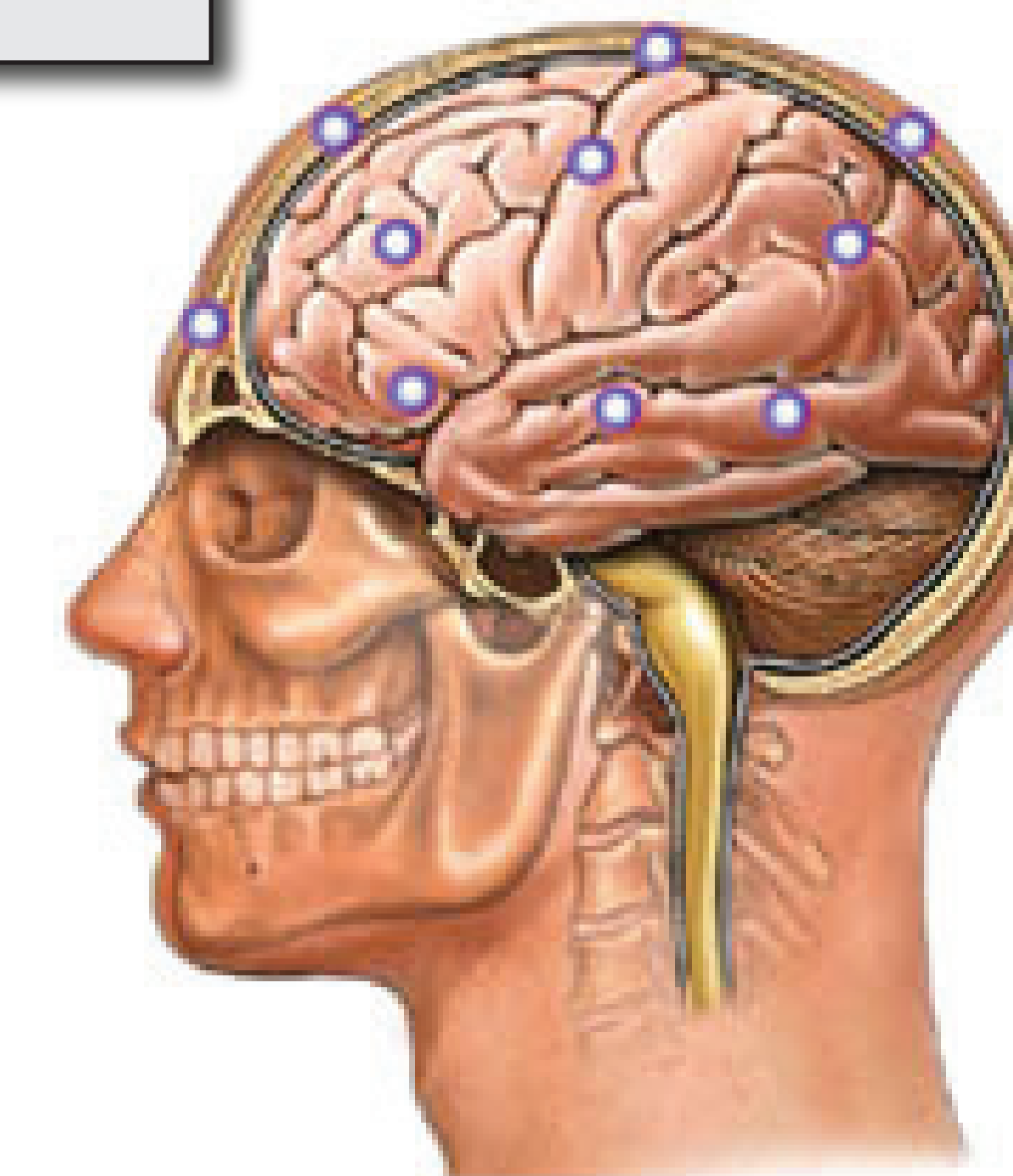
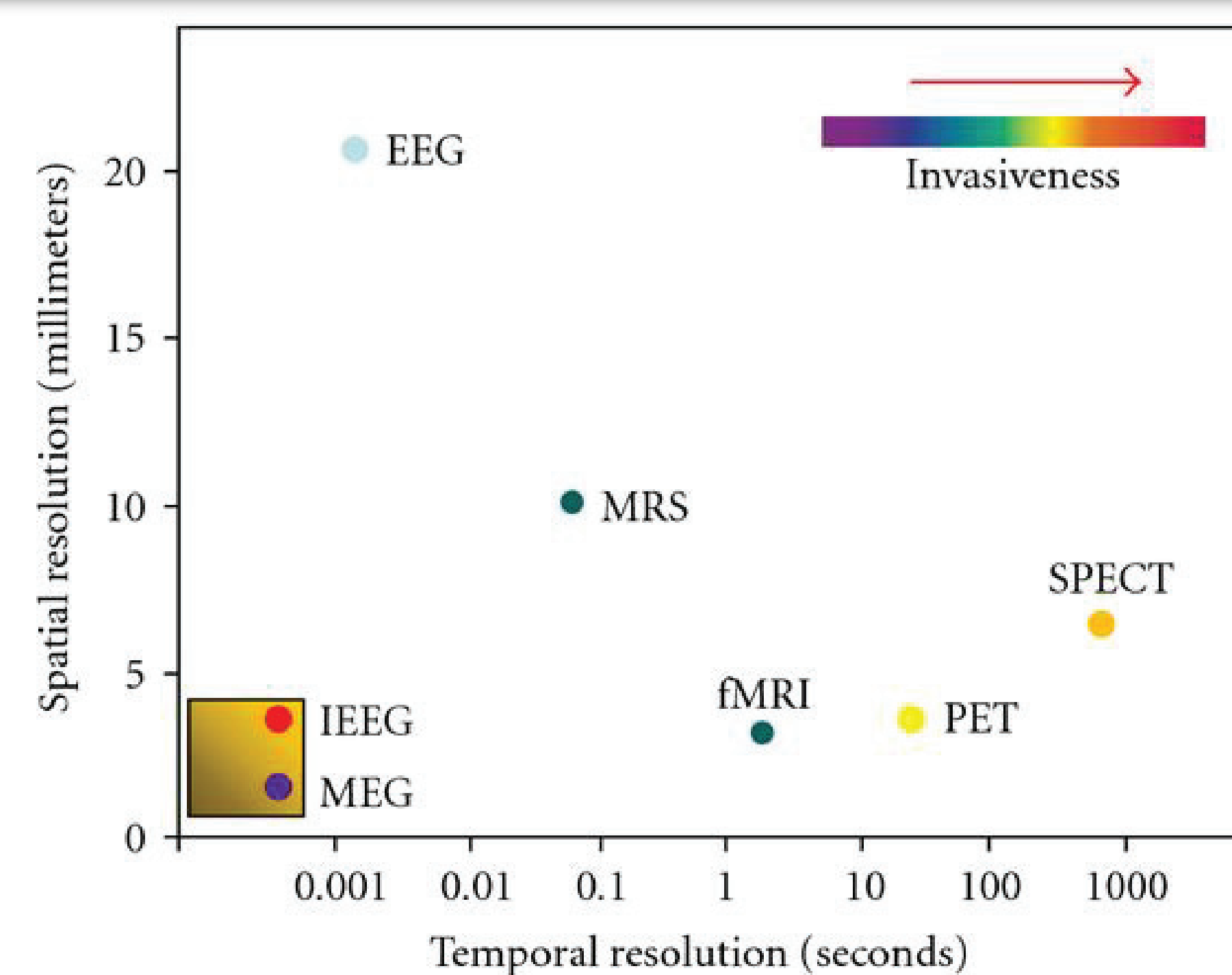
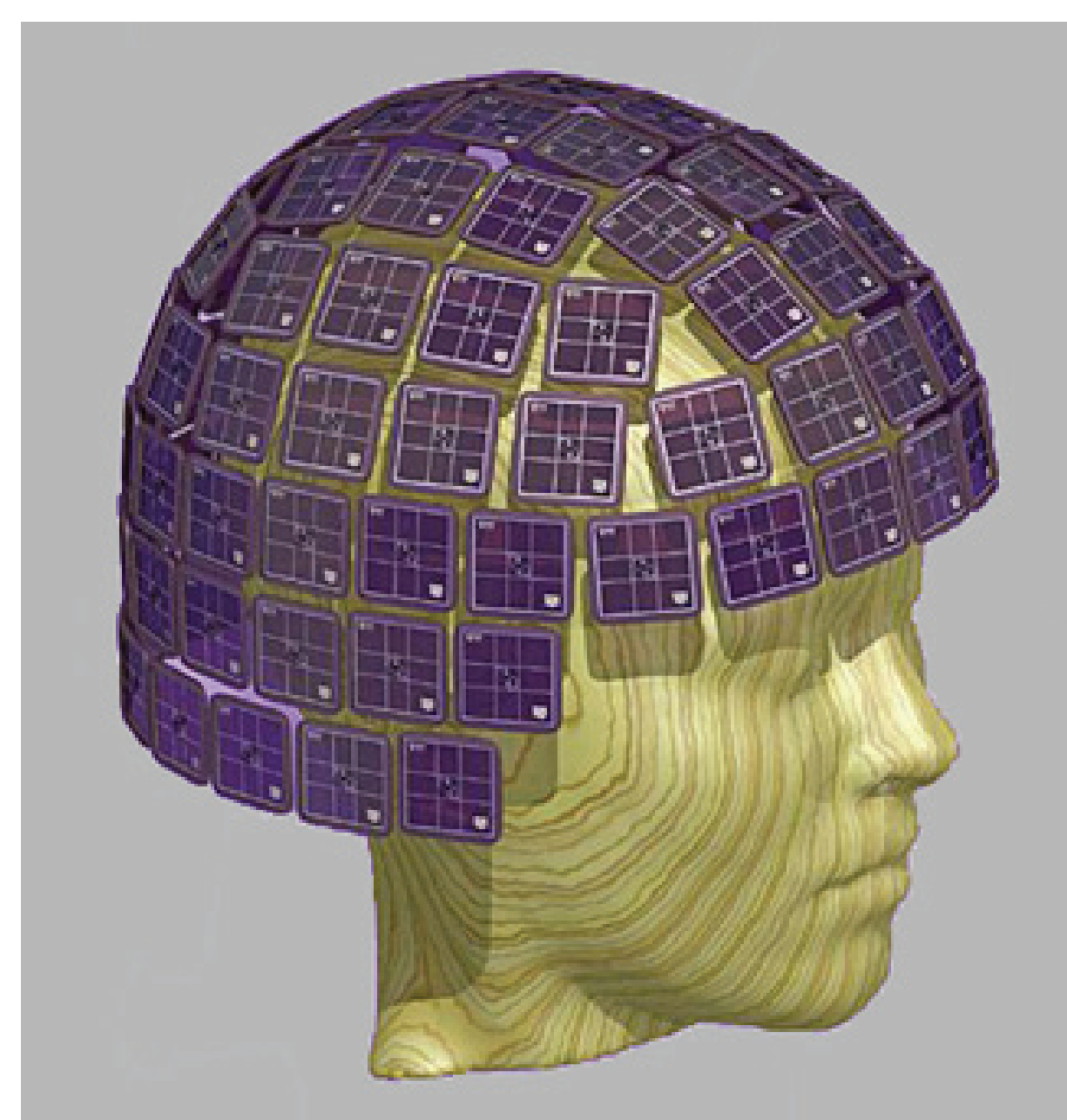


OVERALL GOAL:
Localizing epilepsy for surgery planning [1]

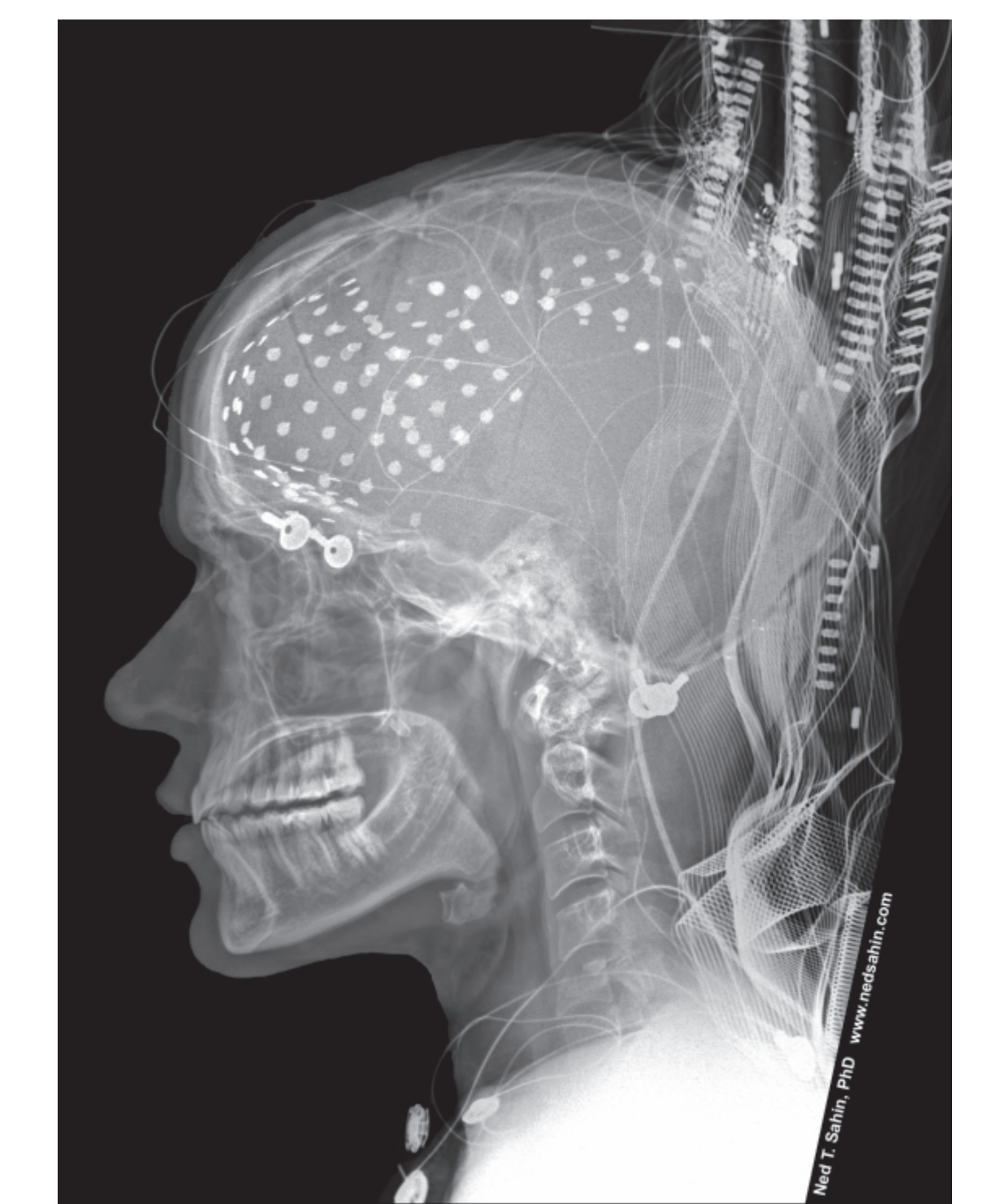
METHODS:



Magnetoencephalography (MEG)



Electroencephalography (EEG)



intracranial EEG (IEEG)



[1] Rullmann, M., Anwender, A., Dannhauer, M., Warnefeld, S. K., Dudy, F. H., & Wolters, C. H. EEG source analysis of epileptiform activity using a 1mm anisotropic hexahedra finite element head model. *NeuroImage*, 44, 399-410