

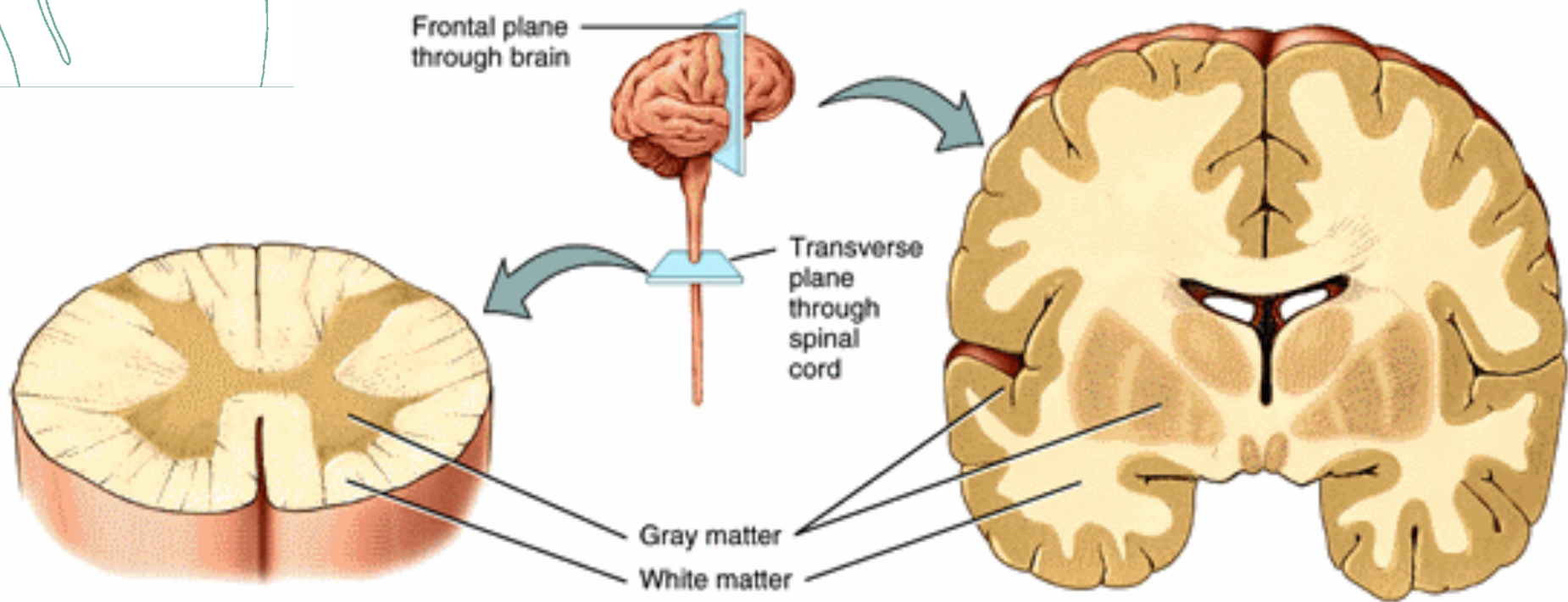
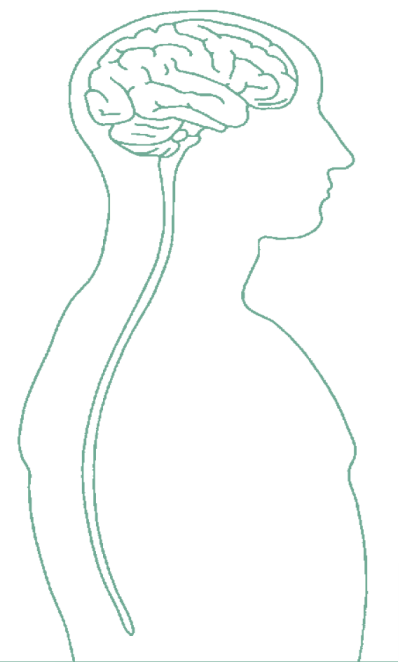


**ELL788:** Lecture 5, Date: 17-08-2016

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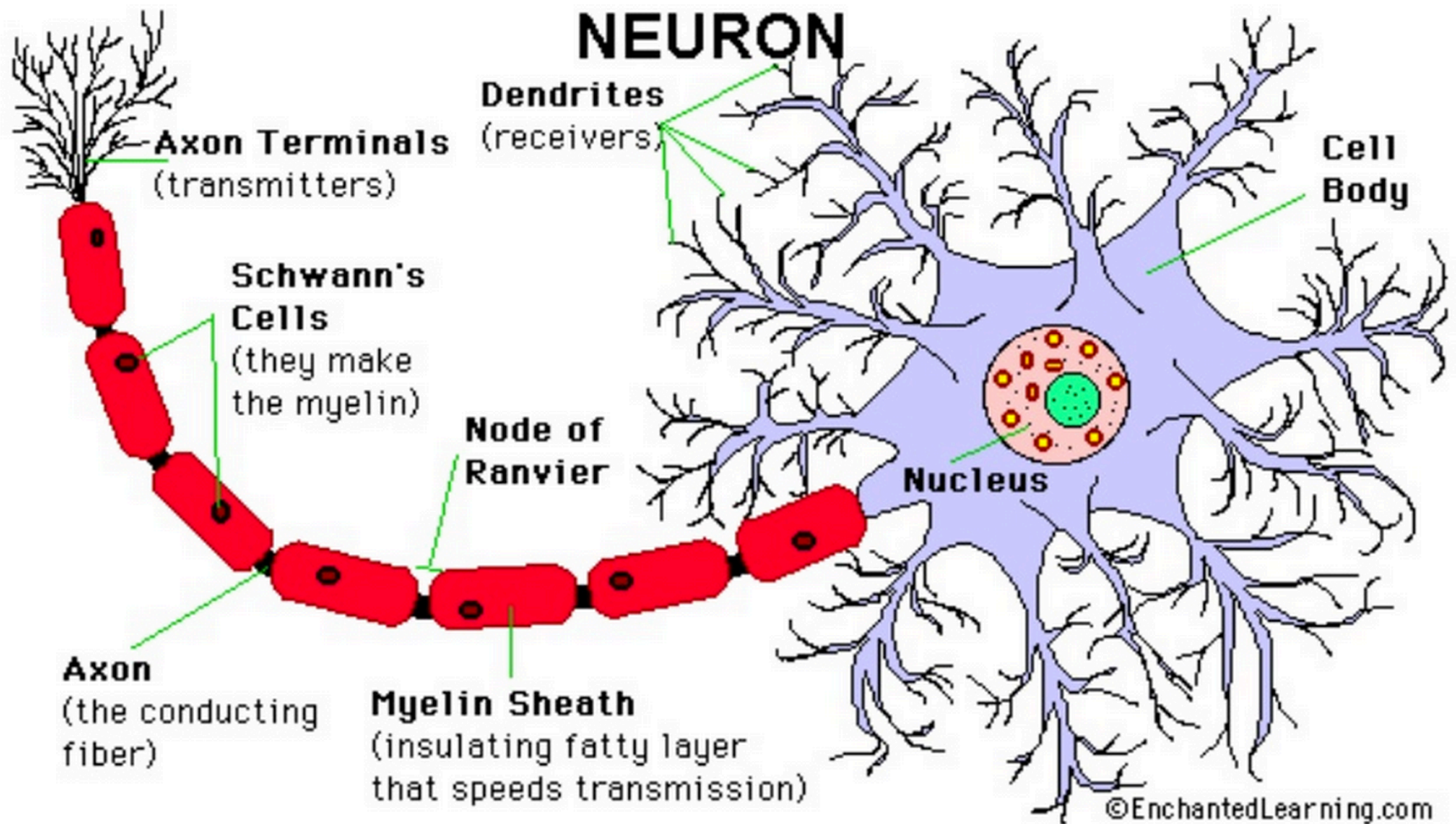
[Instructor: TKG](#)

# Anatomy and Functional Areas of the Brain

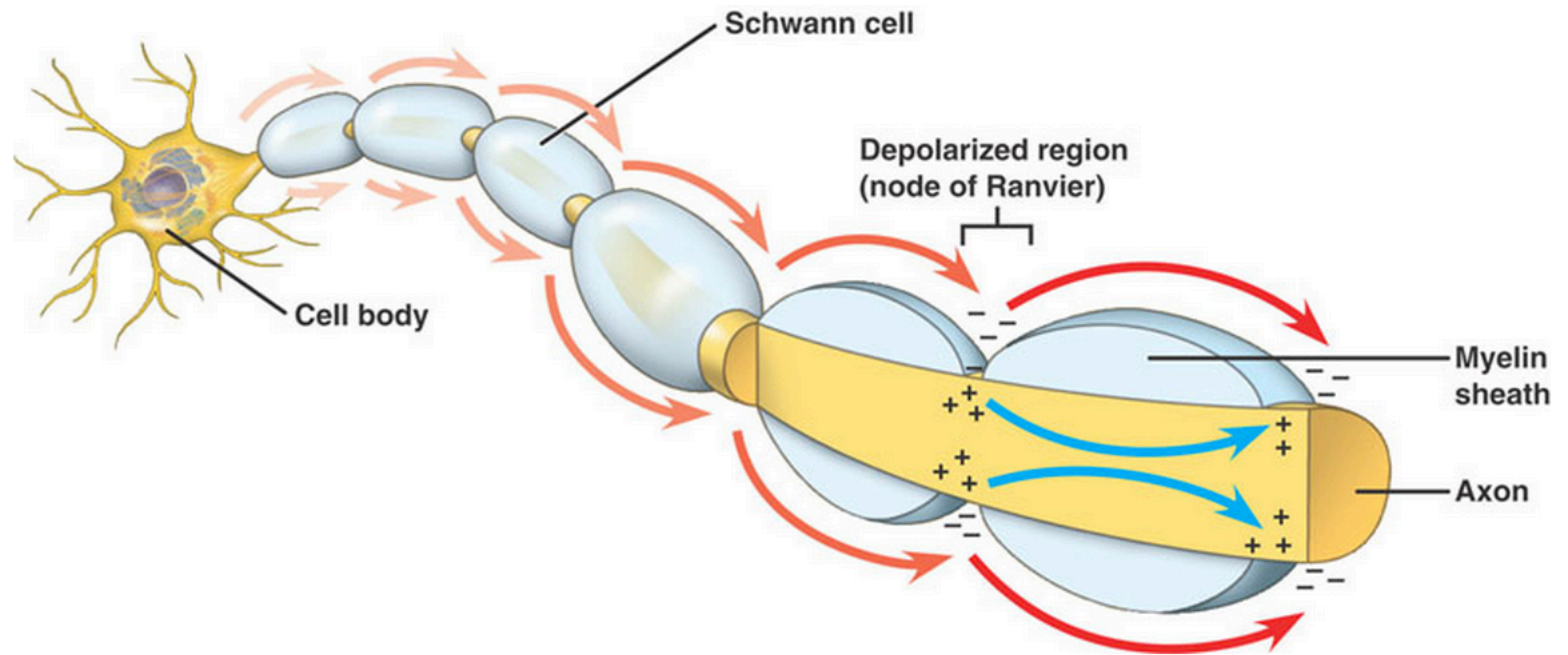


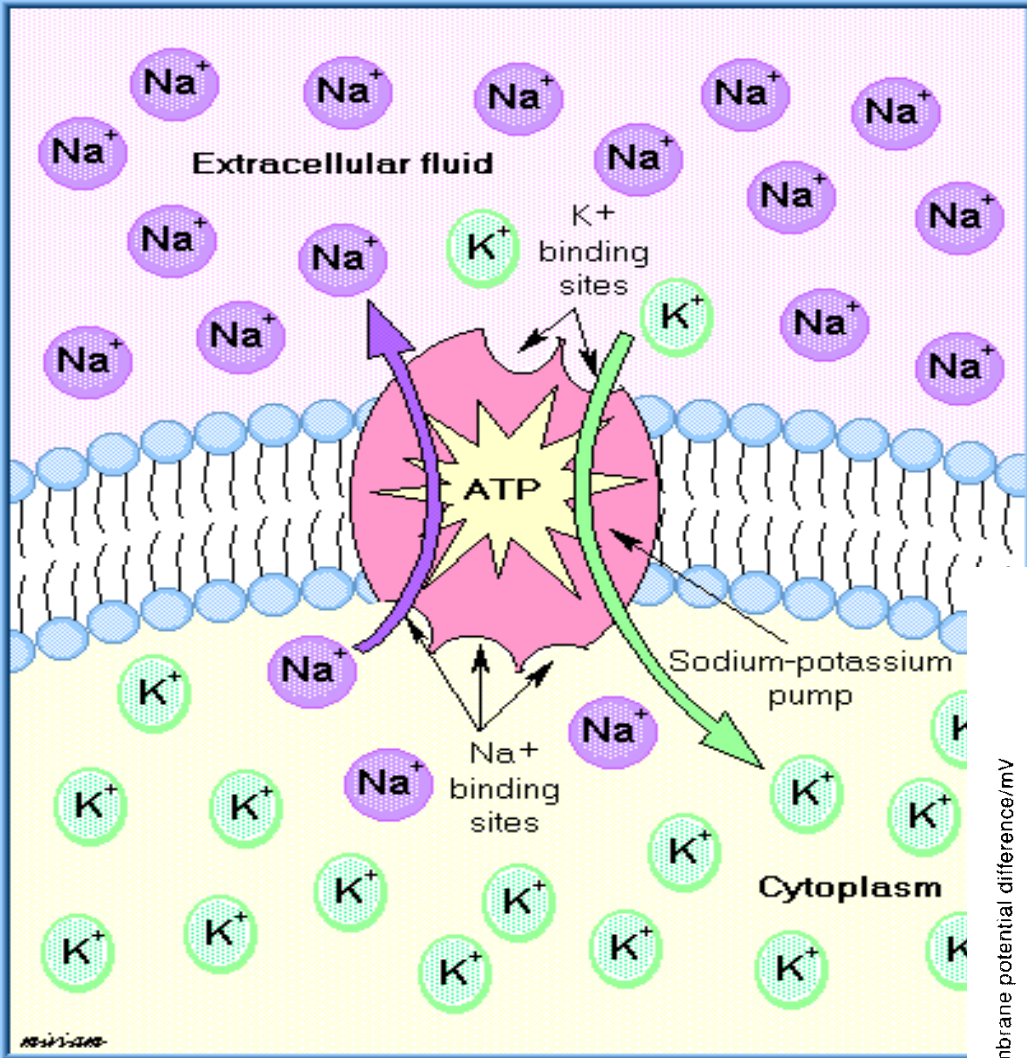
(a) Transverse section of spinal cord

(b) Frontal section of brain

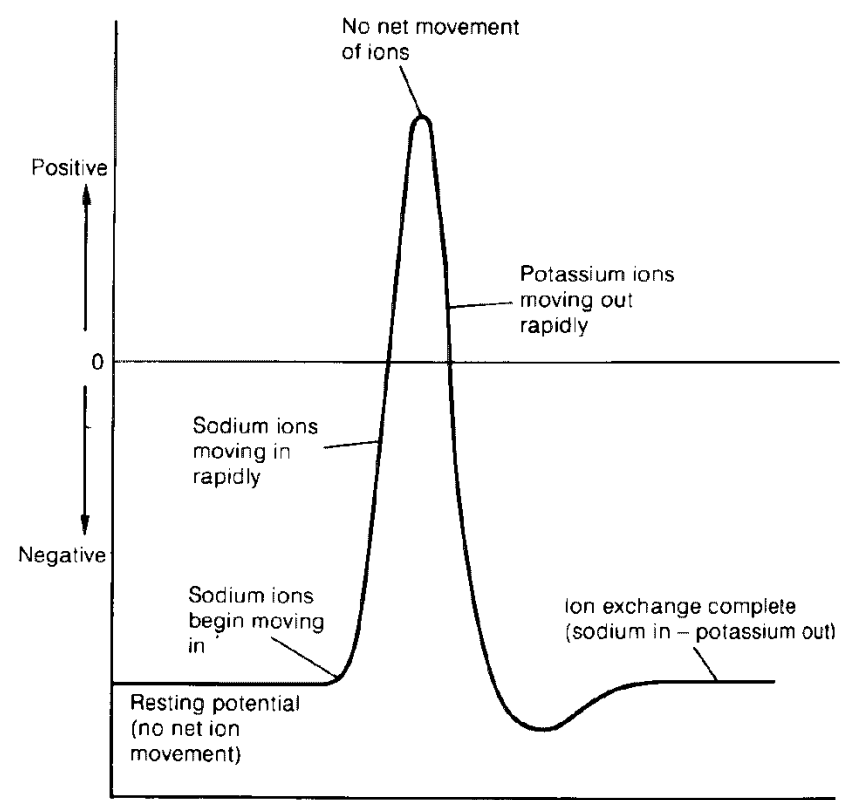


**Cell Body+ 2 sets of Processes (Axons, Dendrites)**



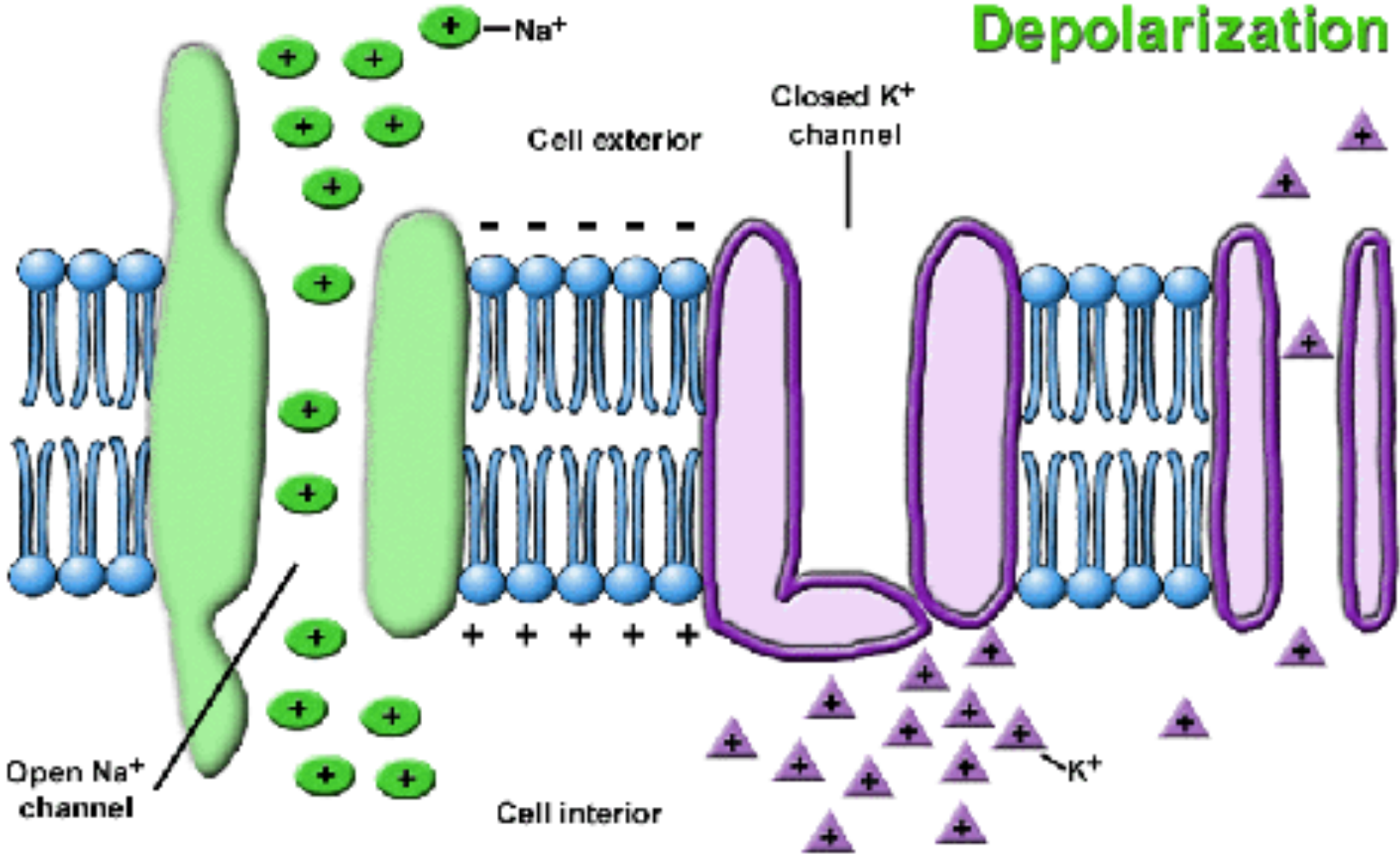


Membrane potential difference/mV

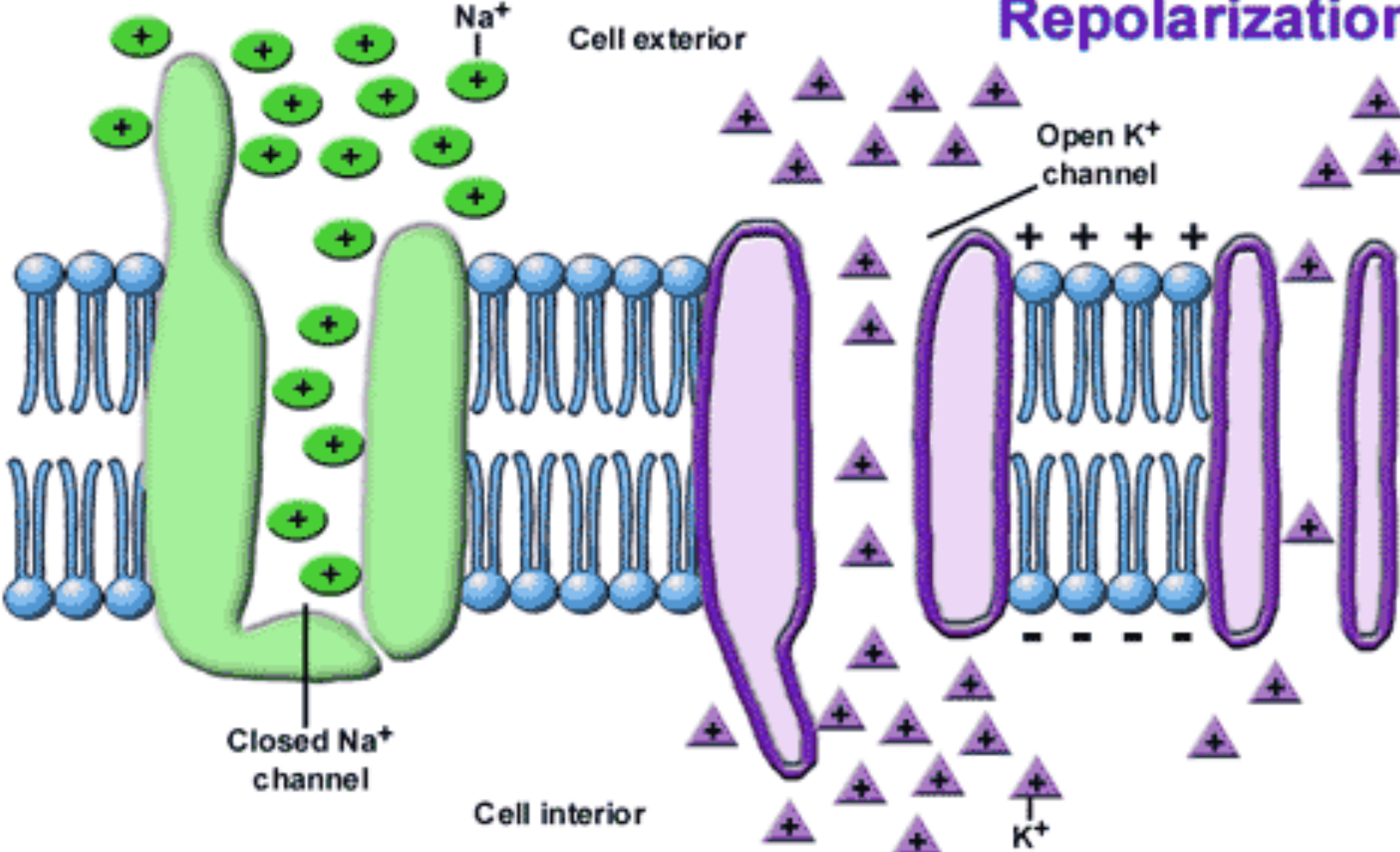


*Ion movements during an action potential*

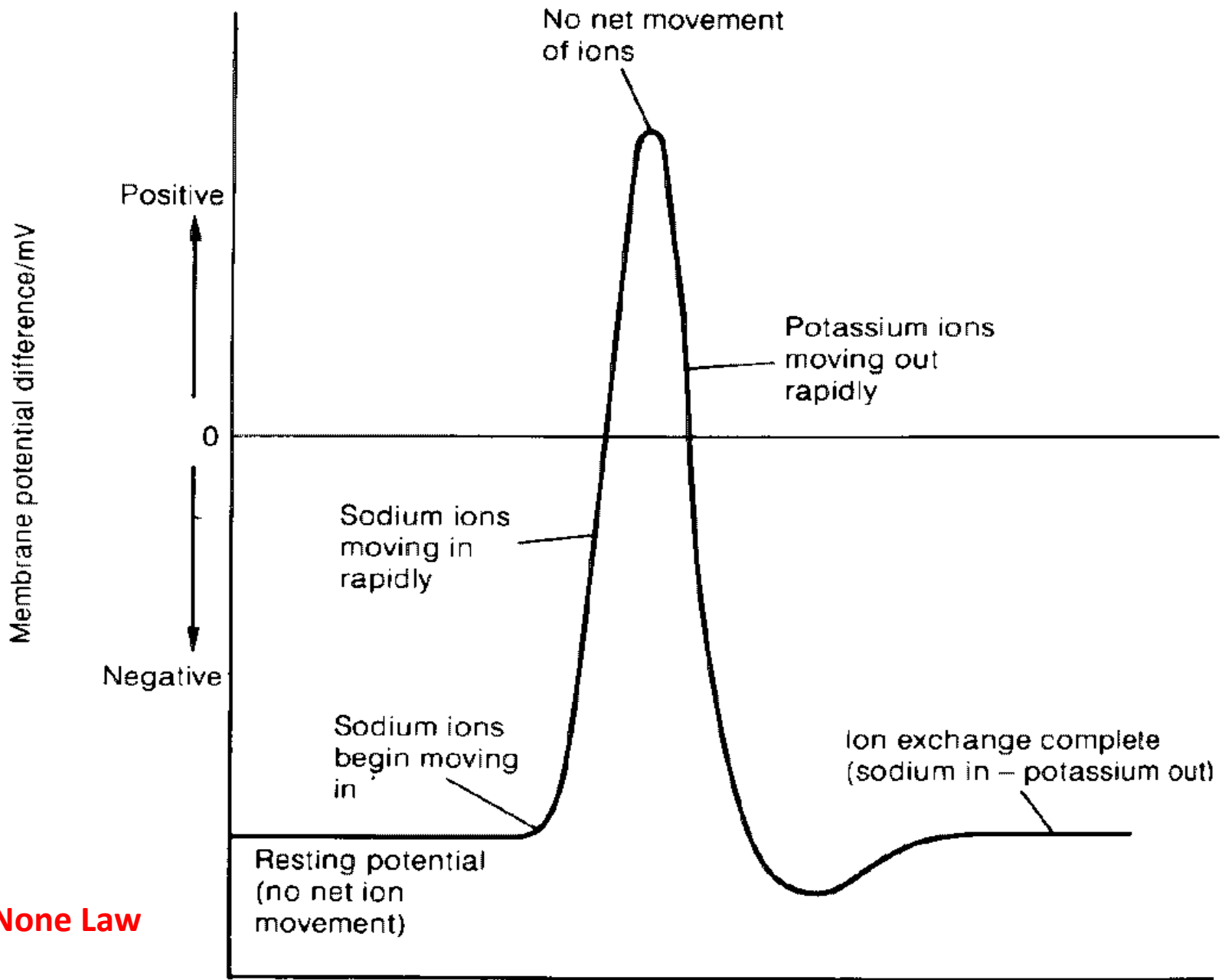
# Depolarization



# Repolarization





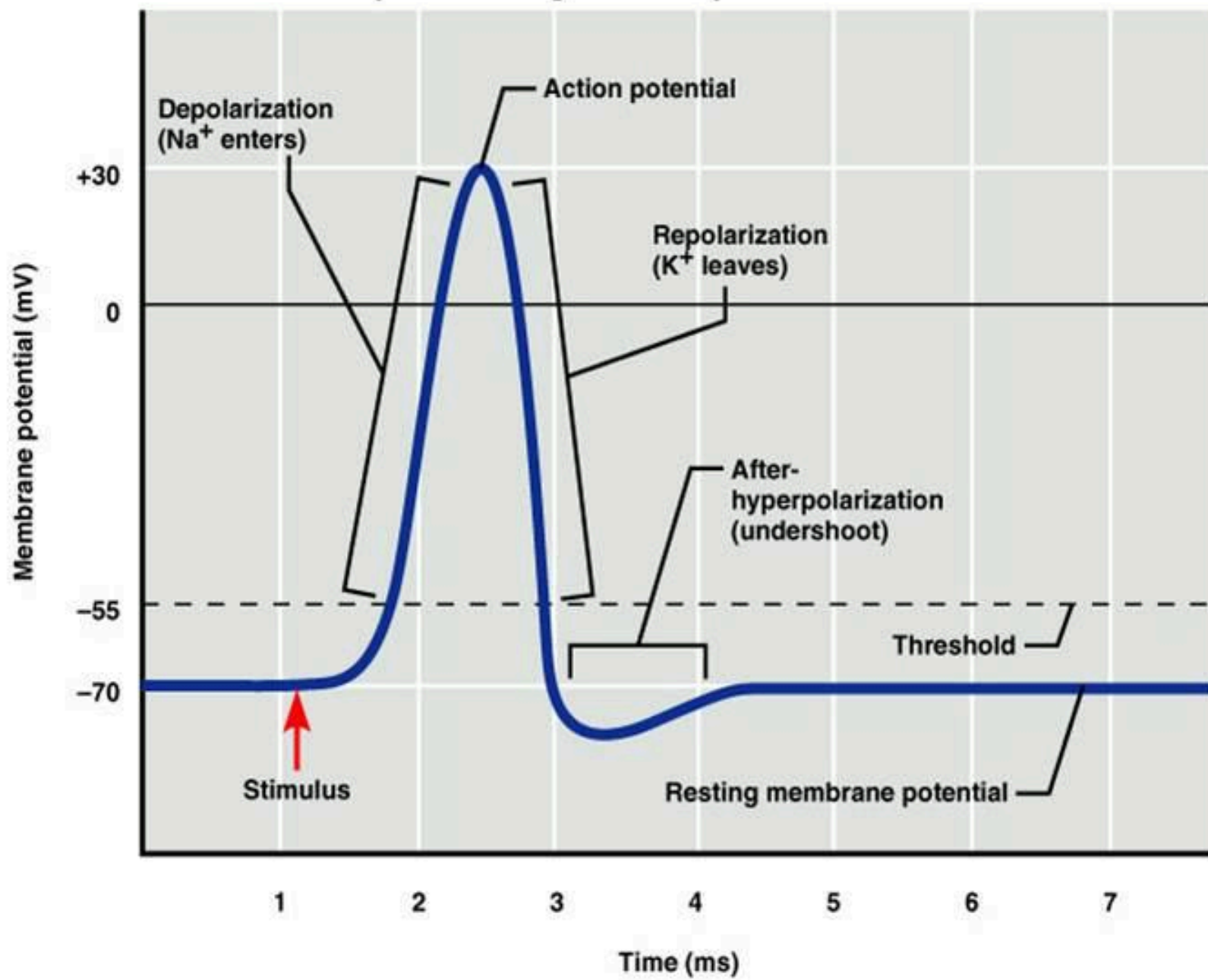


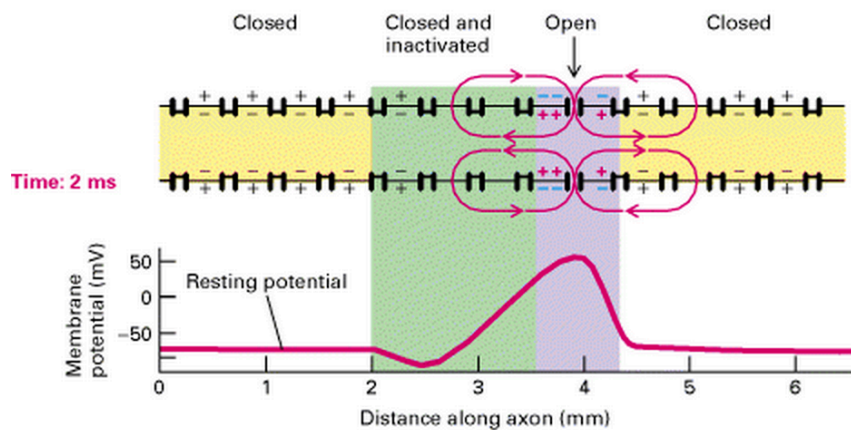
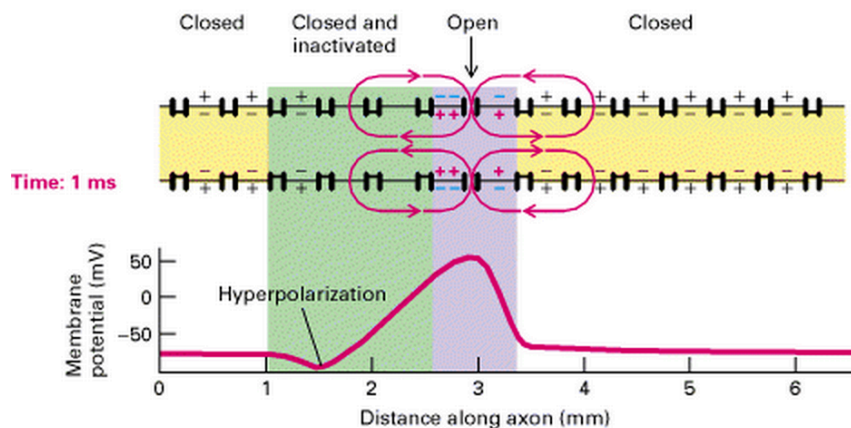
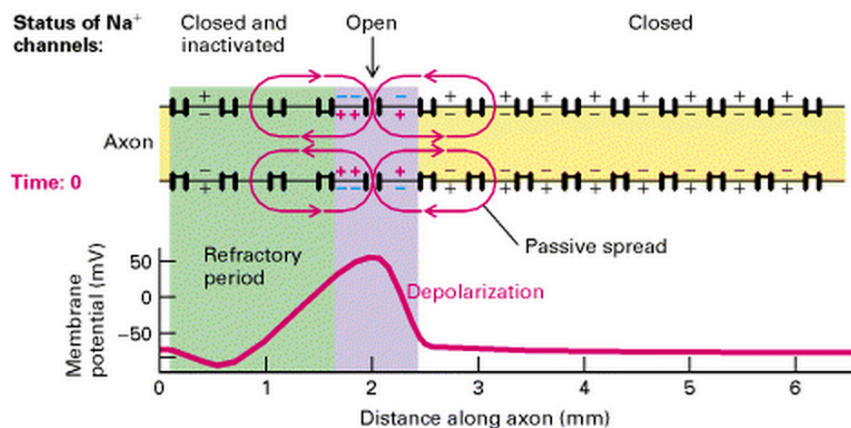
**All-or-None Law**

*Ion movements during an action potential*

**Absolute refractory period**

**Relative refractory period**





# NEURAL TRANSMISSION

## RESPONSE TO ENVIRONMENTAL STIMULI

CLICK TO BEGIN.



**Mc**  
Graw  
How does the pain you experience when you burn your hand result so quickly in an action by your muscles?



"Whoa! That was a good one! Try it, Hobbs—just poke his brain right where my finger is."

Copyright: Gary Larson

Q: Assuming this comical situation was factually accurate, what Cortical Region of the brain would these doctors be stimulating?

Thanks!