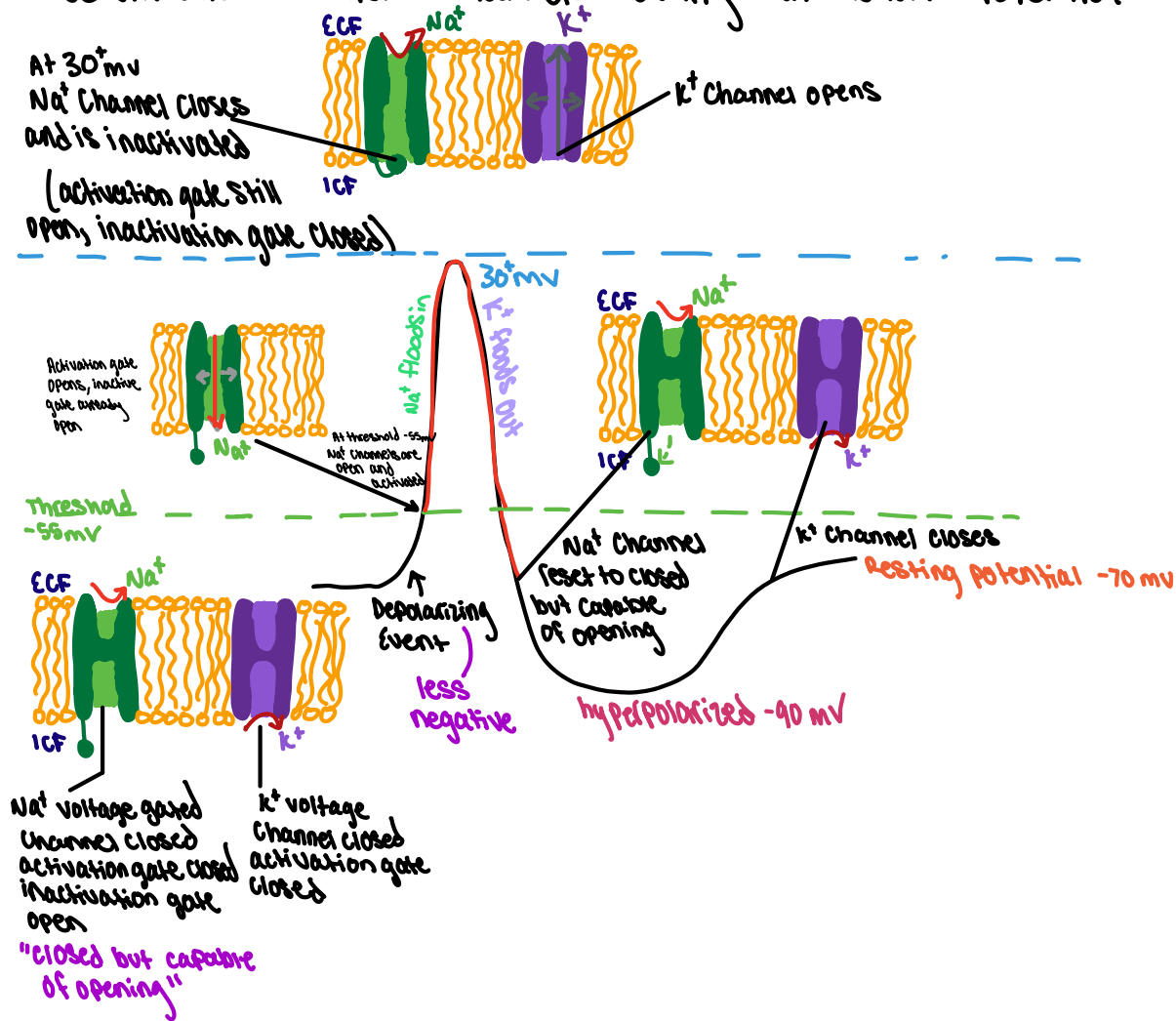
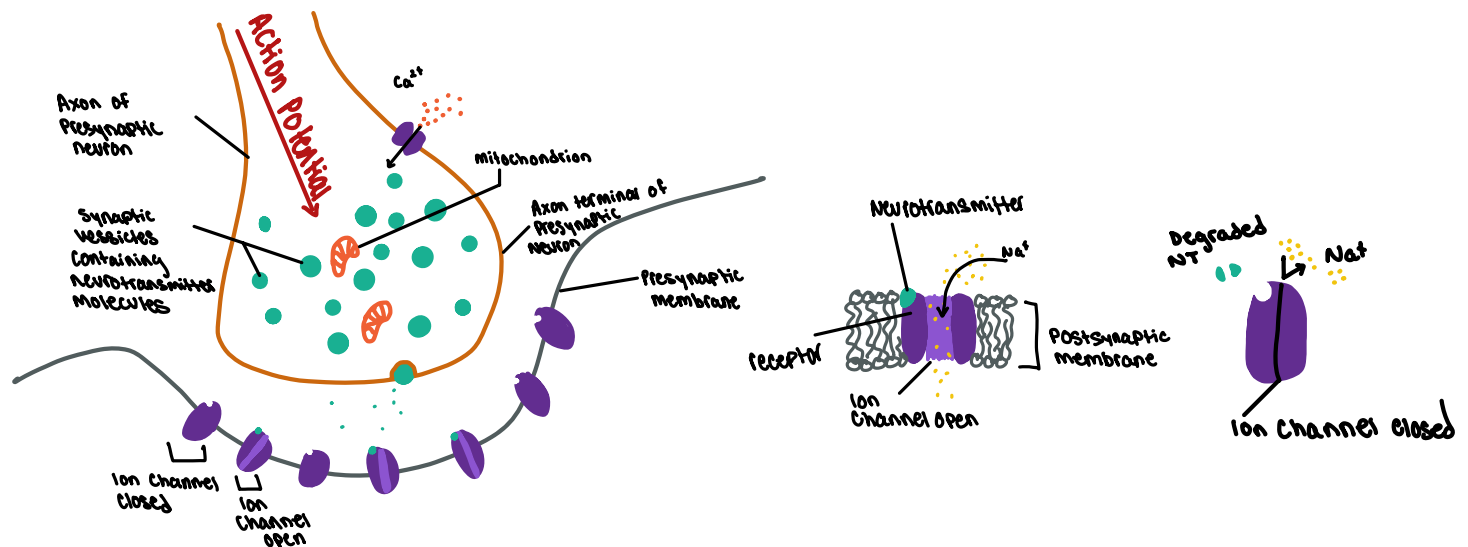


Sodium and Potassium Channels during an Action Potential



Events at the Synapse!



Neurotransmitter actions when binding

If Na^+ and K^+ channels open a small depolarization called an **excitatory post-synaptic**

Potential occurs bringing the cells closer to threshold.

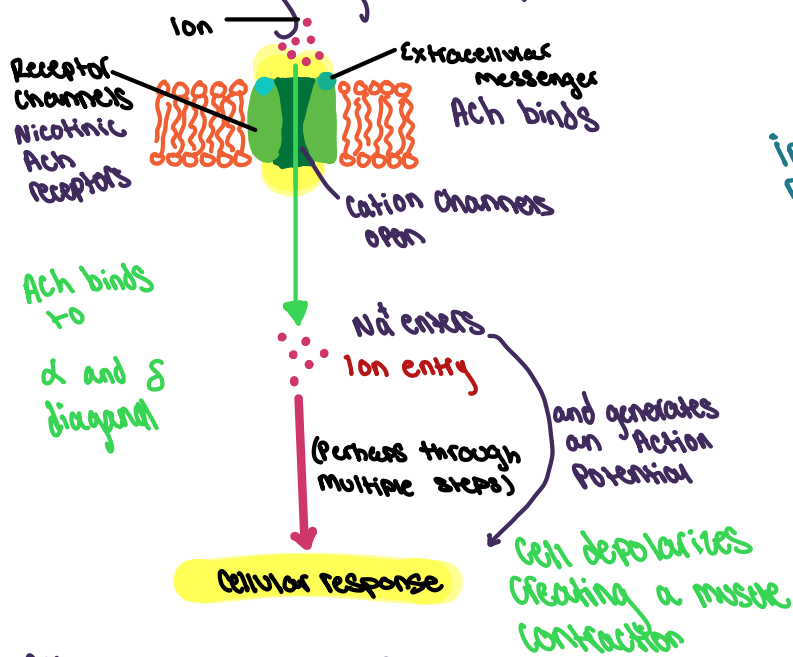
If K^+ or Cl^- channels open when a NT binds, a small hyperpolarization called an **inhibitory post-synaptic potential** occurs polarizing the cell and making it less likely to reach threshold.

Receptors Yay!

3 main actions of chemical messengers

- Opening receptor-channels
- Activating receptor-enzymes
- Activating an intracellular second messenger via G-protein-coupled receptors

Chemically gated receptor channels

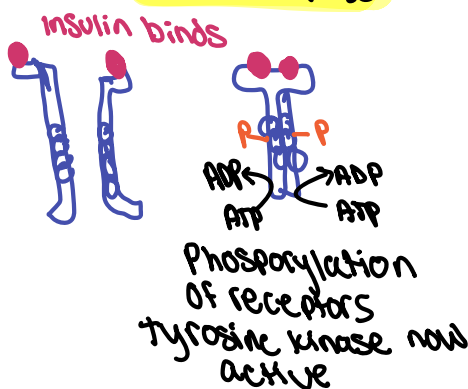
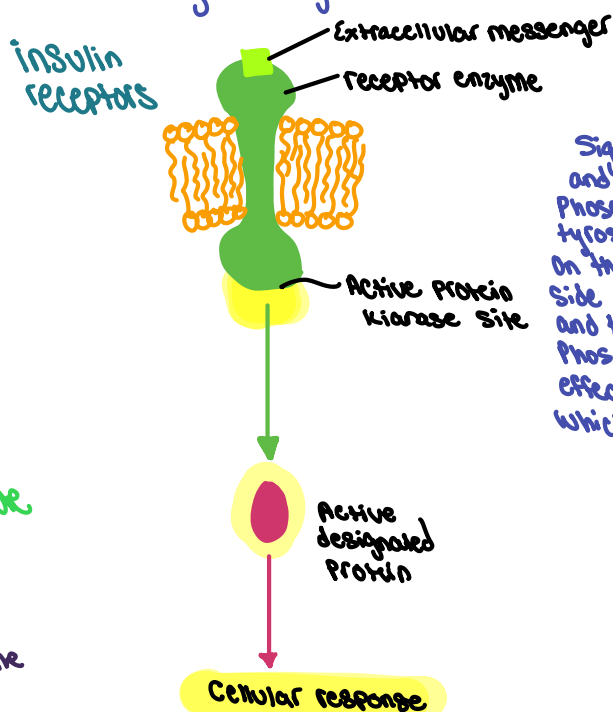


ACh receptors on muscle cells

nicotinic ACh receptor at the skeletal muscle membrane

Activating receptor-enzymes

(enzyme = tyrosine kinase)



Activating an intracellular second messengers via G-protein-coupled receptors

Super awesome receptors, Get Hyped!

