

1. Ligands bind specifically to their receptor (a protein)
 - a. _____ binds to the _____ gated ion channel.
2. The receptor communicates a message to the rest of the cell
 - a. The channel opens, _____, this changes the _____

3. The signal is amplified inside the cell.
 - a. The depolarization _____ along the axon. The depolarization _____ to the end of the neuron.
4. The signal is turned off
 - a. Acetylcholine channel _____
 - b. Acetylcholine is _____ by _____
5. The acetylcholine gated channel is ready for another signal.

For G proteins:

1. Ligand-induced conformational changes in the GPCR: spell out _____
2. Receptor-mediated stimulation of guanine nucleotide exchange: _____ leaves and _____ binds
3. Regulation of downstream effector processes by _____ complexes
4. Termination of signal
5. Receptors are often internalized by endocytosis and then moved back to the membrane by fusion of endocytotic vesicles and the membrane

For Gs proteins,

GTP-G α protein activates _____

This enzyme catalyzes the formation of _____ from _____

The _____ is an allosteric activator of _____

_____ then phosphorylates many target proteins.

This is an example of _____.

A GEF is:

A GAP is: