

THE NEURON

DENDRITES

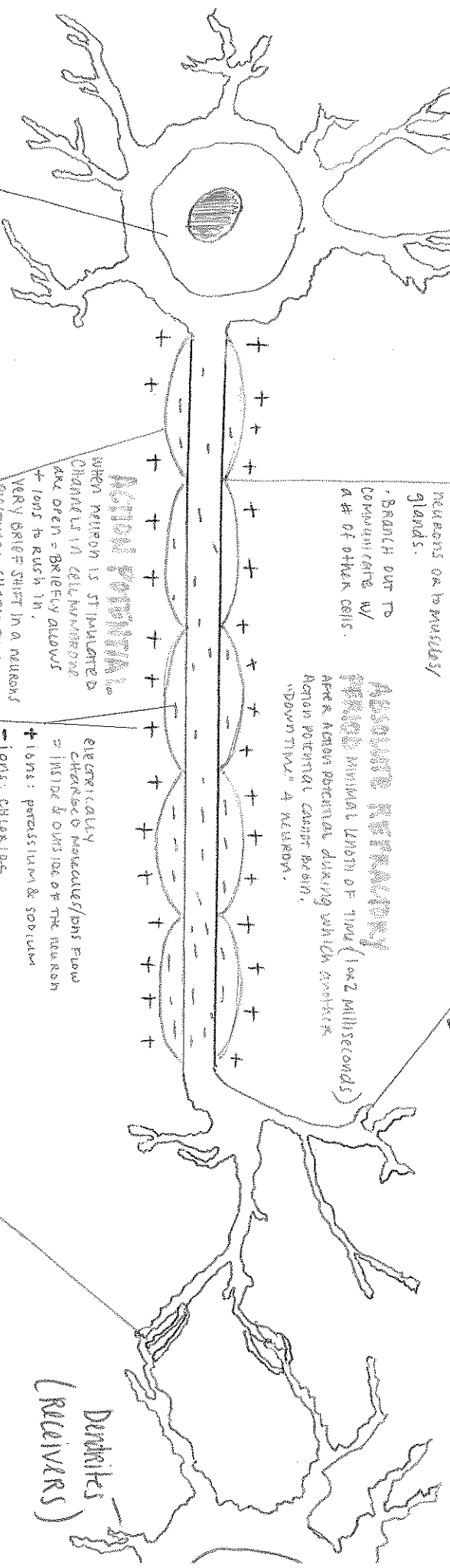
"Tree"
parts of the neuron that receive info. into flows into cell body via Dendrites and then travels away from the soma along the axon

AXON

long thin fiber that transmits signals away from the soma to other neurons or to muscles/glands.
BRANCH OUT TO COMMUNICATE w/ a # of other cells.

TERMINALS / BUTTONS

(TRANSMITTERS)
Small buttons/knots that secrete chemicals = NEUROTRANSMITTERS (messengers that may activate neighboring neurons)



SOMA

(CELL BODY)
CONTAINS CELL NUCLEUS & CYTOPLASM
CONTAINS MOST OF THE DNA

MYELIN SHEATH

WHITE fatty substance that wraps the axon. INSULATES & ENHANCES SOME AXONS. SPEEDS UP THE TRANSMISSION OF SIGNALS THAT MOVE ALONG THE AXON. IMPROVEMENT OF THE SPEED OF TRANSMISSION OF SIGNALS MAY NOT BE TRANSMITTED EFFECTIVELY.
ex. LOSS OF MYELIN CONTROL IN MS = due to deterioration of myelin sheath.

IONS

electrically charged molecules/ions flow = IONIC & DIONS ION OF THE NEURON
+ IONS: POTASSIUM & SODIUM
- IONS: CHLORIDE
FLOW BACK & FORTH BUT @ DIFFERENT RATES. MORE - CHARGED INSIDE CELL.

RESTING POTENTIAL

STABLE NEGATIVE CHARGE WITHIN THE CELL IS MAINTAINED - 70 millivolts
* NO TYPICAL NEURON - SO MANY EXCEPTIONS.
BUT IDEALLY = INFO IS RECEIVED @ THE DENDRITE & PASSED THROUGH THE SOMA AND ALONG THE AXON AND IS FINALLY TRANSMITTED TO THE DENDRITES OF OTHER CELLS @ MEETING POINTS CALLED SYNAPSES.
WHERE INFO IS TRANSMITTED FROM ONE NEURON TO ANOTHER.
MESSAGE BEING SENT

SYNAPSE

Dendrites (Receivers)