

stem cell

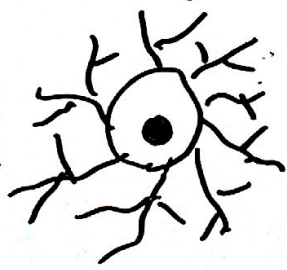
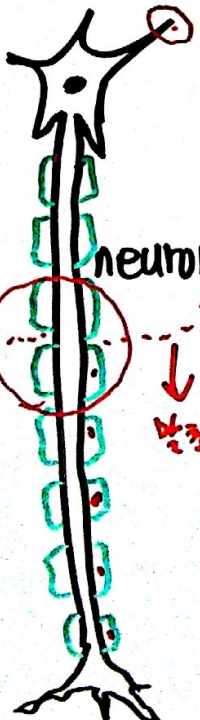


progenitor cell



neuroblast

gliablast



interneuron



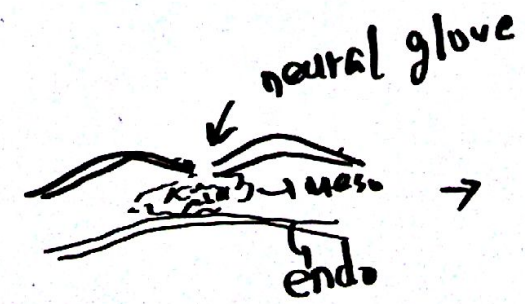
astrocyte



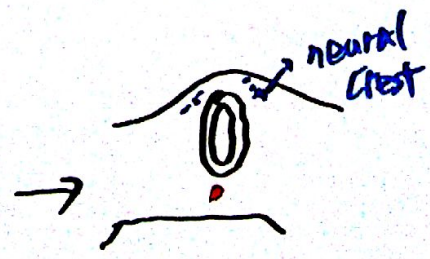
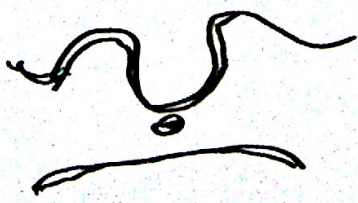
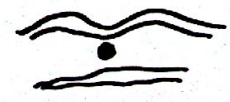
oligodendrocyte



Schwann

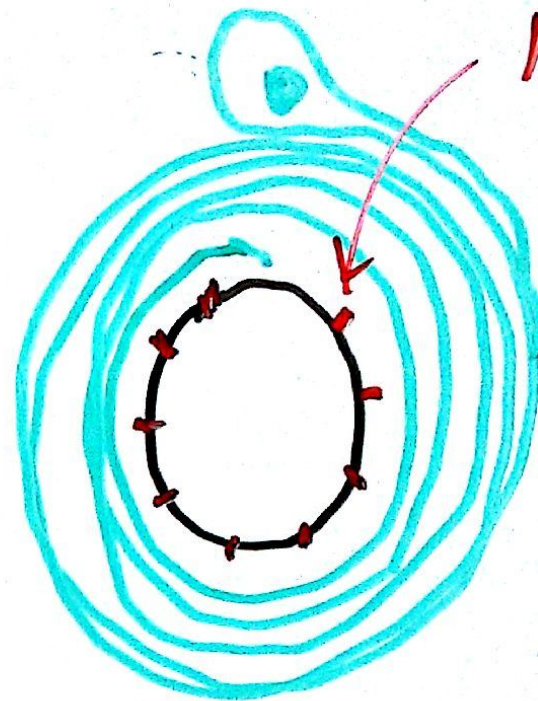
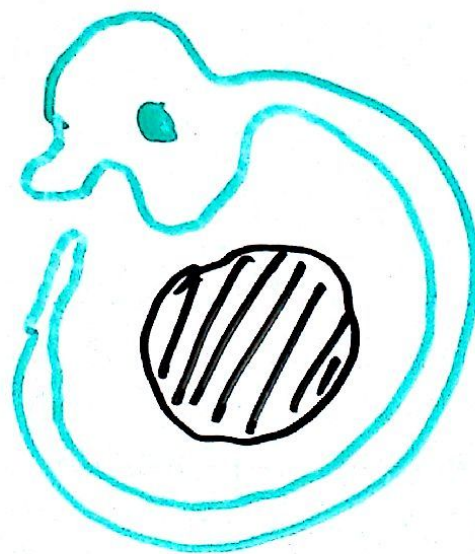
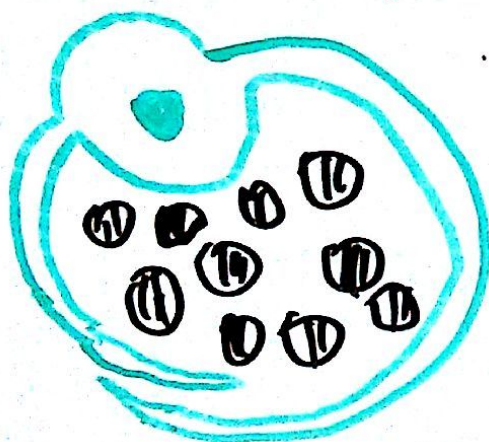
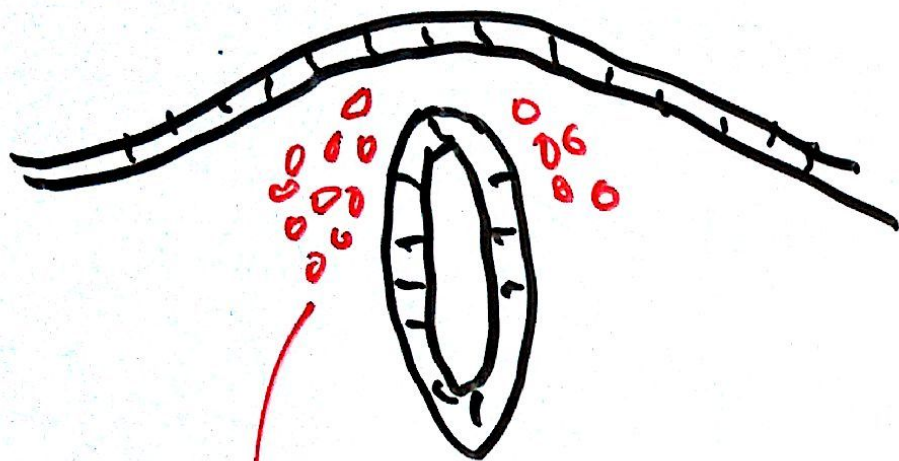


neural groove



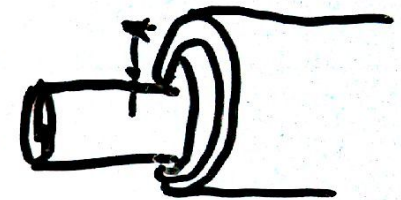
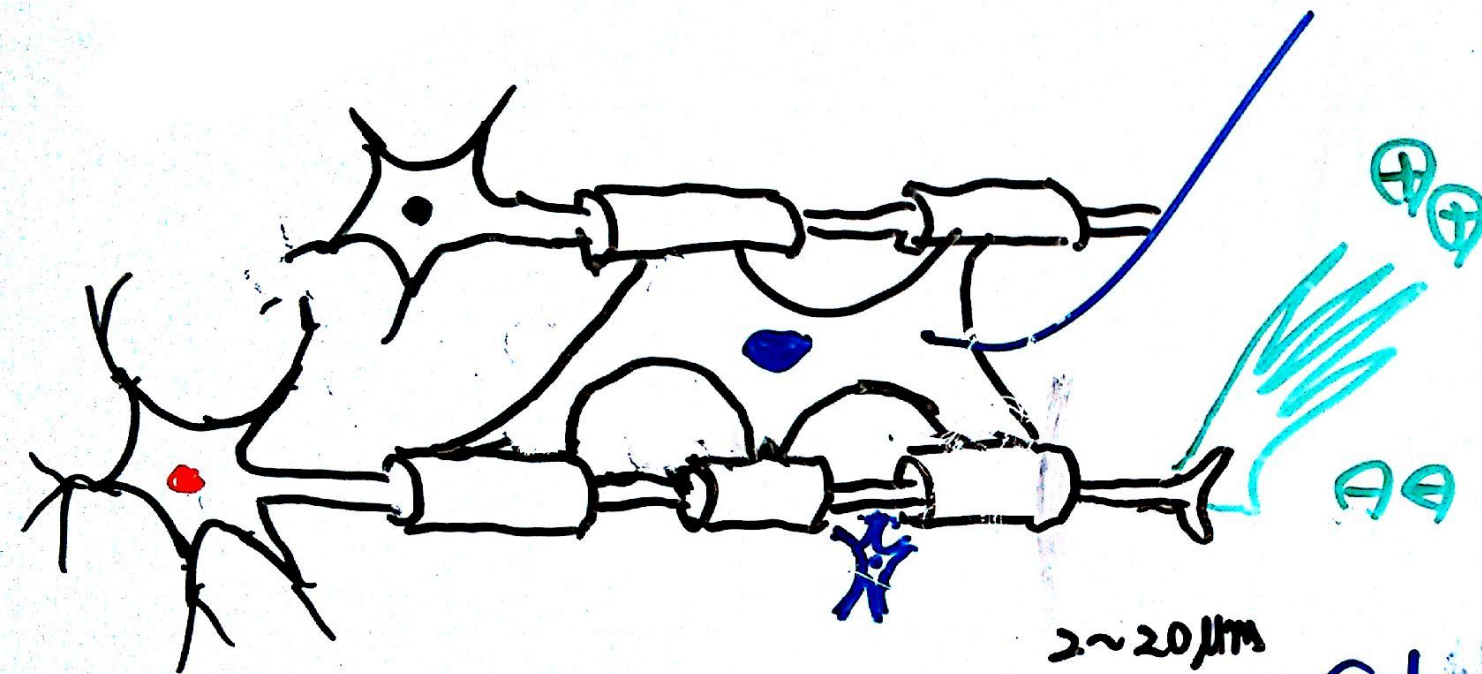
neural crest

고각
고신

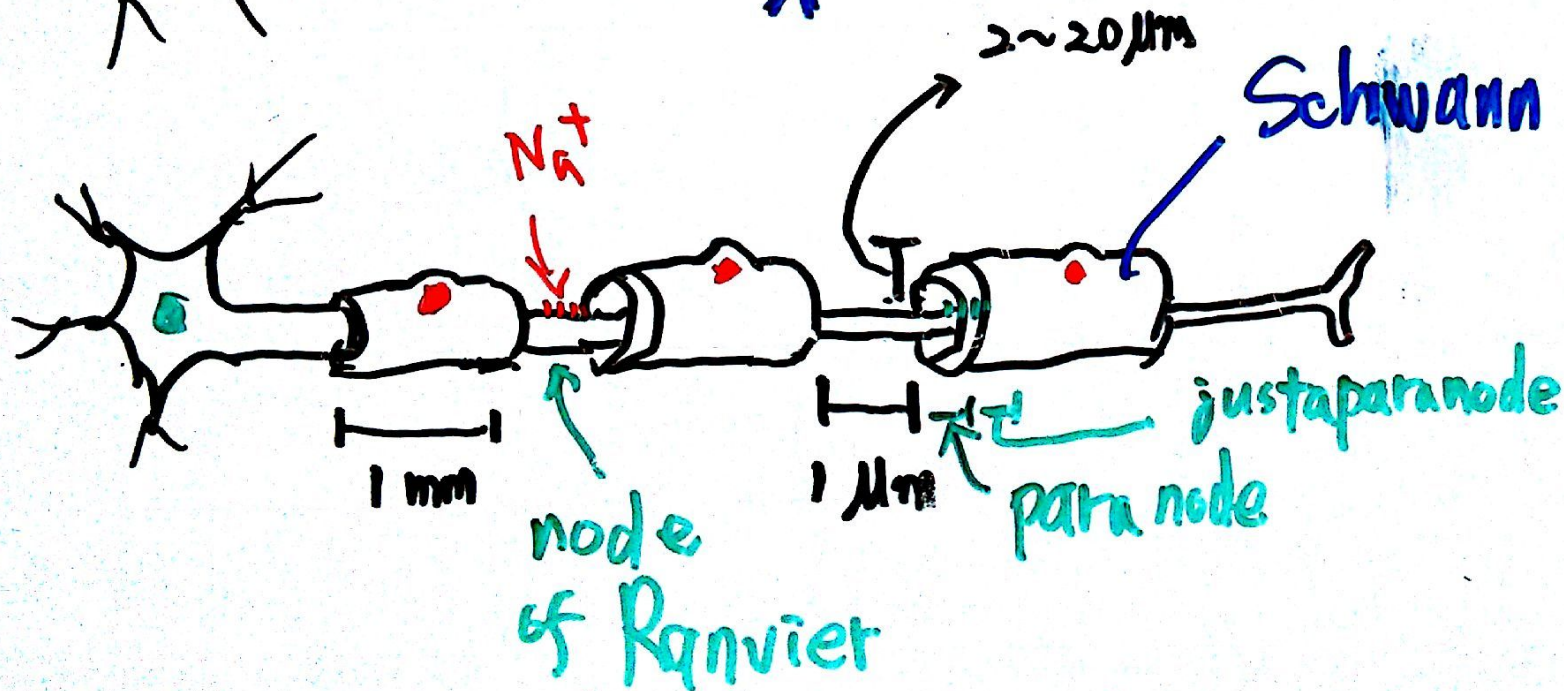


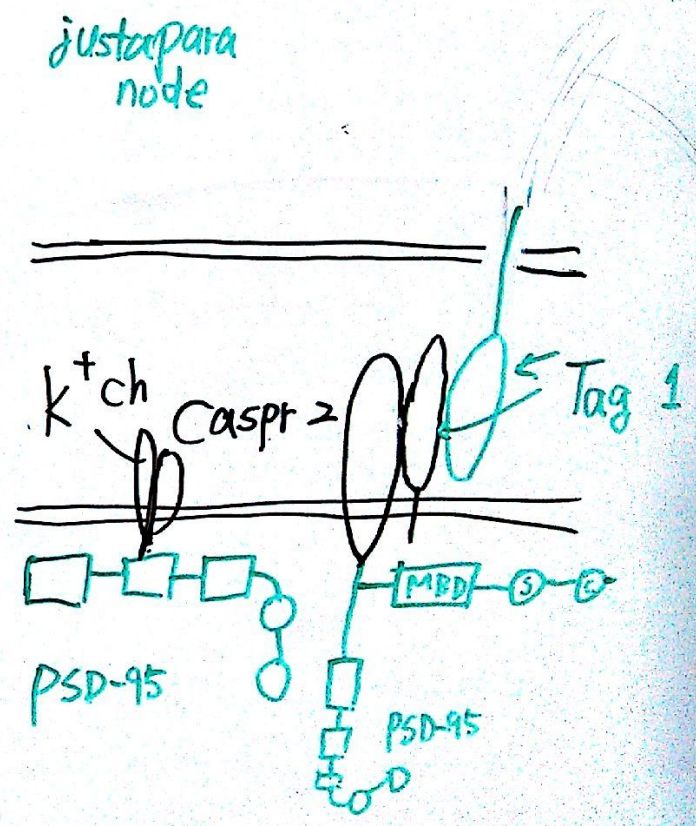
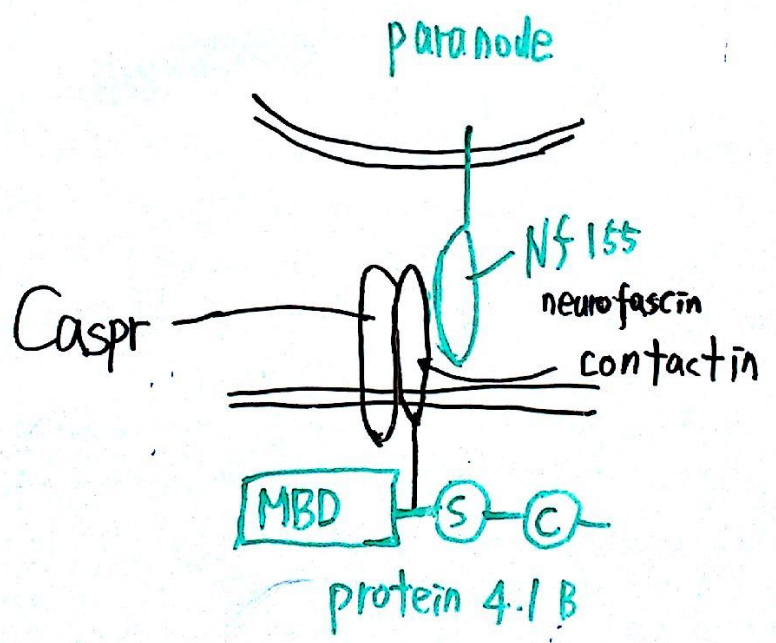
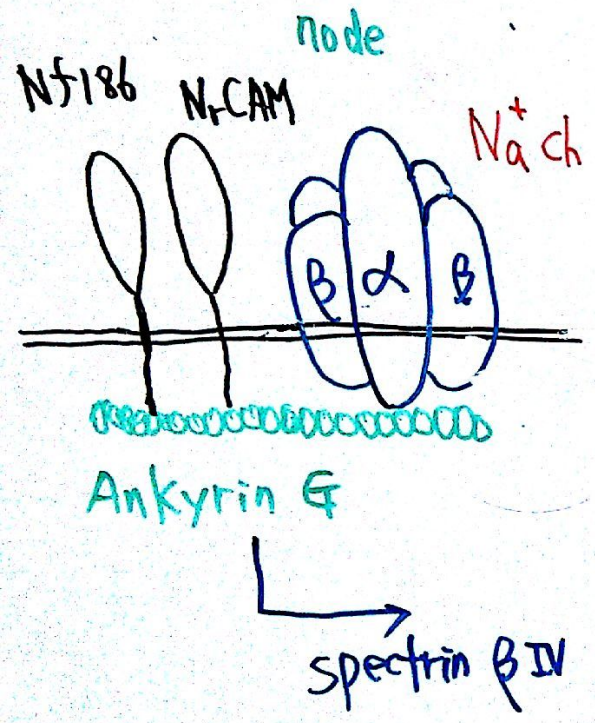
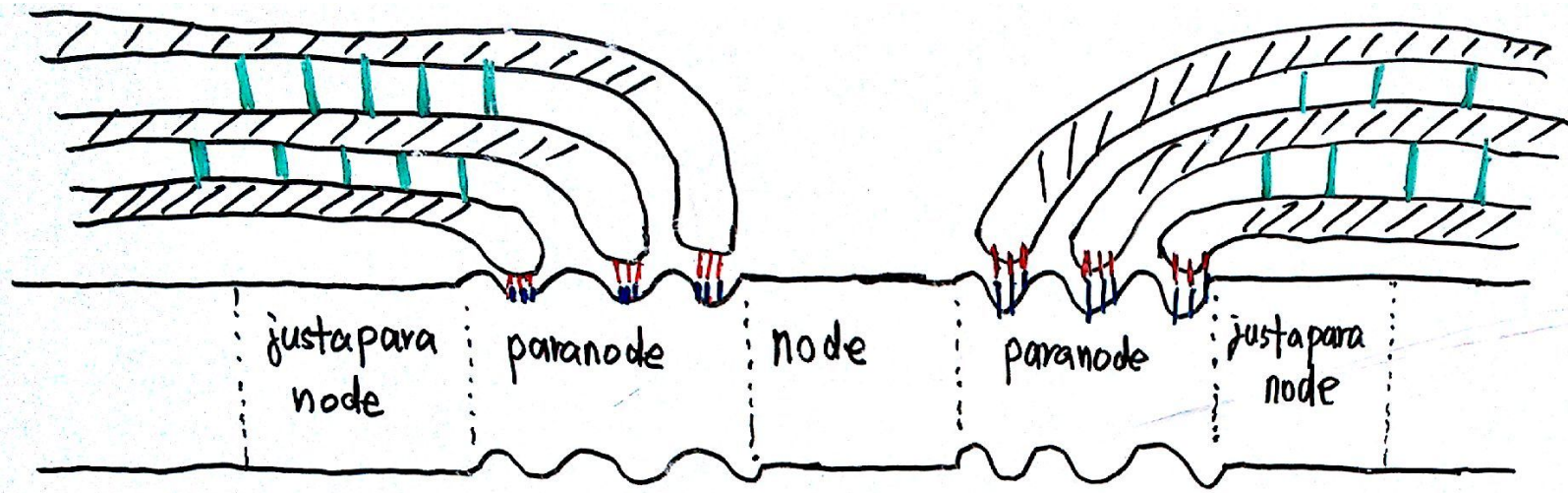
neregulin

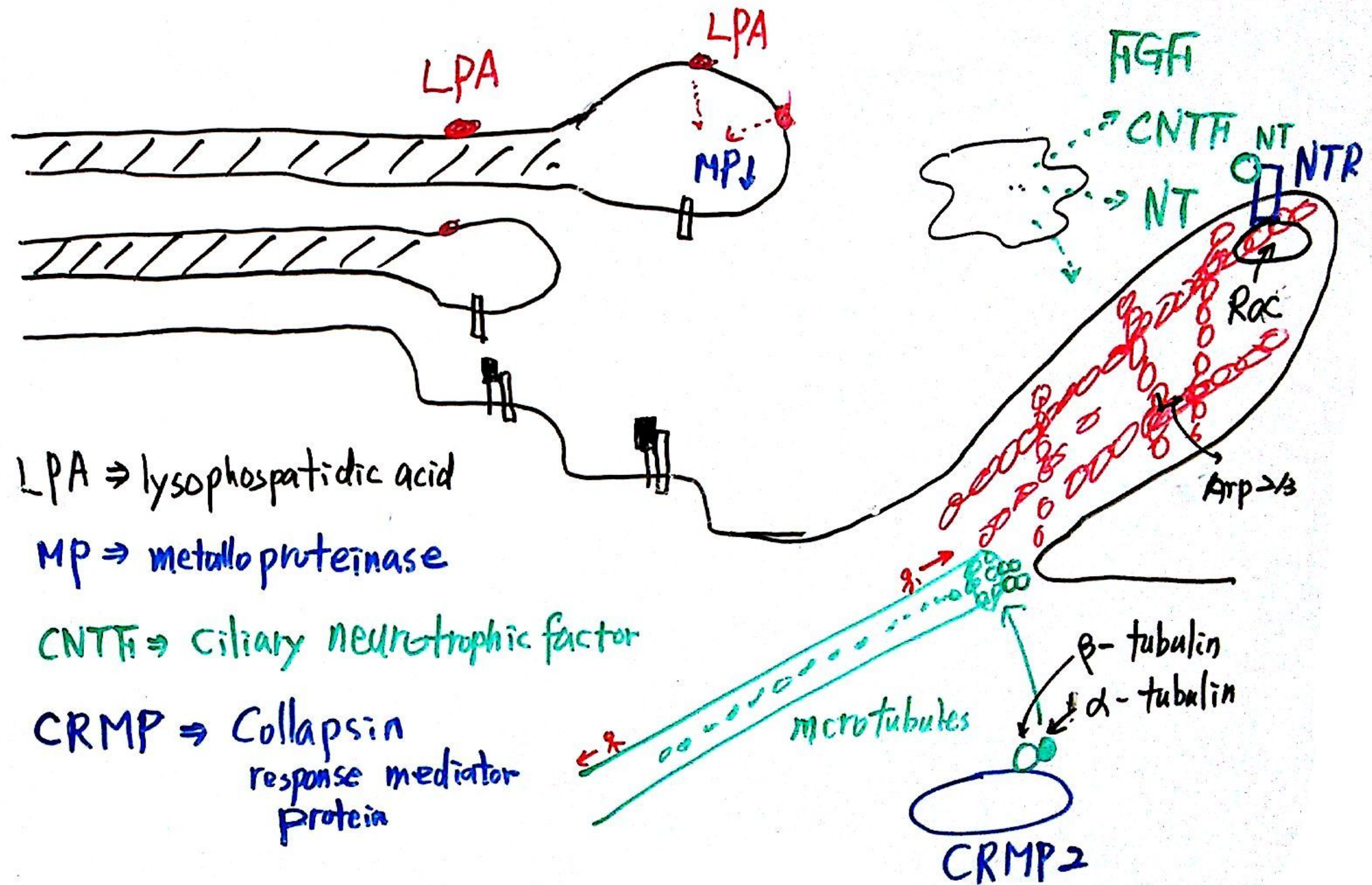
oligodendrocyte

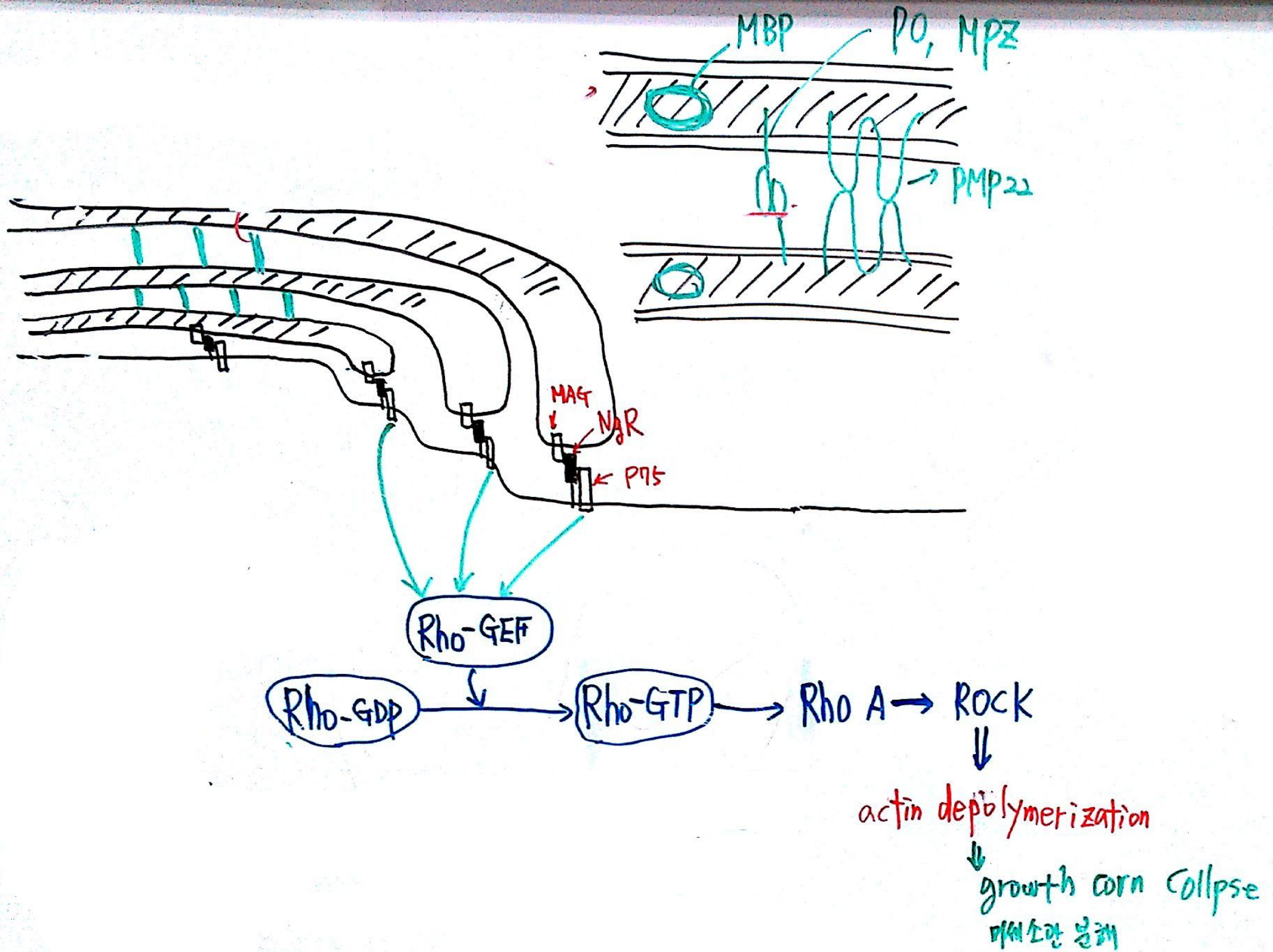


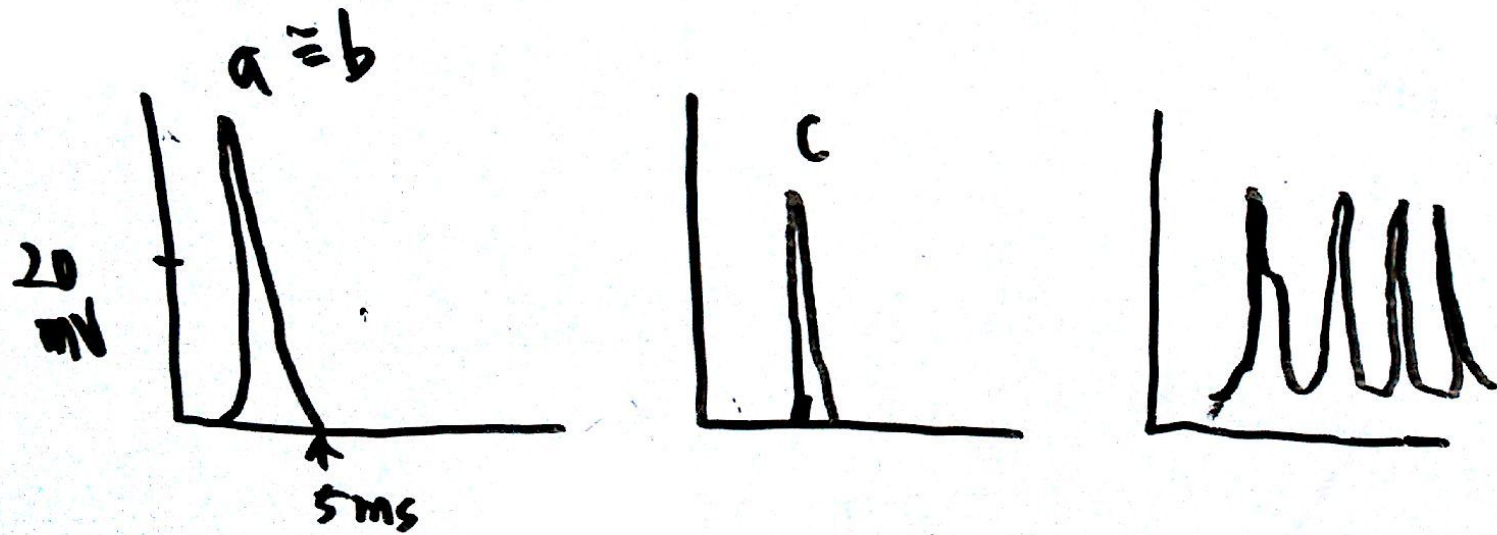
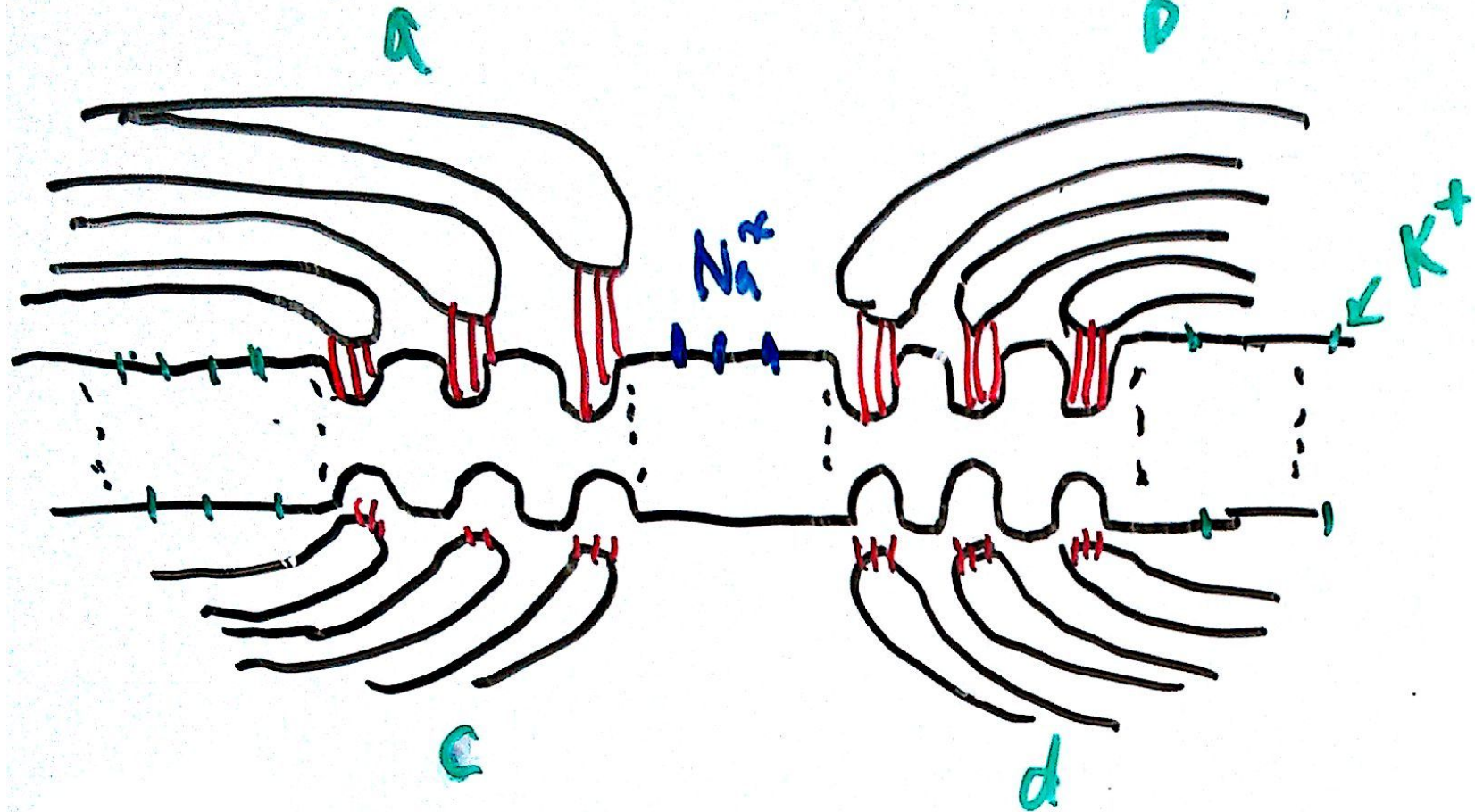
$$\frac{\text{myelin } \phi}{\text{axon } \phi} = 0.6$$



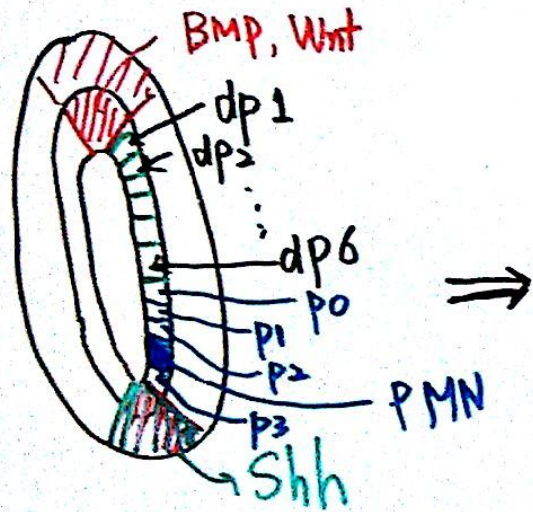




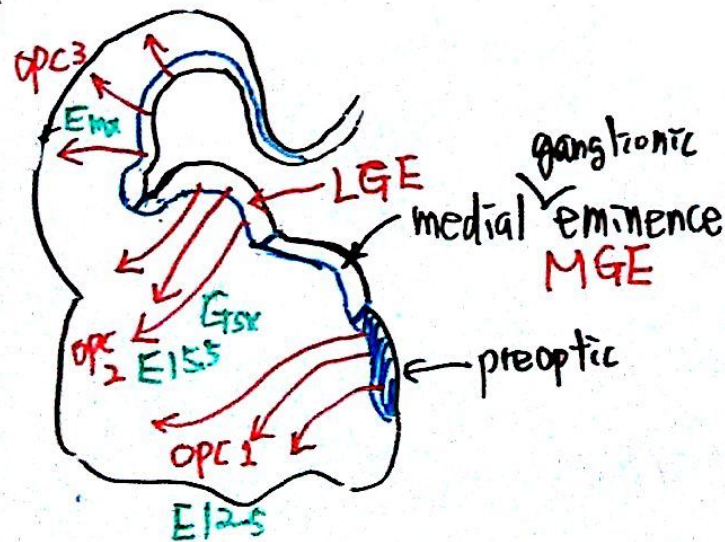




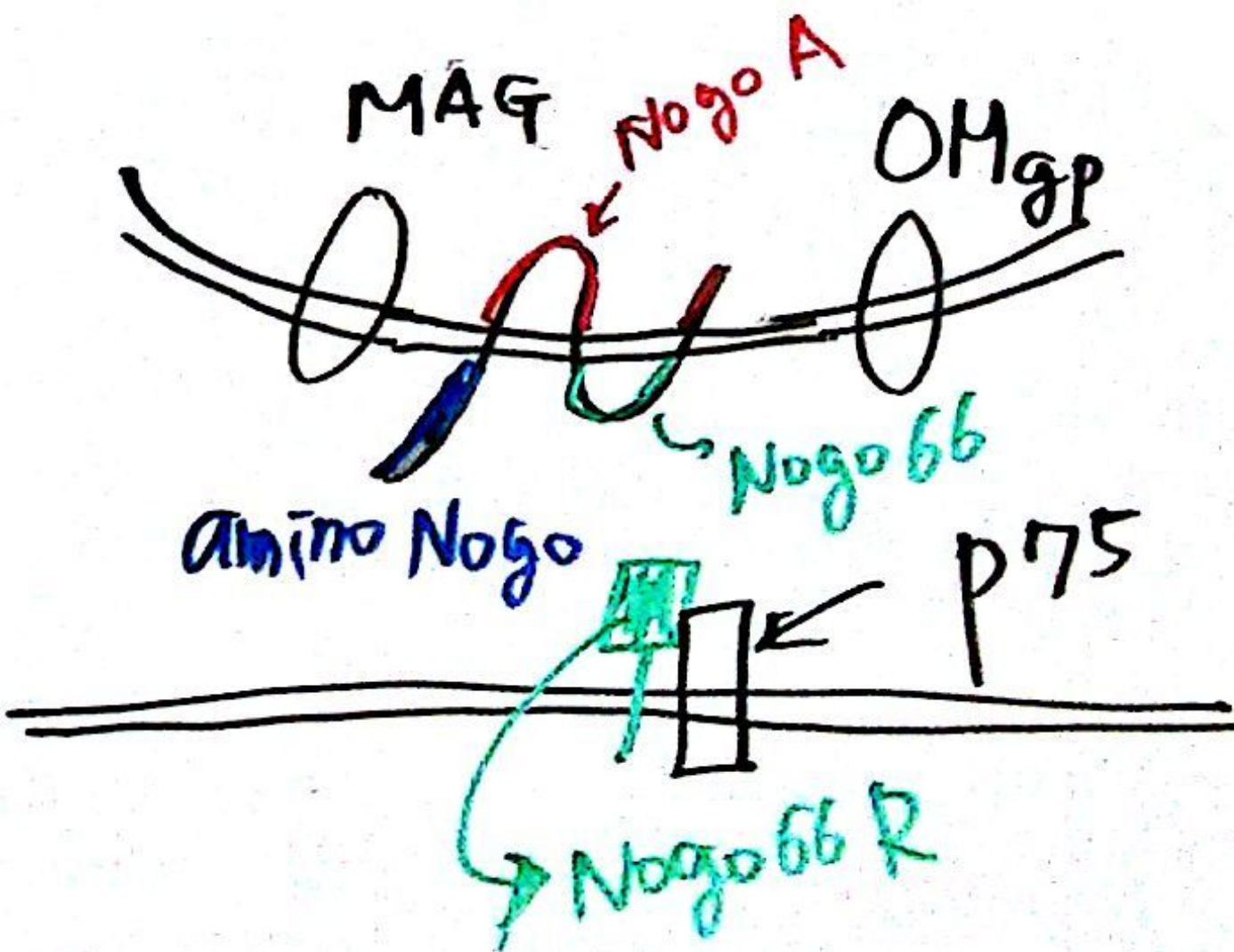
OPC
 ⇒ oligodendrocyte progenitor cell



OPC 1 ⇒ PMN ⇒ BMP ↓ Shh ↑
 OPC 2 ⇒ dp3 ~ dp6 ⇒ Shh indep.
 OPC 3 ⇒ 출생 이후



Emx ⇒ homeobox gene
 Gsx



OMgp
⇒ Oligodendrocyte
Myelin
glycoprotein

neutron $40 \mu\text{m}/\text{h}$

ion channel $3 \mu\text{m}/\text{min}$

He^{2+}_{27} $1 \text{ mm}/\text{sec}$

AMPAR 15 min

neural groove

