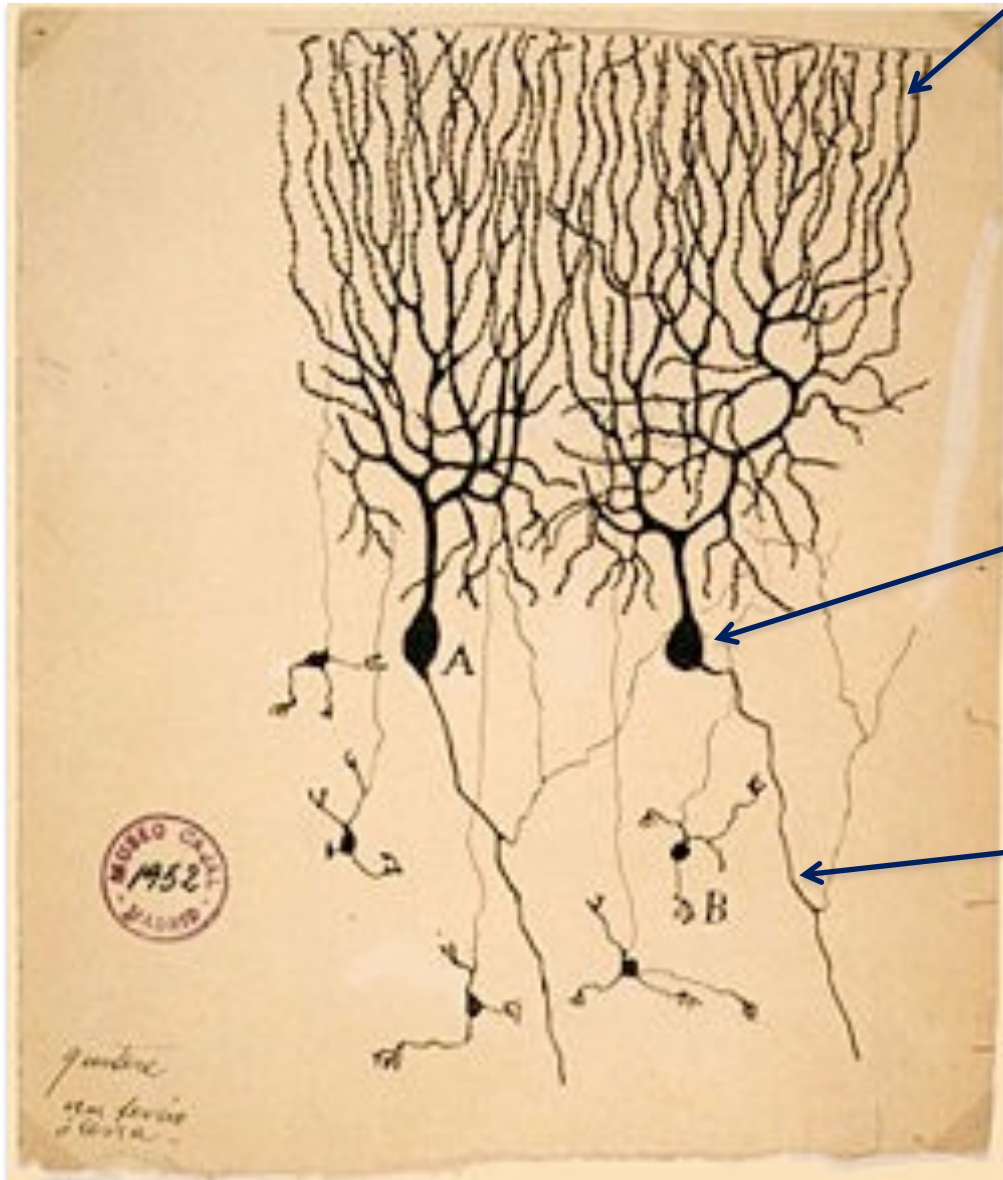


Il neurone

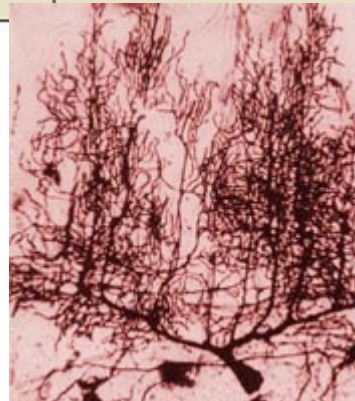
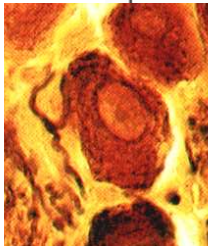
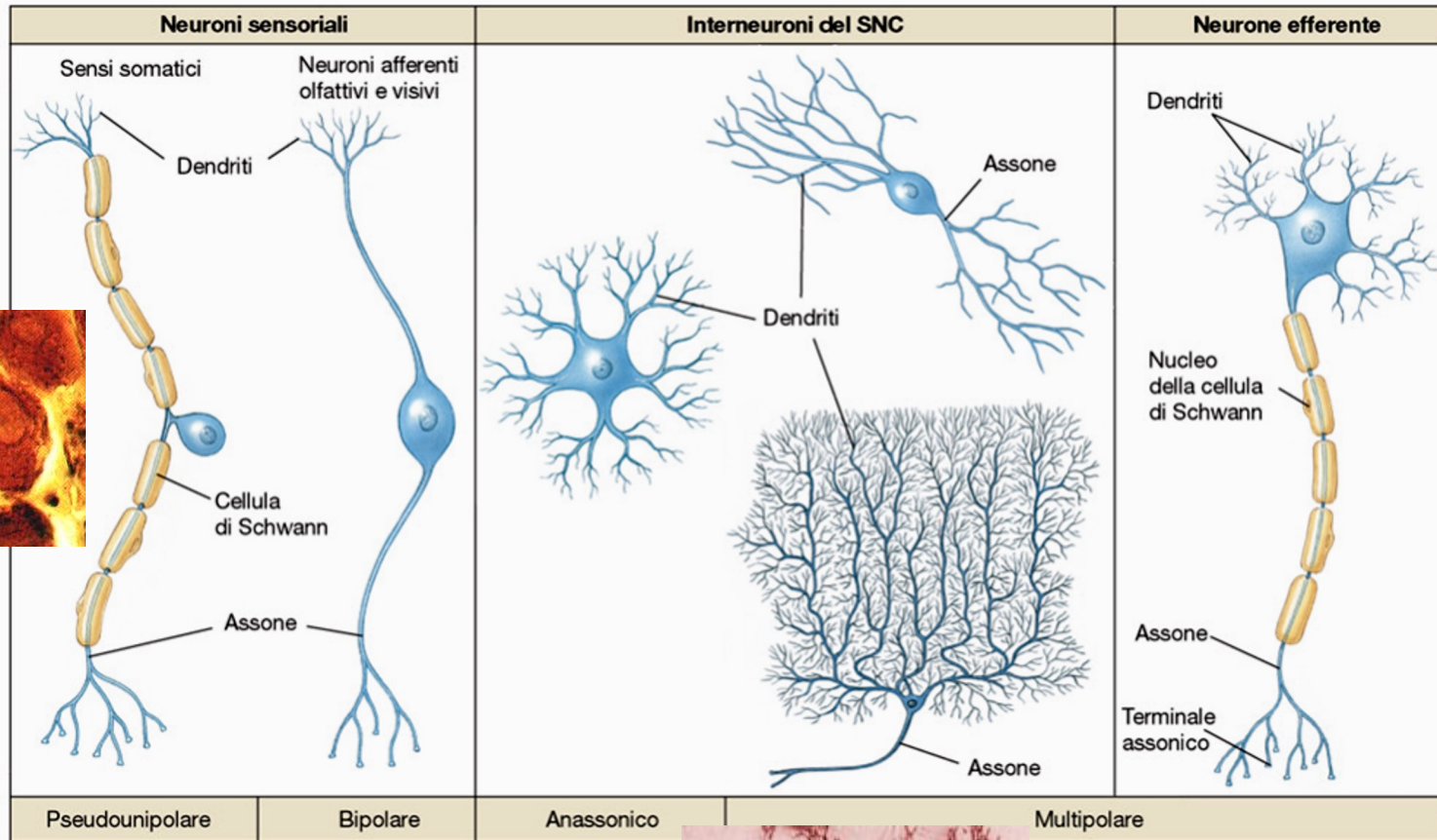
Dendriti (dal greco dèndron=albero)

*Soma
(corpo cellulare)*

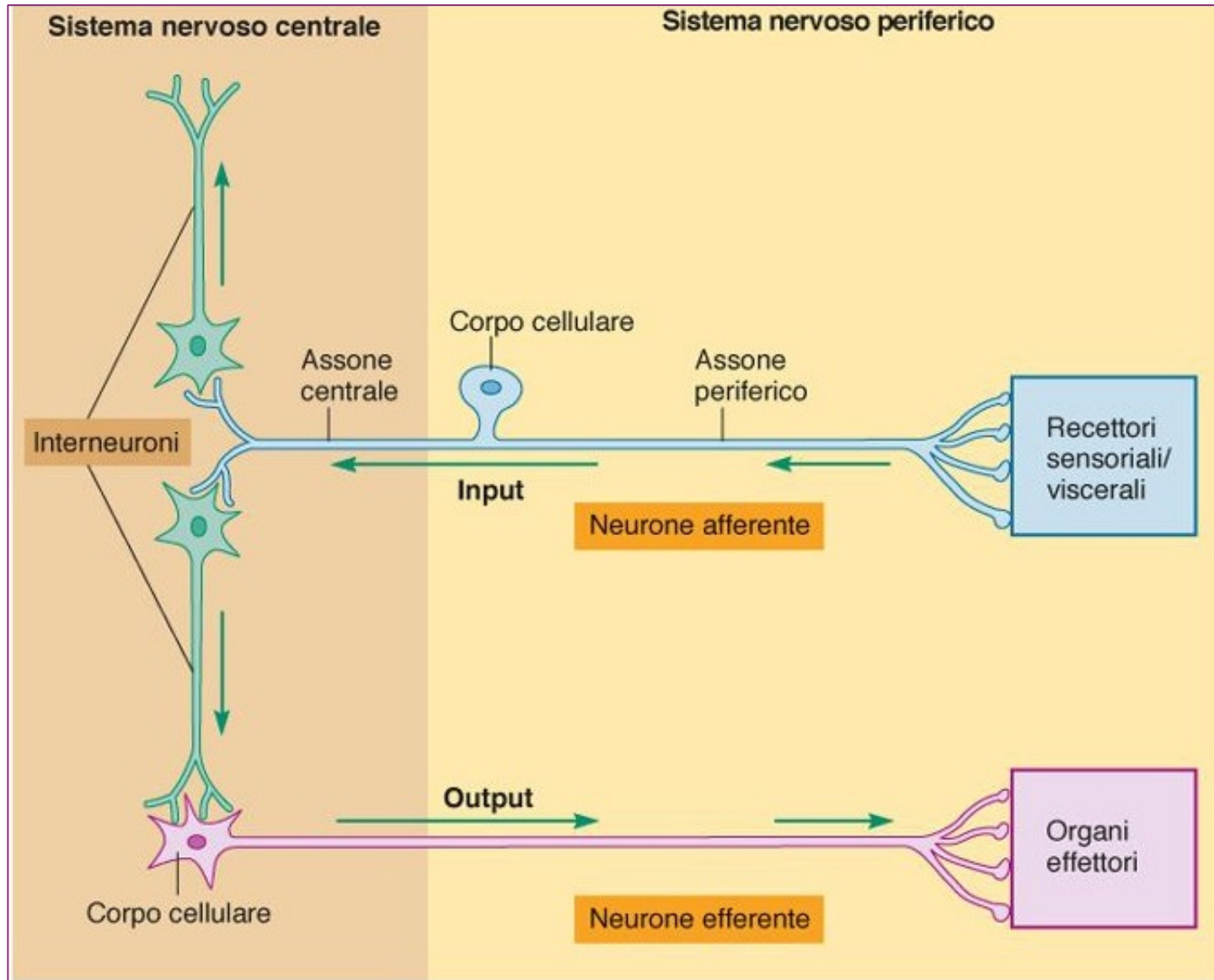
Assone

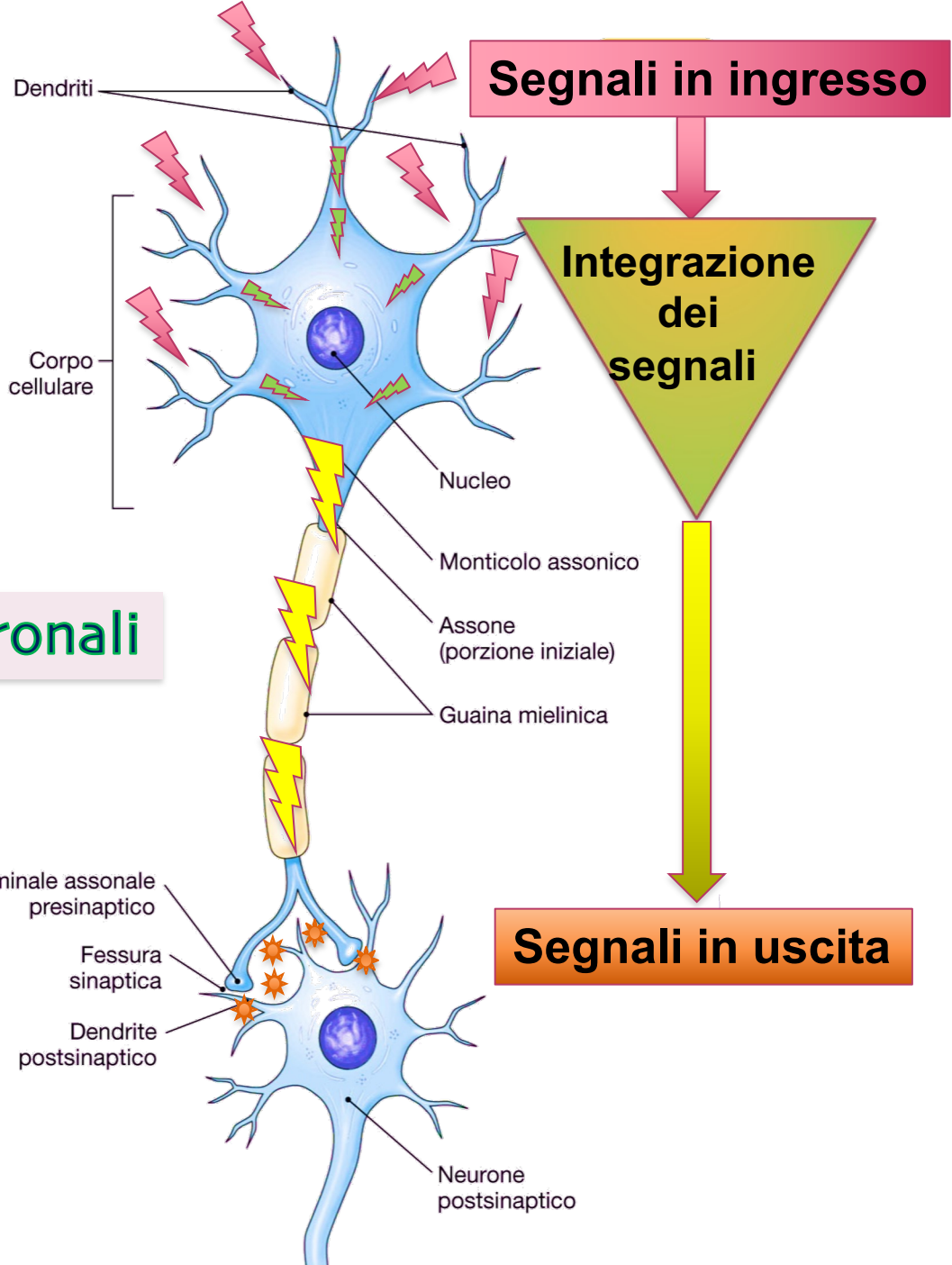


Classificazione anatomica e funzionale dei neuroni



Circuiti neuronali





Domini funzionali neuronali

Dendriti

Segnali in ingresso

Integrazione dei segnali

Corpo cellulare

Nucleo

Monticolo assonico

Assone (porzione iniziale)

Guaina mielinica

Segnali in uscita

Terminale assonale presinaptico

Fessura sinaptica

Dendrite postsinaptico

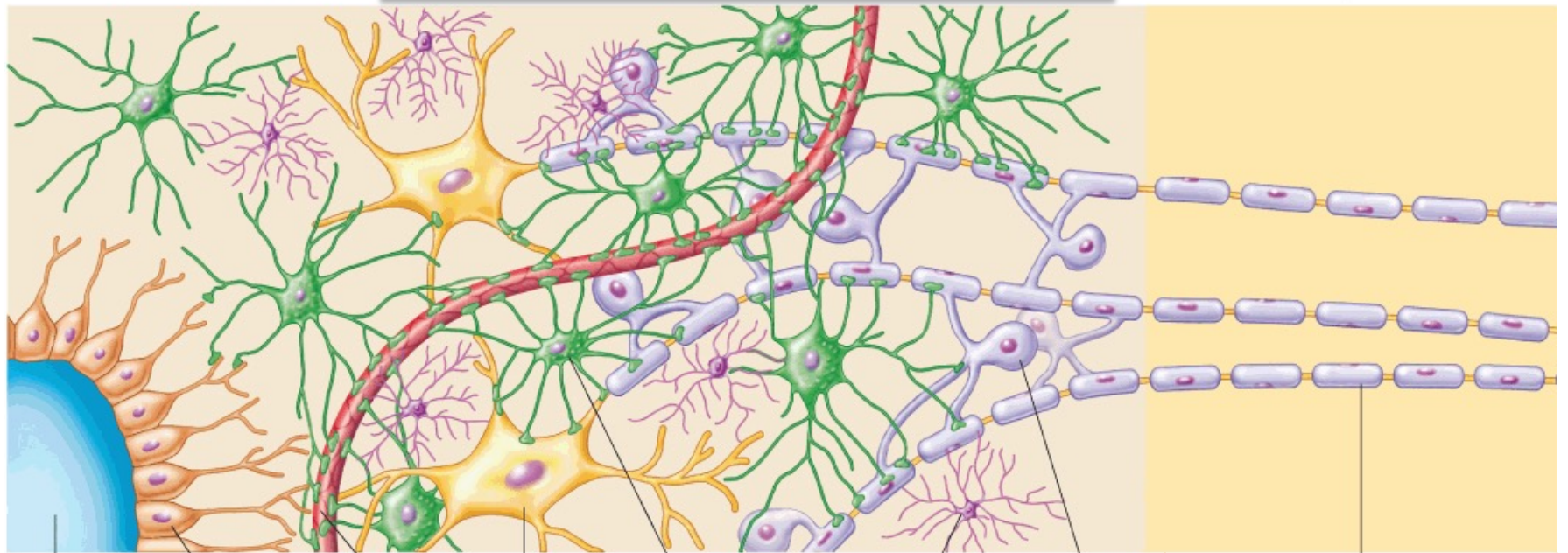
Sinapsi

Neurone postsinaptico

Le cellule gliali e le loro funzioni

Sistema nervoso centrale

Sistema nervoso periferico



Ventricolo

Cellula ependimale

Capillare

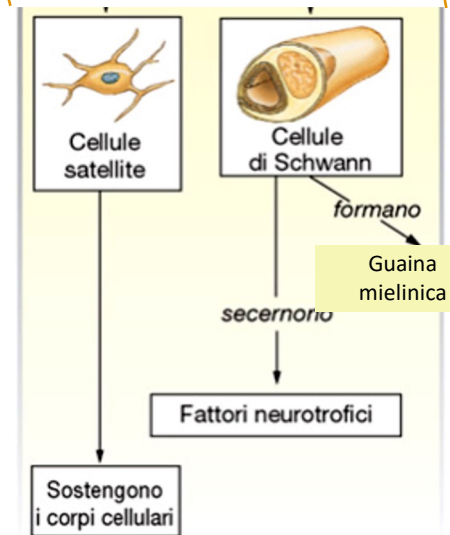
Neurone

Astrocita

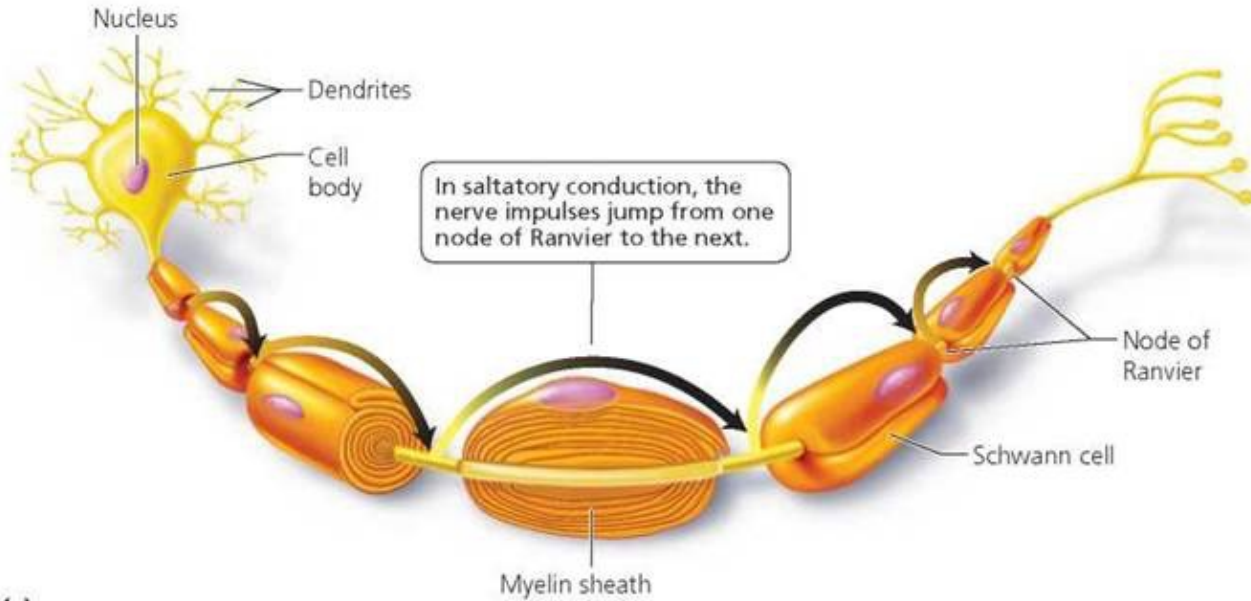
Cellula della microglia

Oligodendrocita

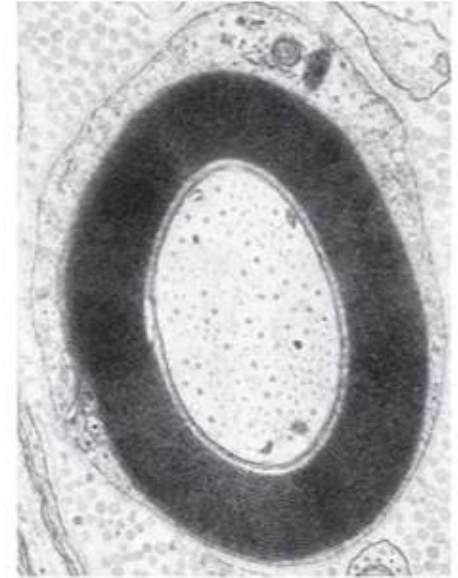
Cellula di Schwann



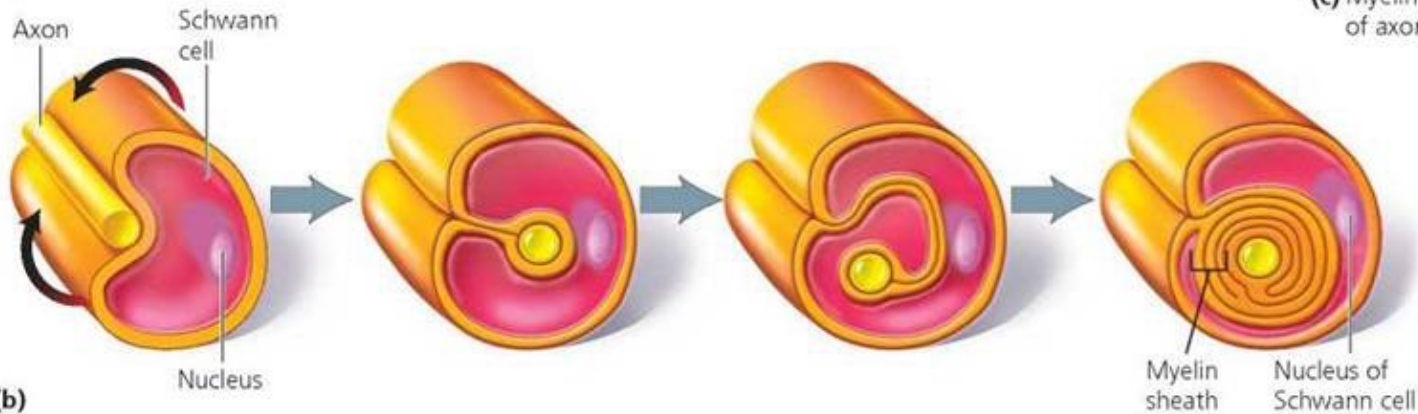
Cellule di Schwann e formazione della guaina mielinica



(a)

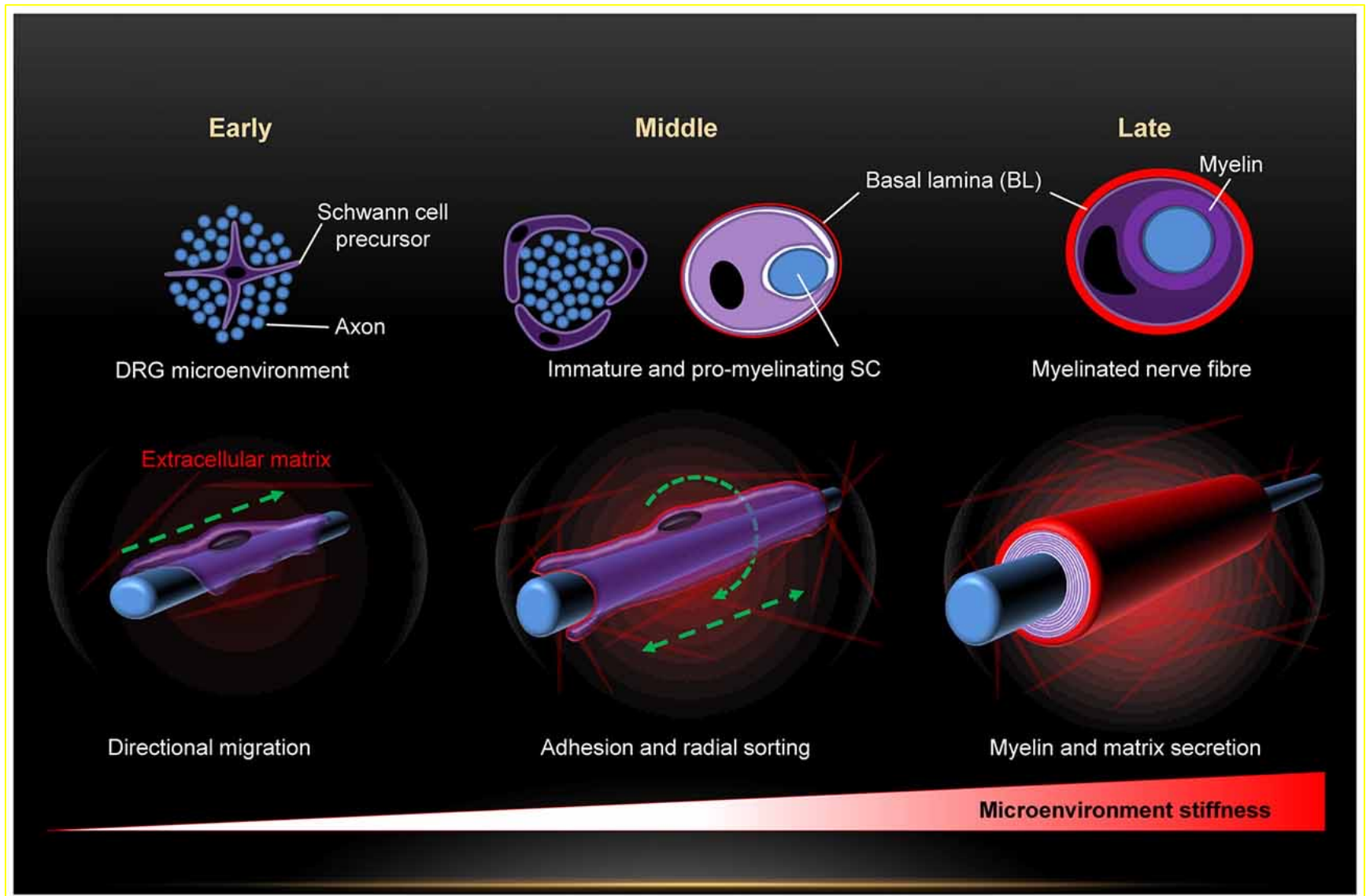


(c) Myelin sheath surrounding cut end of axon



(b)

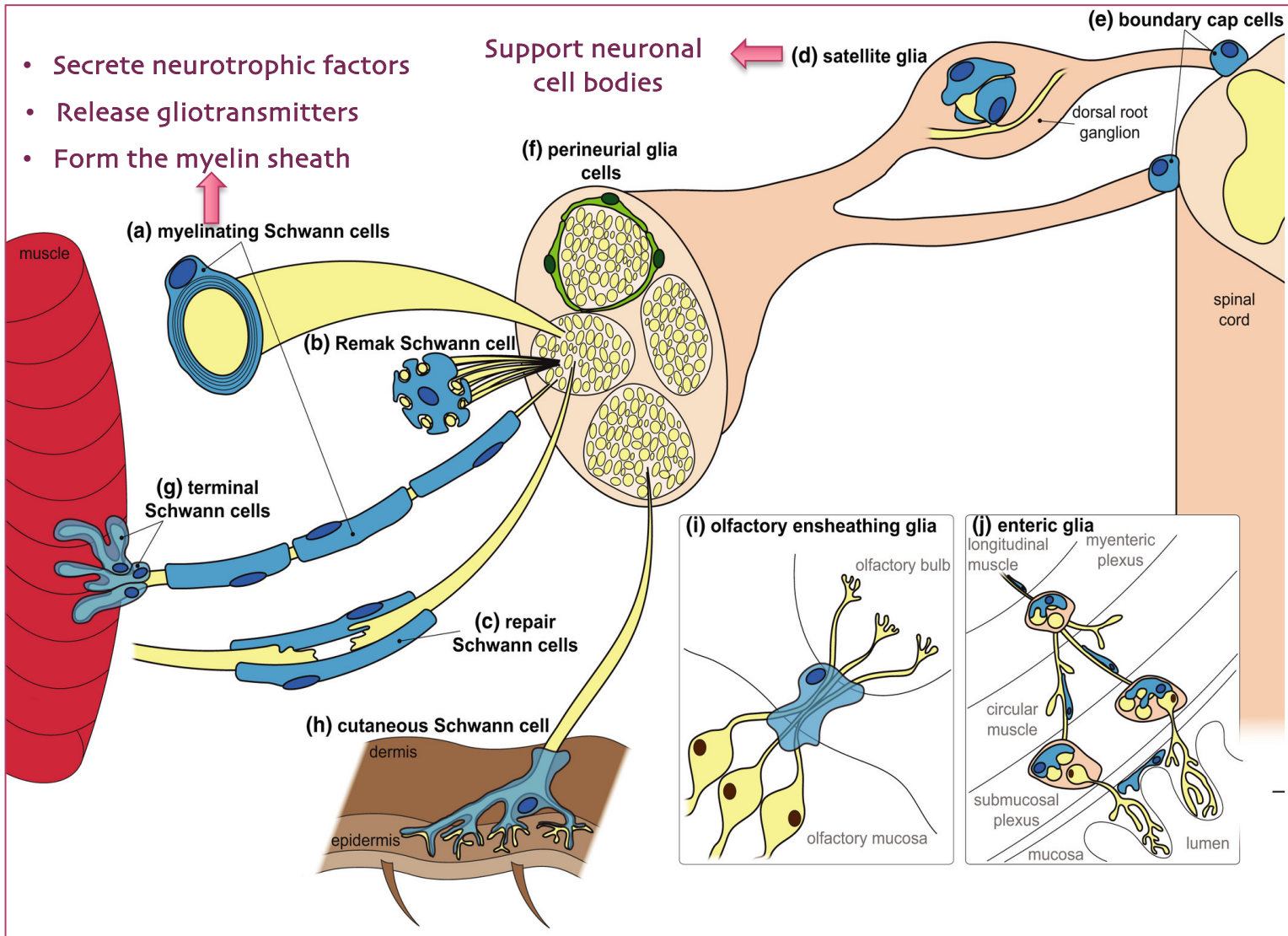
Maturazione cellule di Schwann in un fenotipo mielinizzante



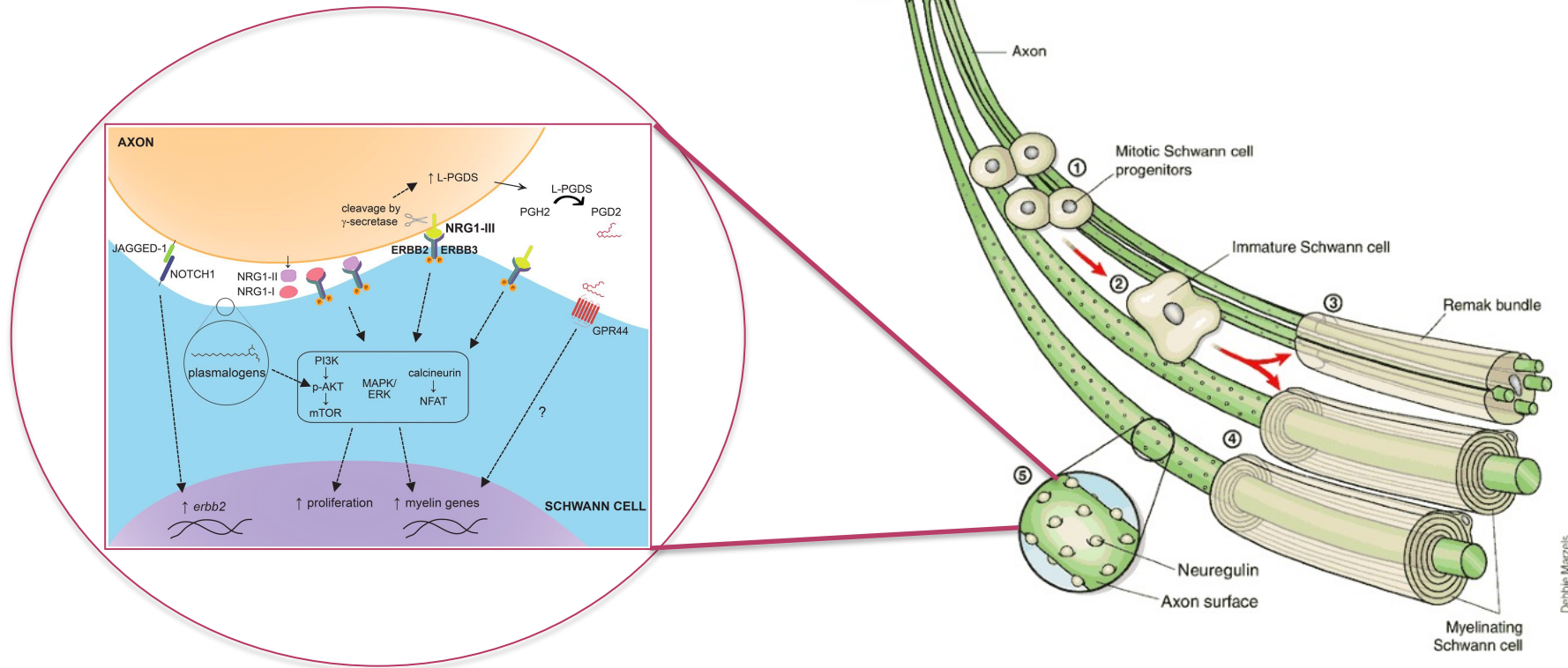
La neuroglia periferica

Cellule funzionalmente diverse

- Secrete neurotrophic factors
- Release gliotransmitters
- Form the myelin sheath

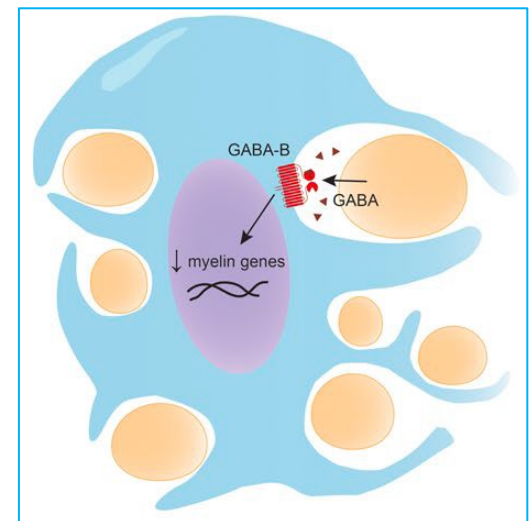
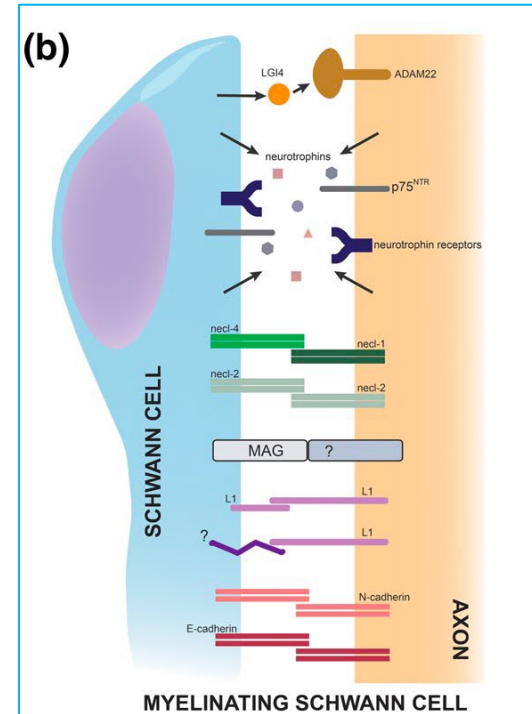
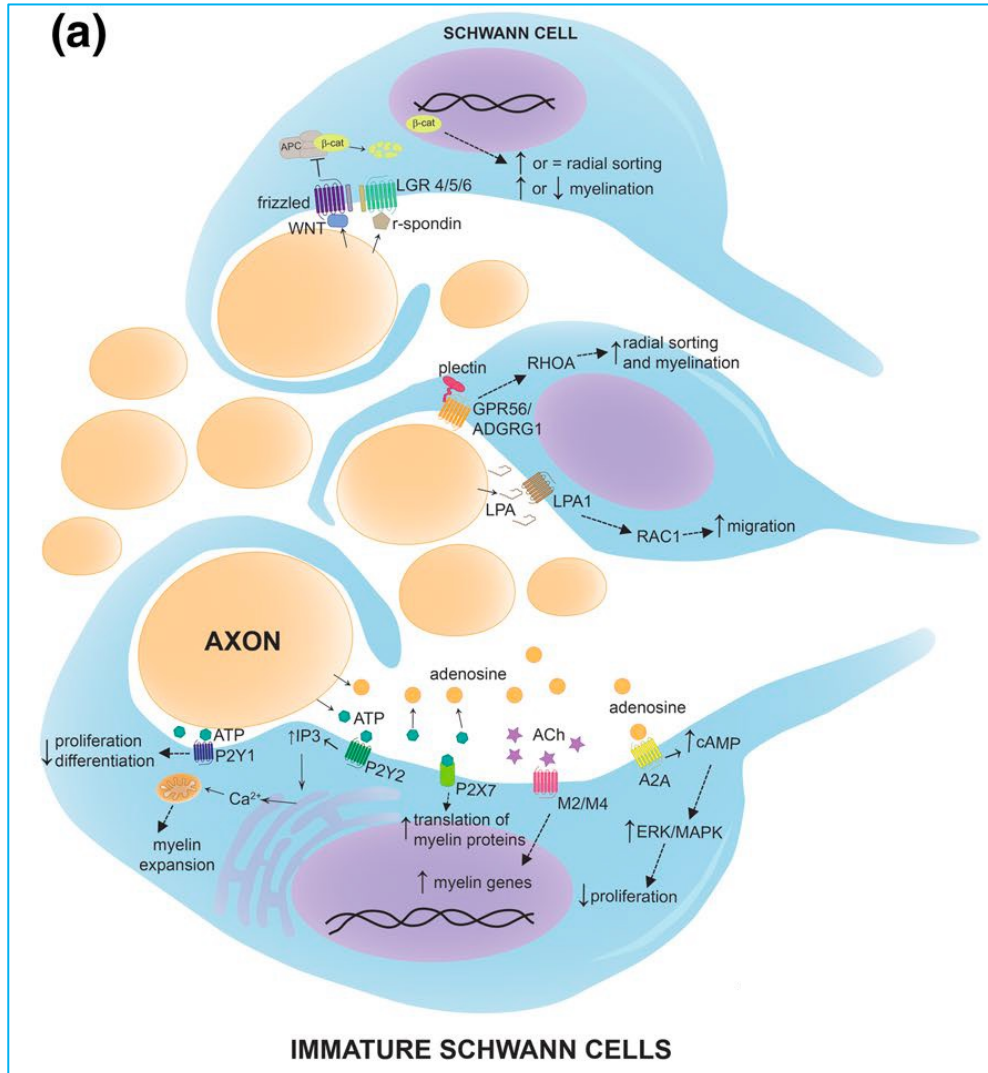


Non tutti gli assoni periferici sono mielinizzati



L'espressione di neuregulina-1 sull'assone determina se una cellula di Schwann immatura differenzierà in una cellula di Schwann mielinizzante

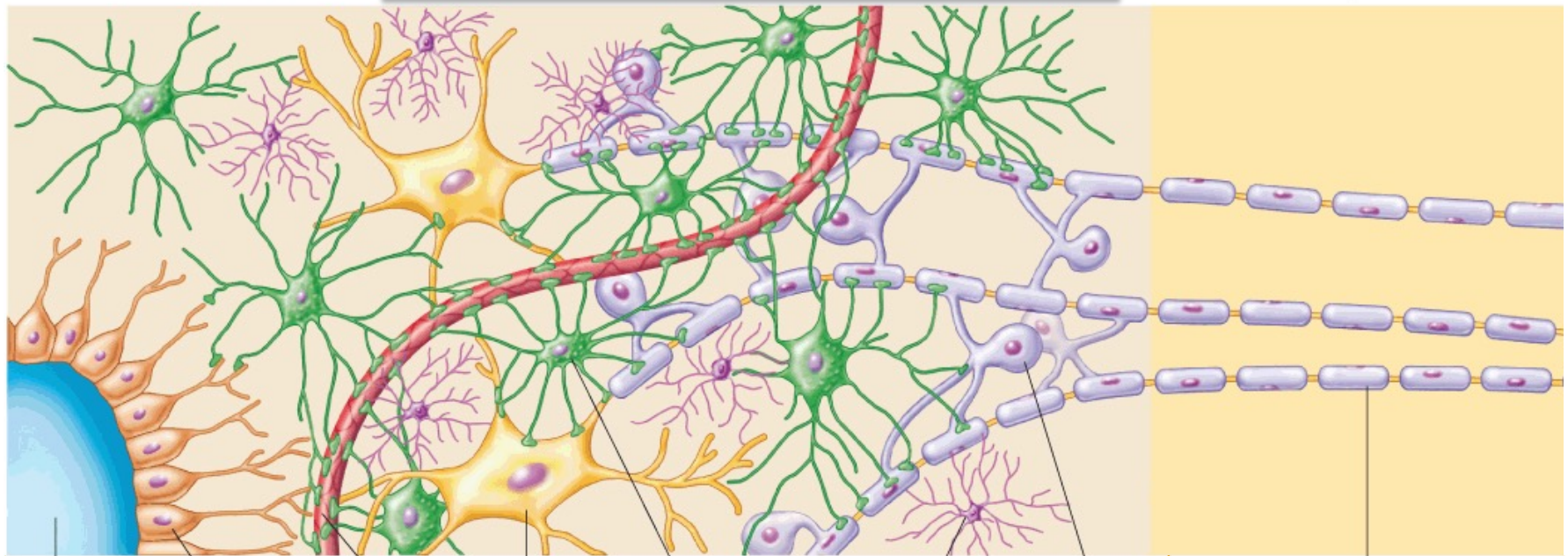
Ma la Neuregulina-1 non è la sola via di segnalazione



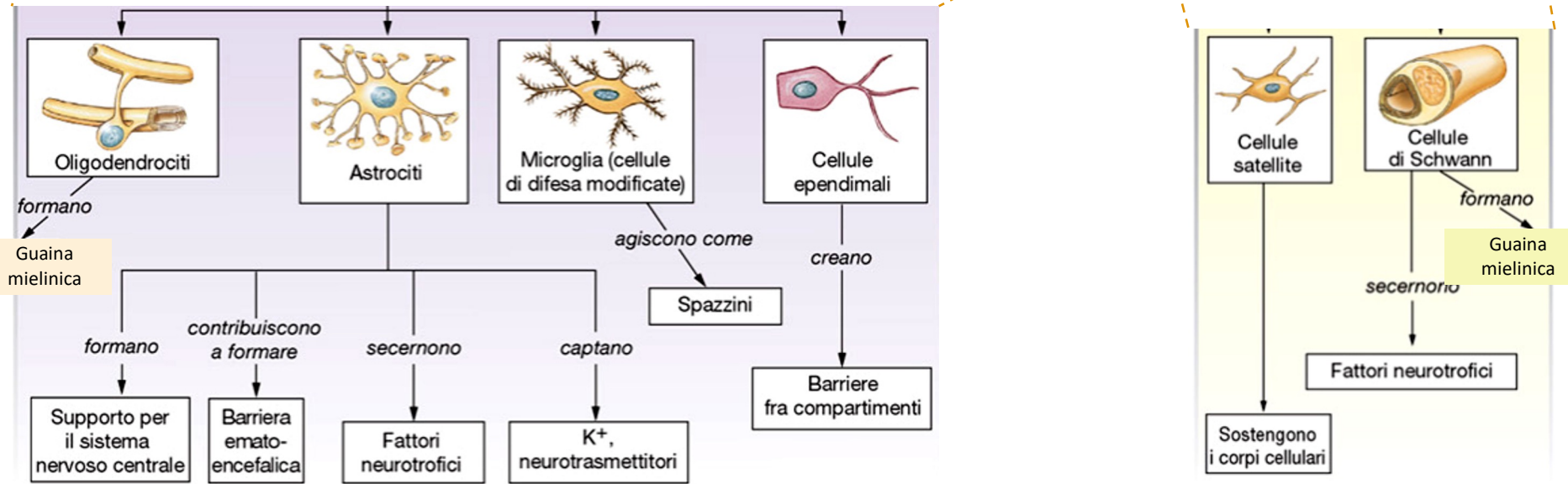
Le cellule gliali e le loro funzioni

Sistema nervoso centrale

Sistema nervoso periferico



Ventricolo Cellula ependimale Capillare Neurone Astrocita Cellula della microglia Oligodendrocita Cellula di Schwann



La neuroglia centrale

Cellule funzionalmente diverse

Create barriers among compartments
(i.e. blood brain barrier, BBB)

Form the
myelin sheath

Release
gliotransmitters

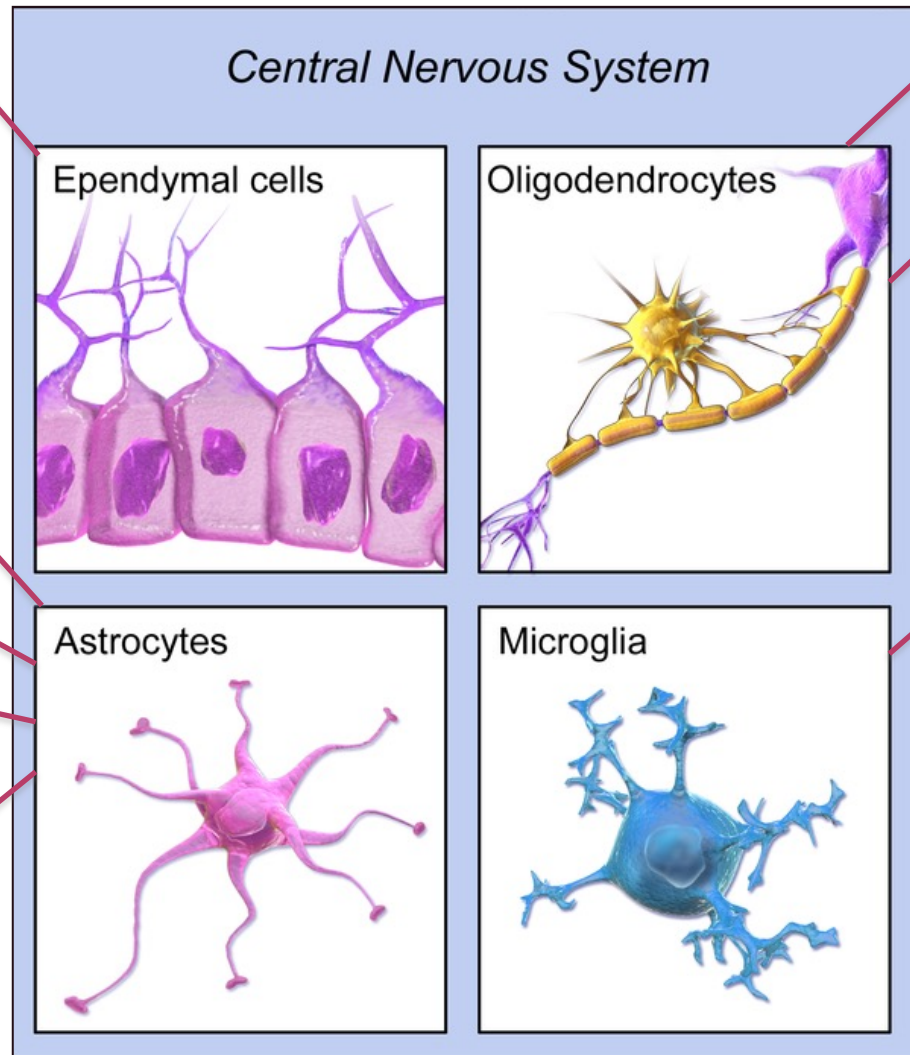
Mechanical support to
the nervous system

Contribute forming the
BBB

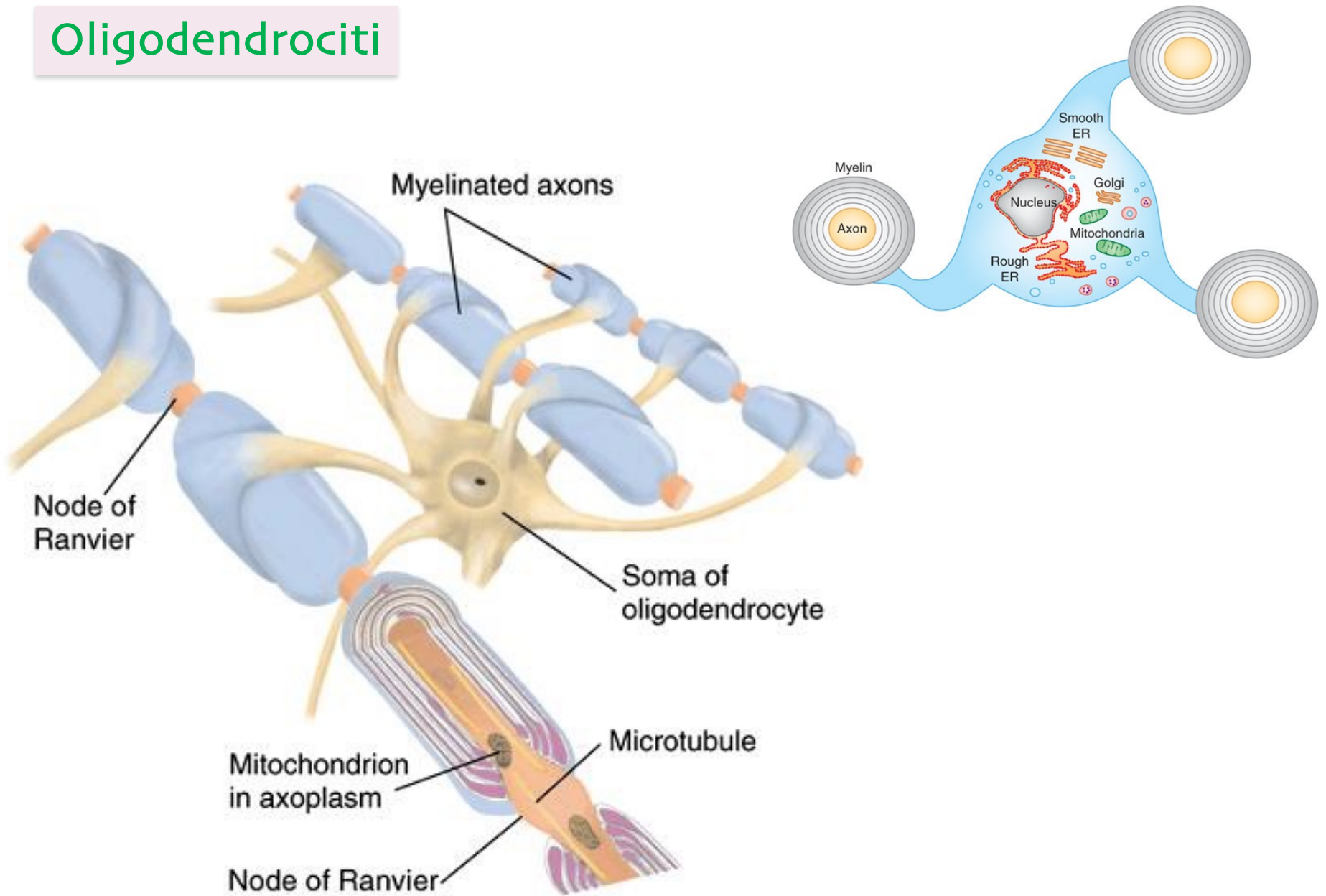
Secrete neurotrophic
factors

Recapture
neurotransmitters
and K^+ from the
extracellular space

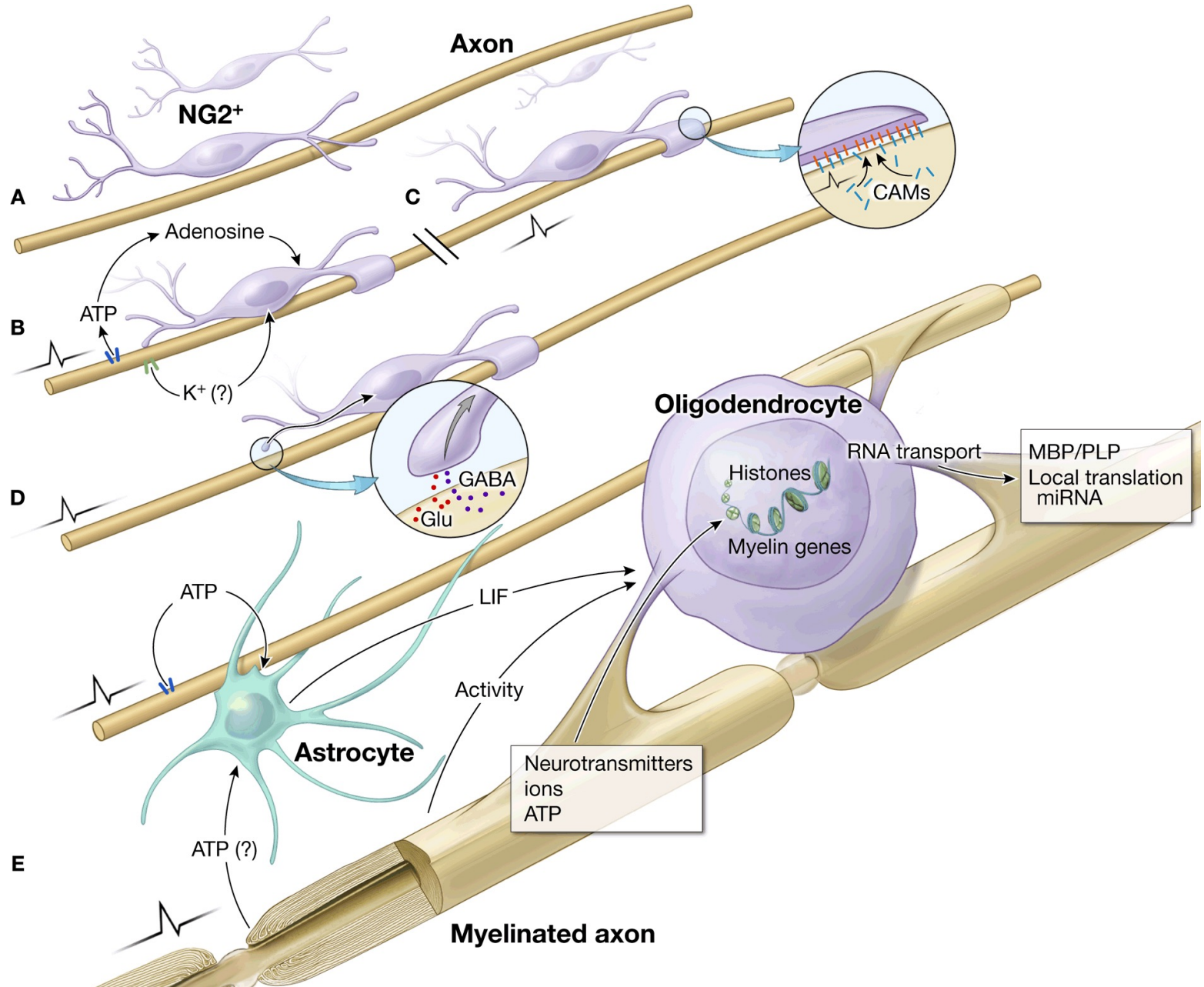
Immune function:
"scavengers"



Oligodendrocyti



Relazione funzionale oligodendrociti-assoni



Interazioni neuroni-neuroglia

