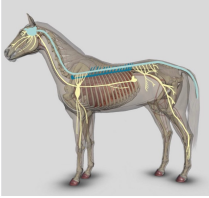



UNIVERSITÀ DEGLI STUDI DI TERAMO  
UNITE



Le cellule nervose



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CONCETTI SOGLIA

- Divisioni del Sistema Nervoso
- Classificazione funzionale dei neuroni
- Potenziali di membrana:
  - riposo
  - graduato
  - azione

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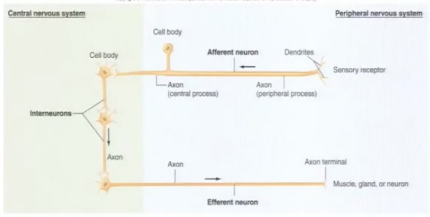
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**SNC:** cervello, midollo

**SNP:** nervi cranici, nervi spinali  
**neuroni afferenti** sono sensoriali (informazioni verso il SNC)  
**neuroni efferenti** inducono cambiamenti (informazioni dal SNC alla periferia)

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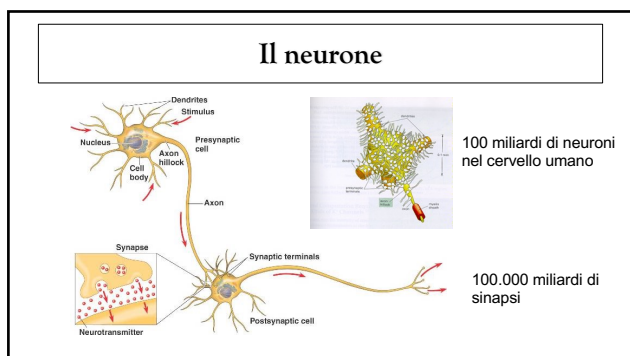
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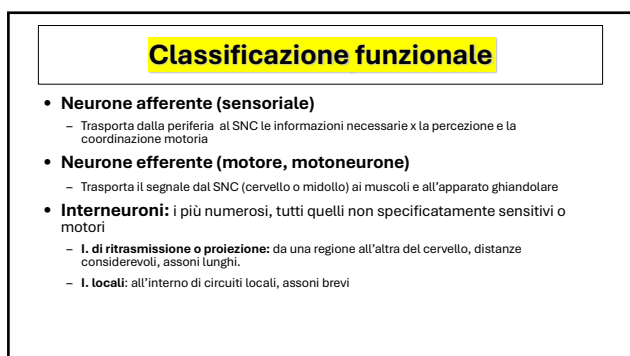
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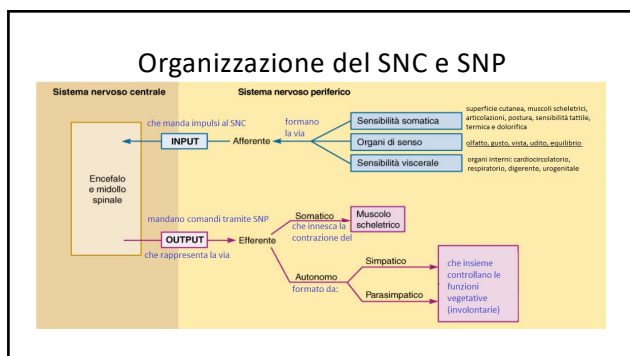
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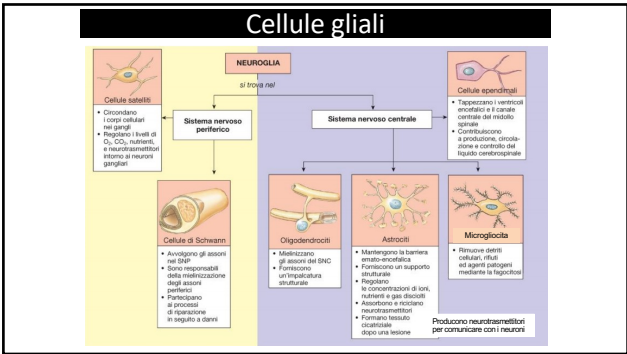
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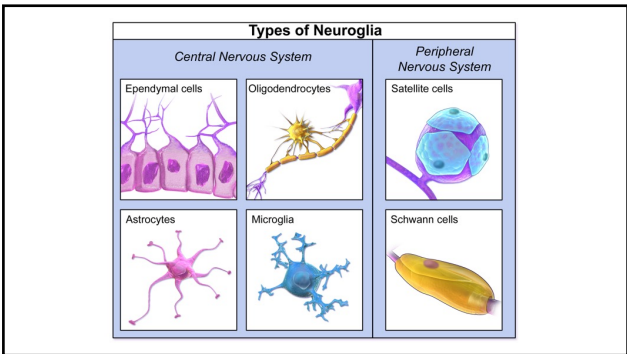
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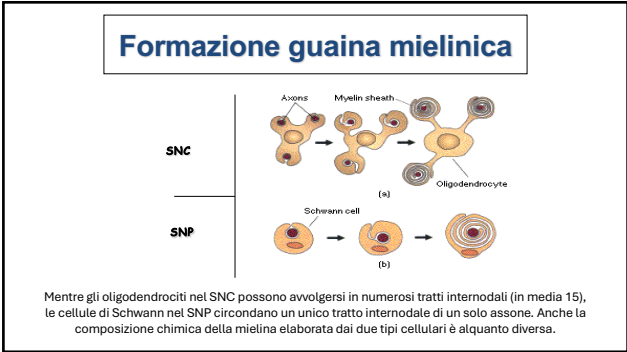
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### ALTRE CELLULE NERVOSE

- **POLIDENDROCITI:** sono chiamate anche cellule progenitrici degli oligodendrociti (OPC)
  - sono capaci di differenziarsi in oligodendrociti, neuroni\*, astrociti\*
  - rappresentano circa il 10-12% delle cellule
  - sono distribuite prevalentemente nell'ippocampo e nella corteccia
  - funzione non completamente definita

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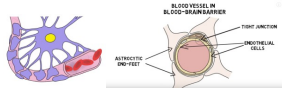
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### Barriera ematoencefalica



Come è stata scoperta: osservando che alcuni coloranti vitali non erano in grado di penetrare nel tessuto cerebrale se iniettati nel sistema circolatorio

La BEE (in inglese BBB) è formata principalmente dalle cellule endoteliali dei vasi - unite da tight junction - e dagli astrociti

Mantiene stabile l'ambiente intorno ai neuroni e impedisce il passaggio di sostanze tossiche (es. norepinefrina e glutammato circolanti le cui concentrazioni ematiche possono aumentare notevolmente per stress e persino dopo i pasti)

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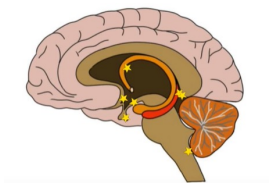
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### Dove la barriera emato-encefalica non serve



In alcune regioni del cervello la barriera ematoencefalica non è presente, cioè laddove c'è bisogno che le cellule nervose entrino in diretto contatto con il flusso sanguigno, per es. nelle cellule ipotalamiche neurosecretorie in generale ma forse anche in altre regioni cerebrali

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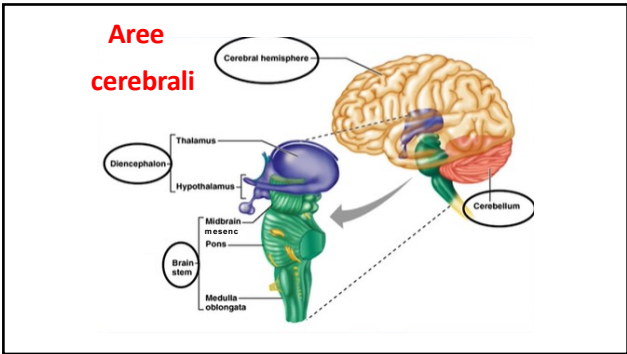
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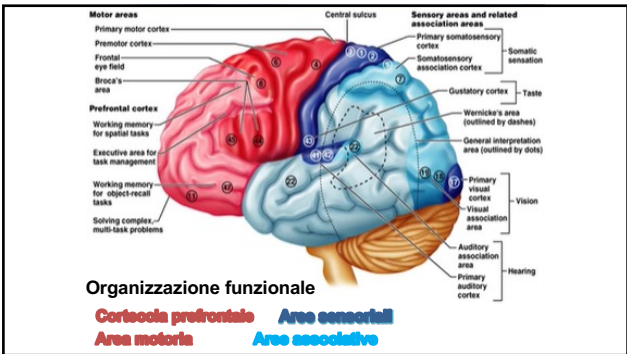
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