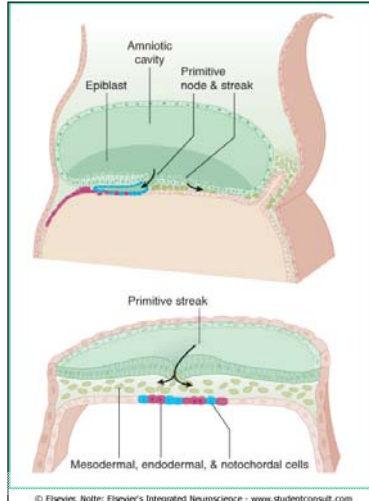


原腸形成

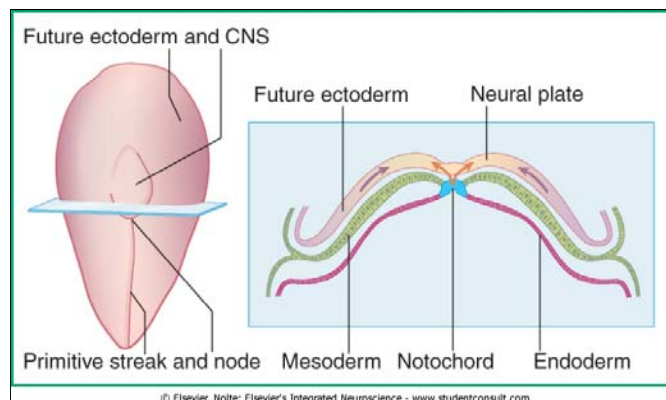


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神経板の誘導

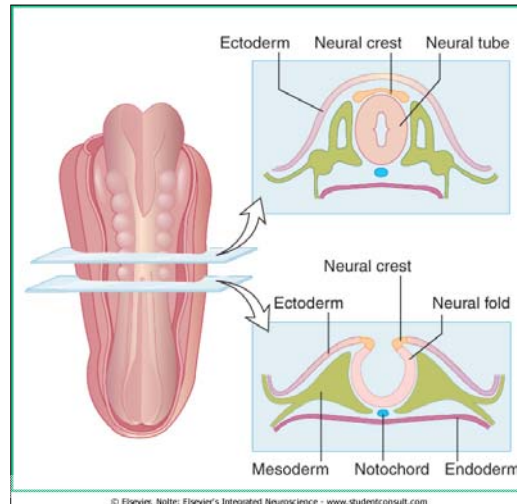


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神経管の形成

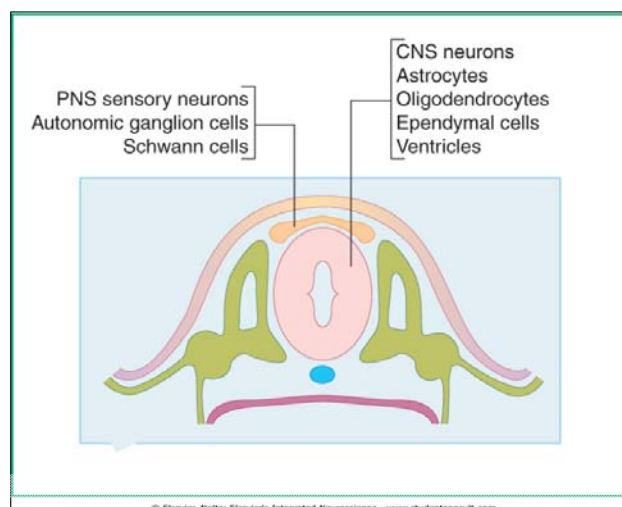


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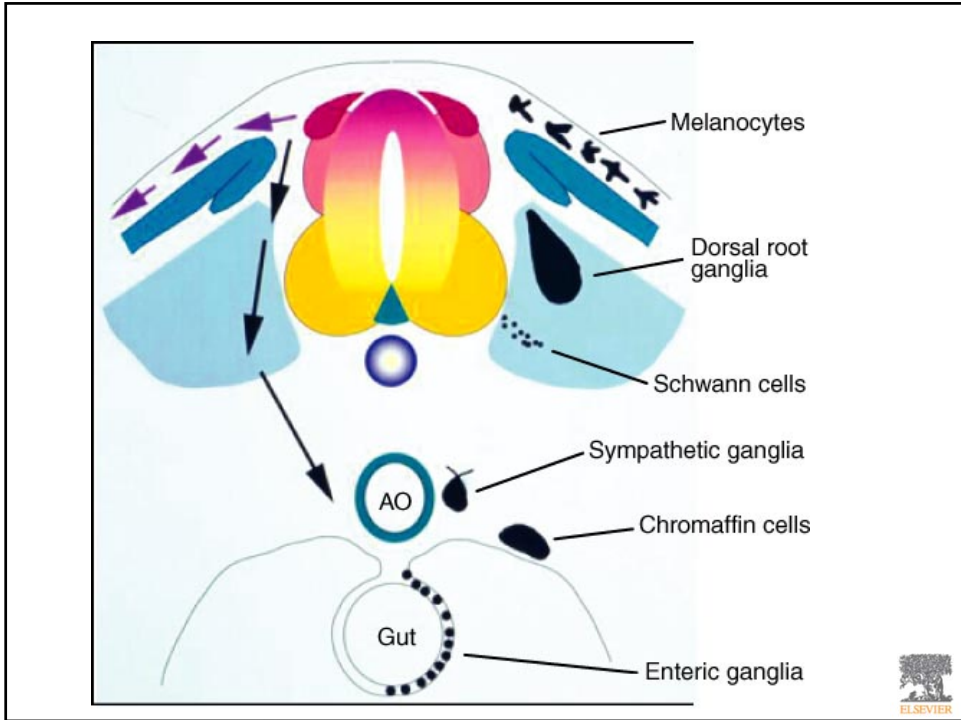
神経管と神経堤から由来する細胞



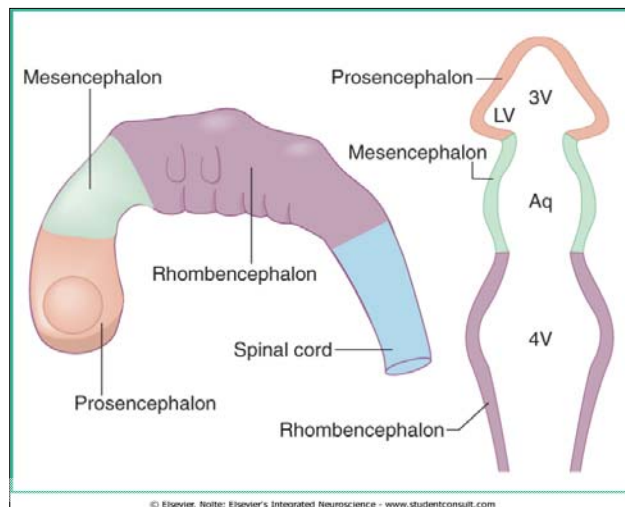
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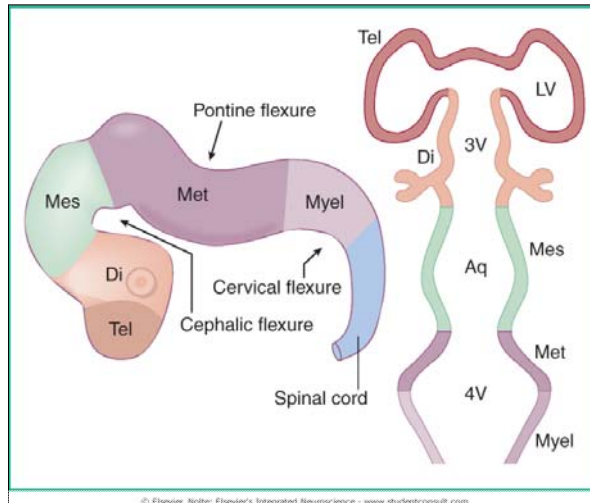




第4週



第6週

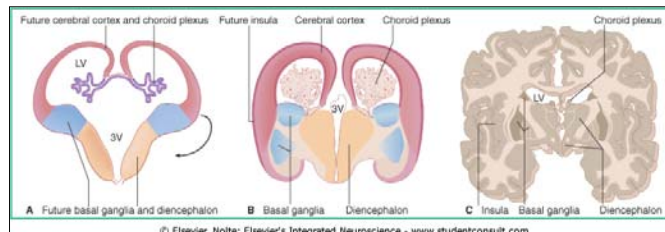


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胎生2ヶ月

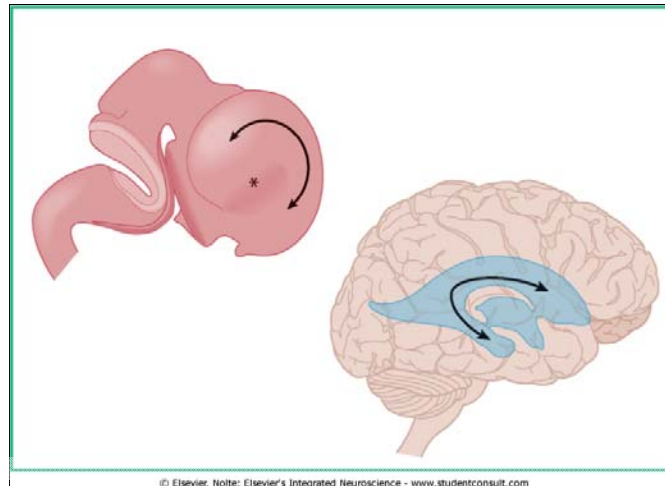


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終脳と大脳半球

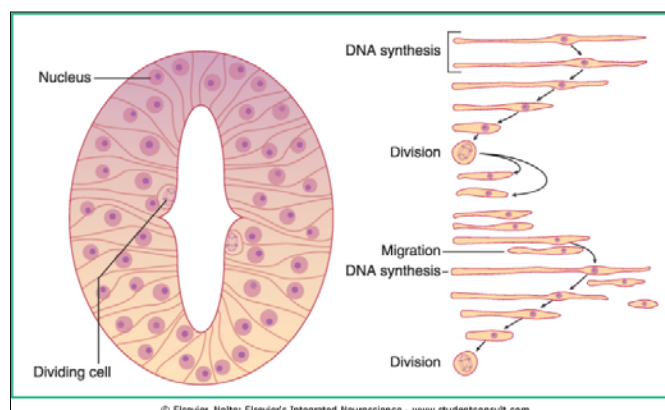


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幹細胞の分裂

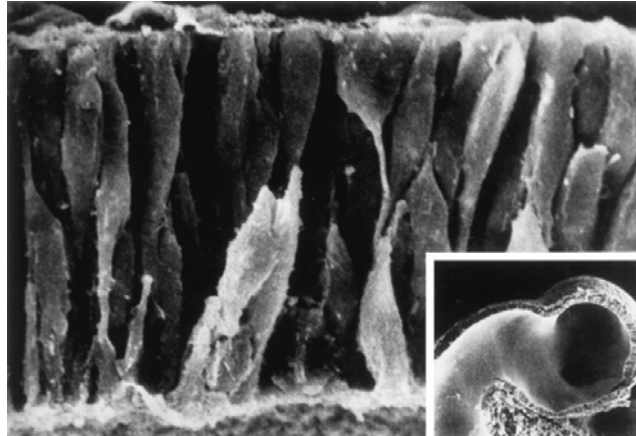


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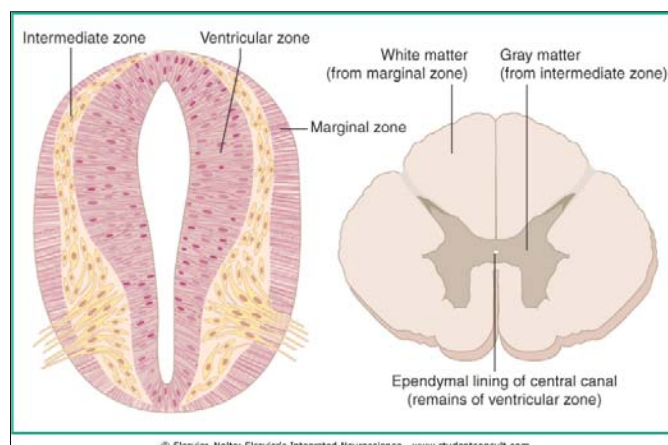
Pseudostratified columnar epithelium in the ventricular zone



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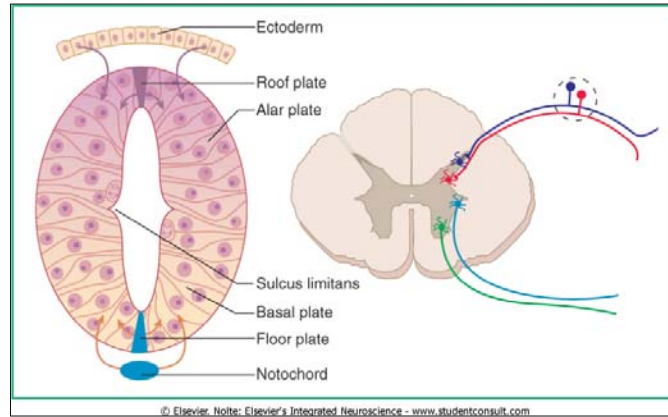
神経管の細胞



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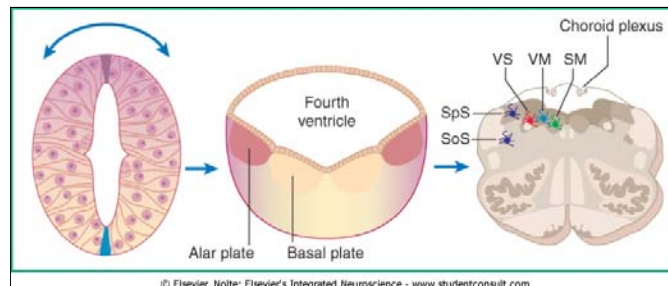
脊髄の分化(脊索)



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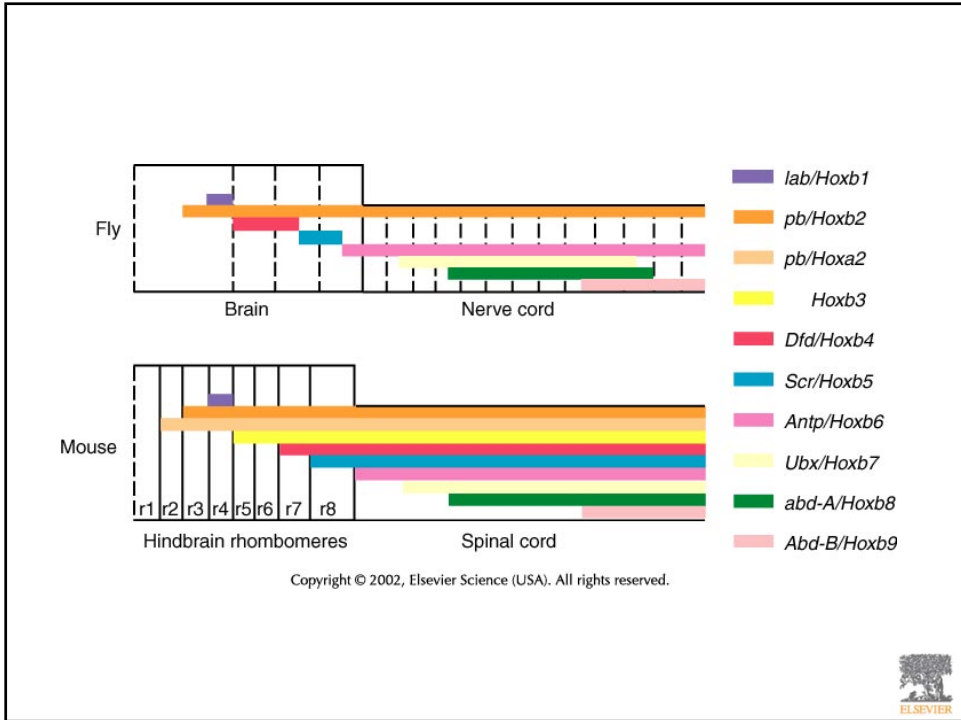
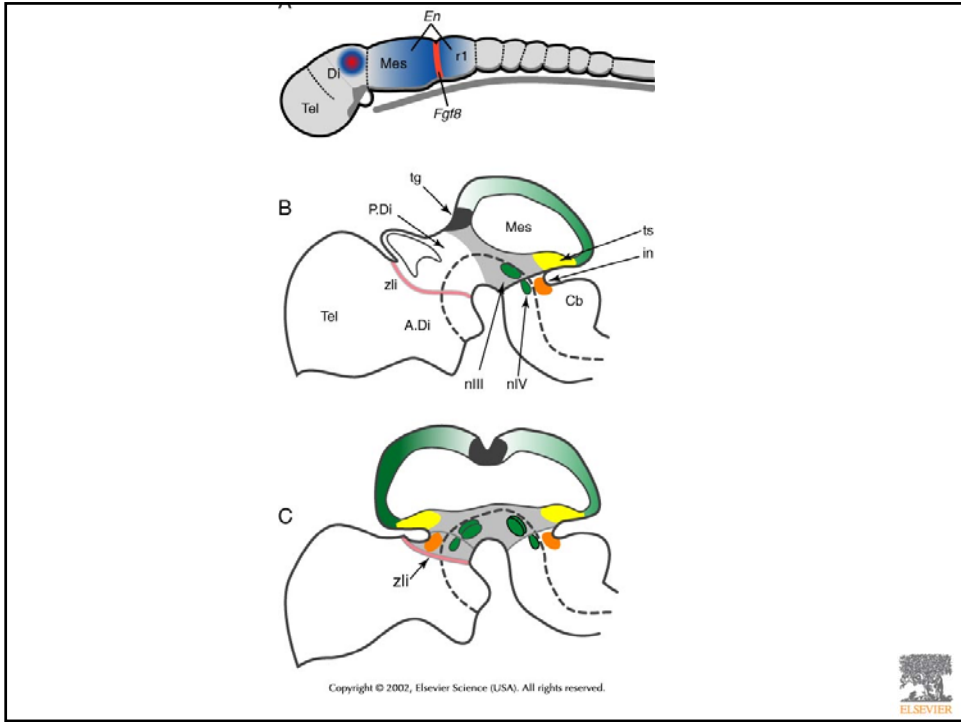


菱腦の分化

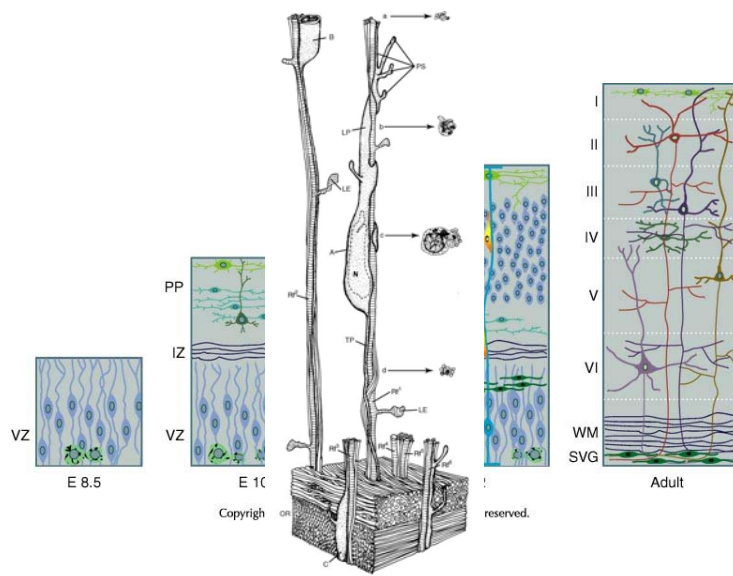


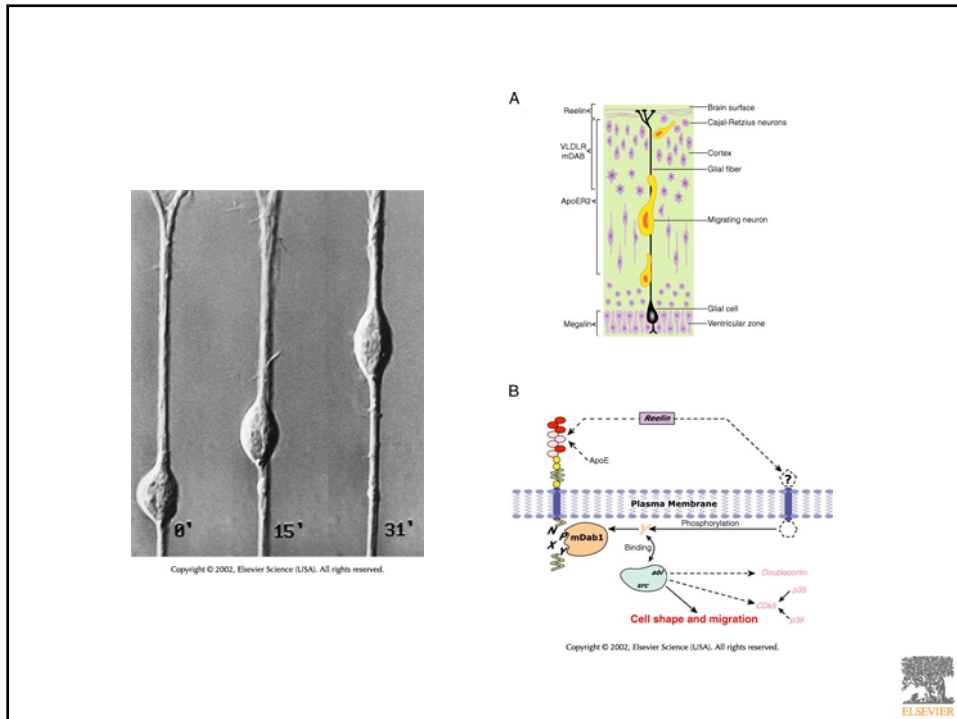
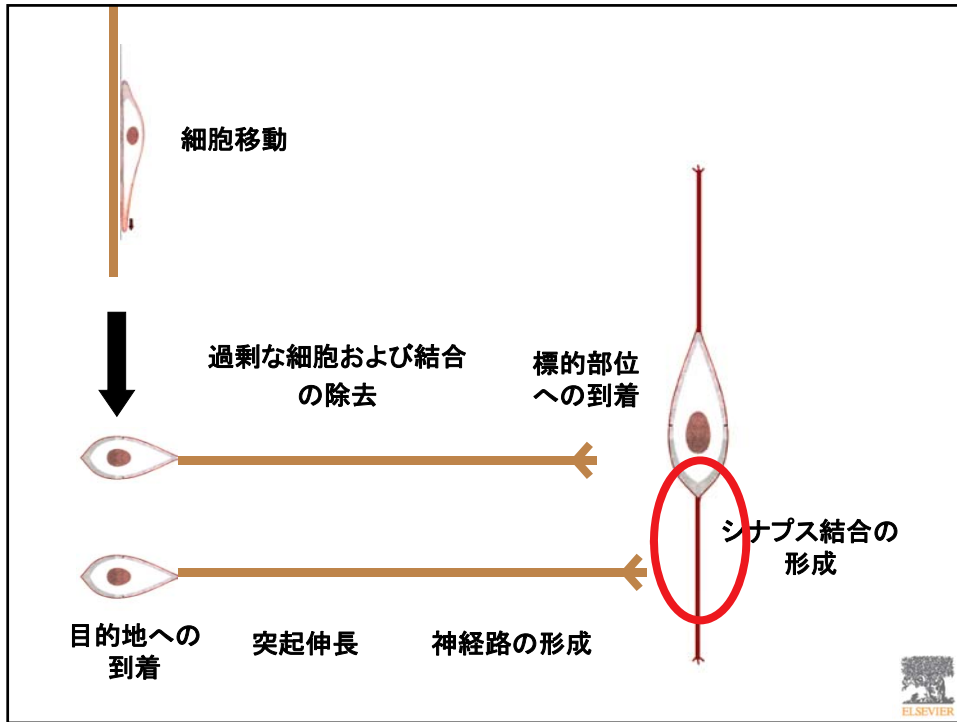
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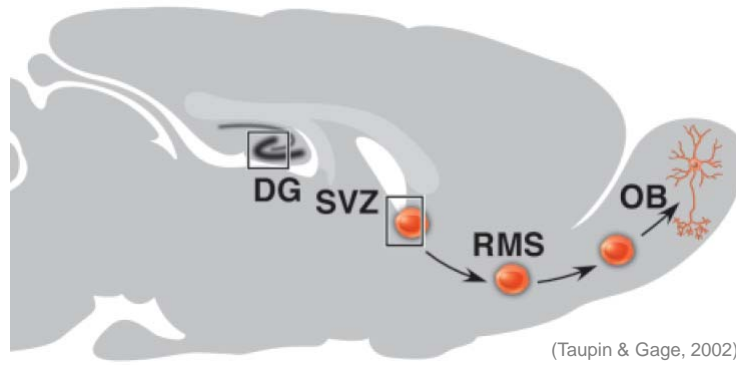


Cell migration





成体ラット脳における神経新生



DG: Dentate Gyrus (歯状回)

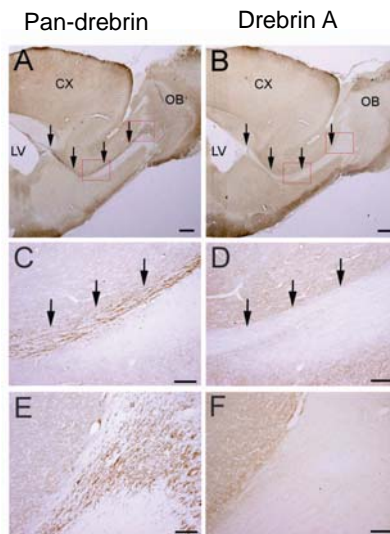
SVZ: Subventricular Zone (脳室下帯)

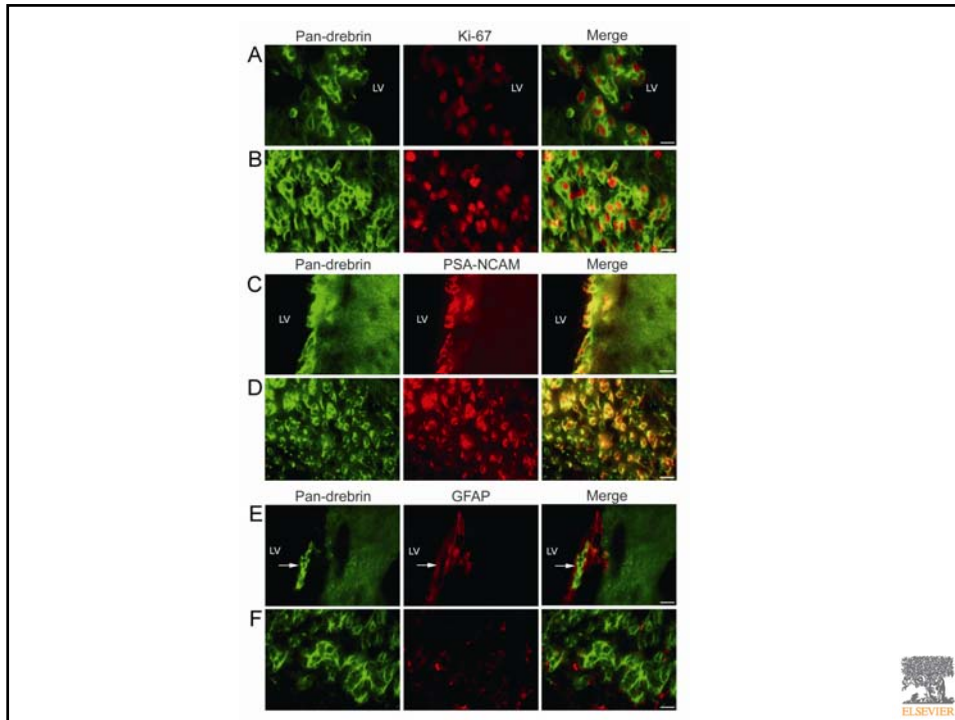
RMS: Rostral Migratory Stream

OB: Olfactory Bulb (嗅球)



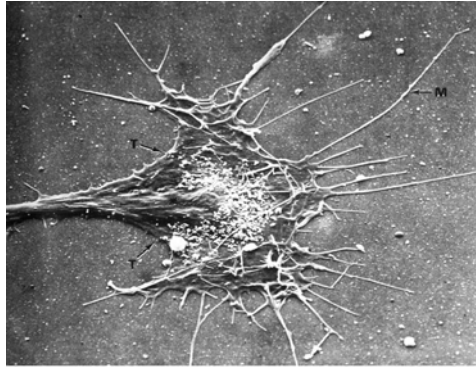
Drebrin E isoform is expressed in RMS





Growth cone and Path finding

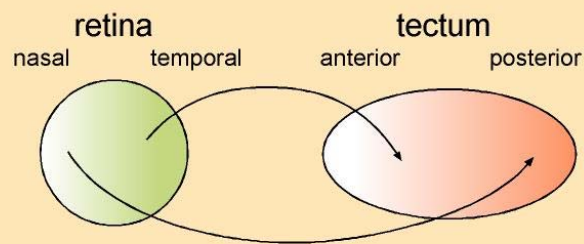


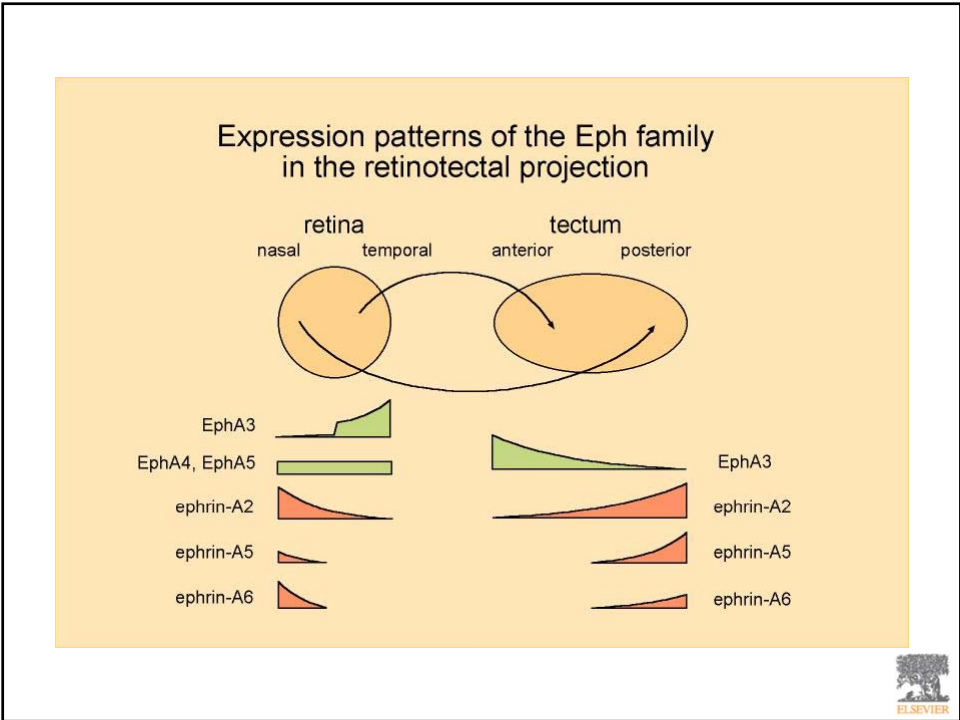
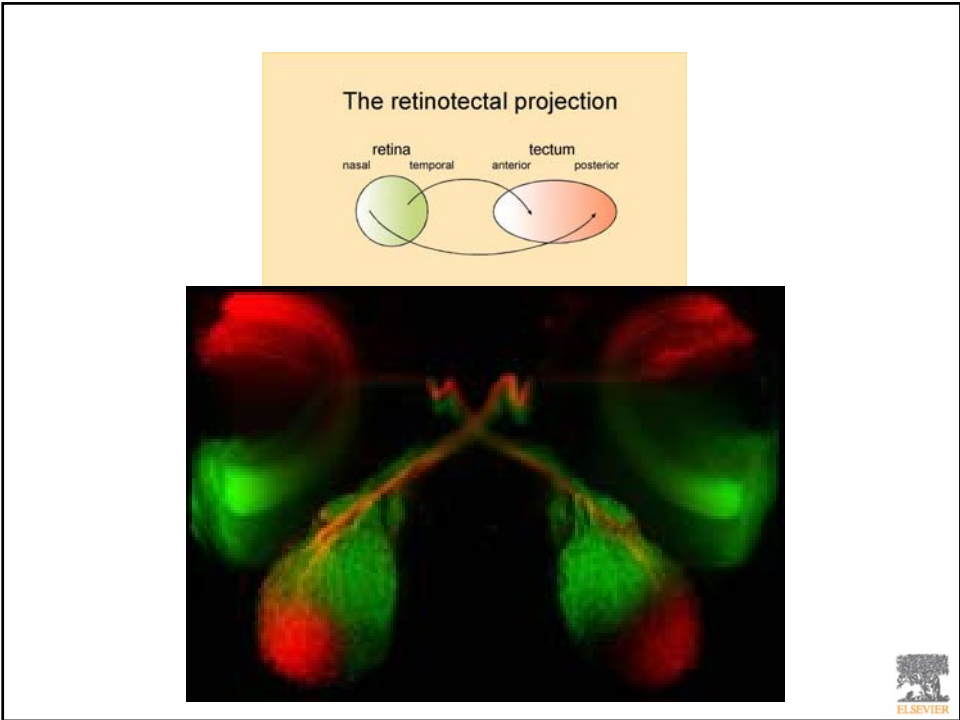


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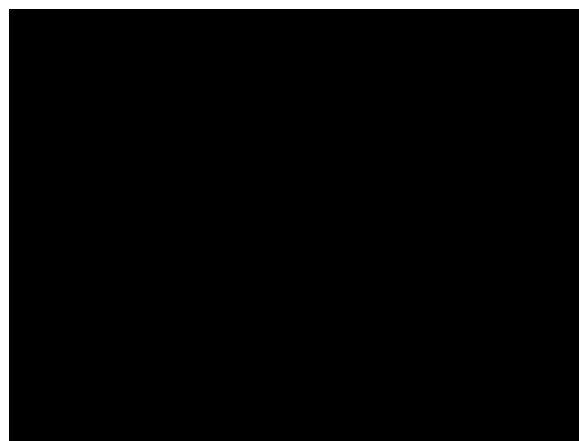
The retinotectal projection

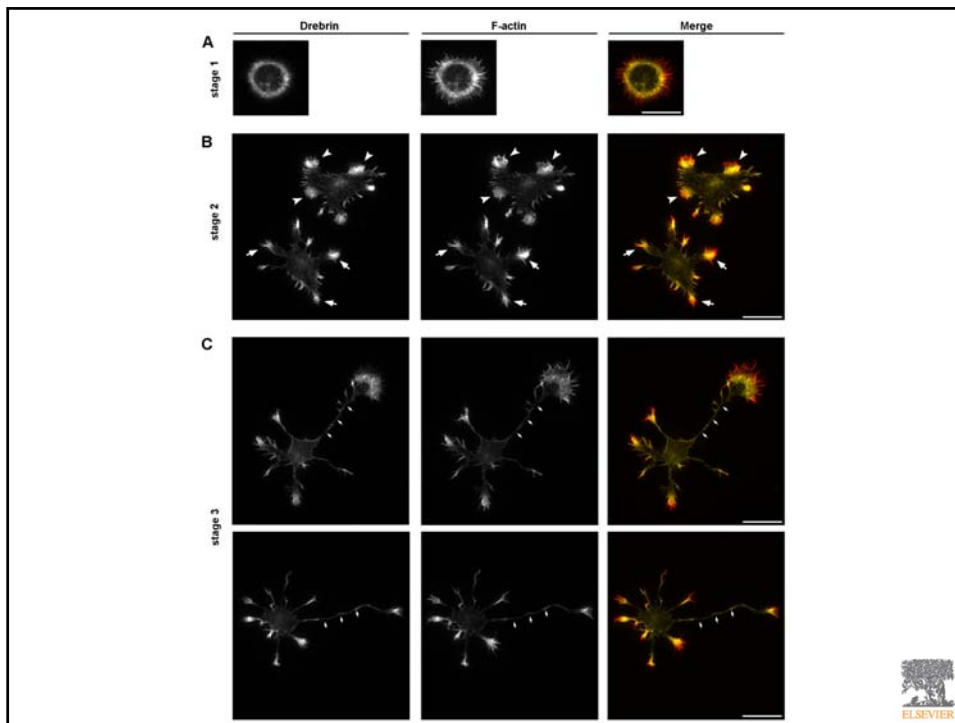




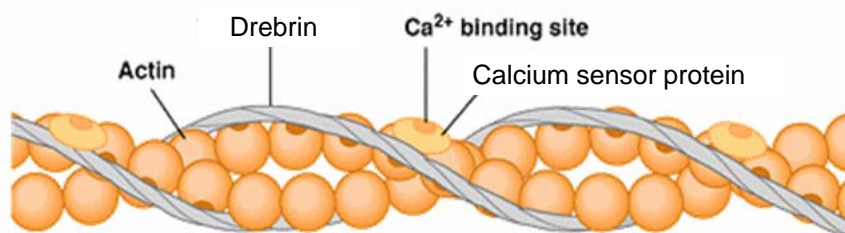
in vivo Timelapse Imaging of
Retinotectal Axon Pathfinding
in *Xenopus laevis*

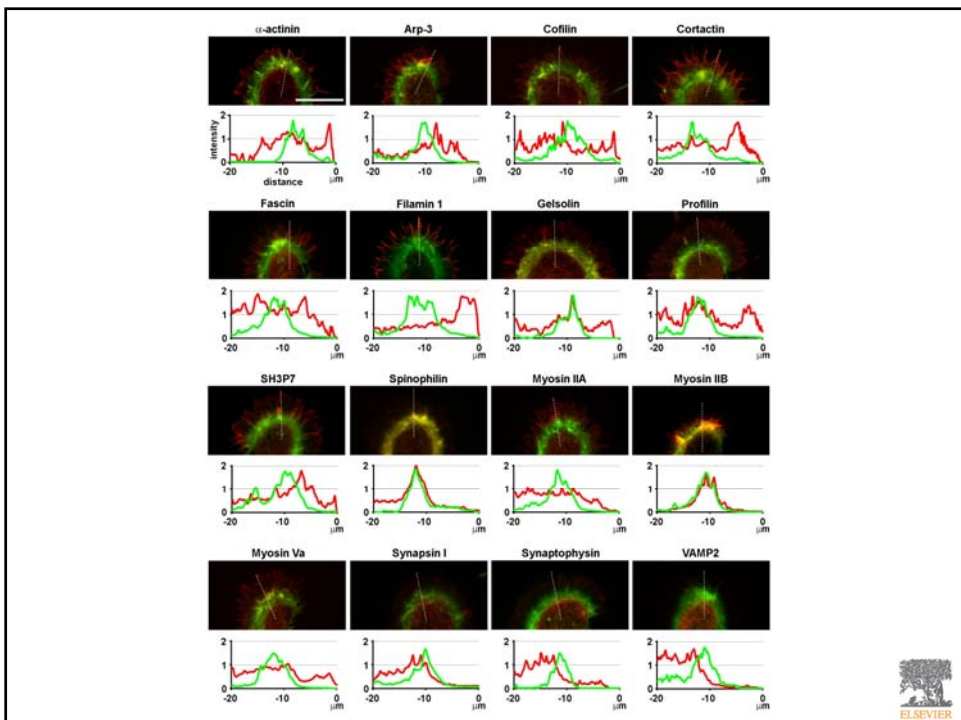
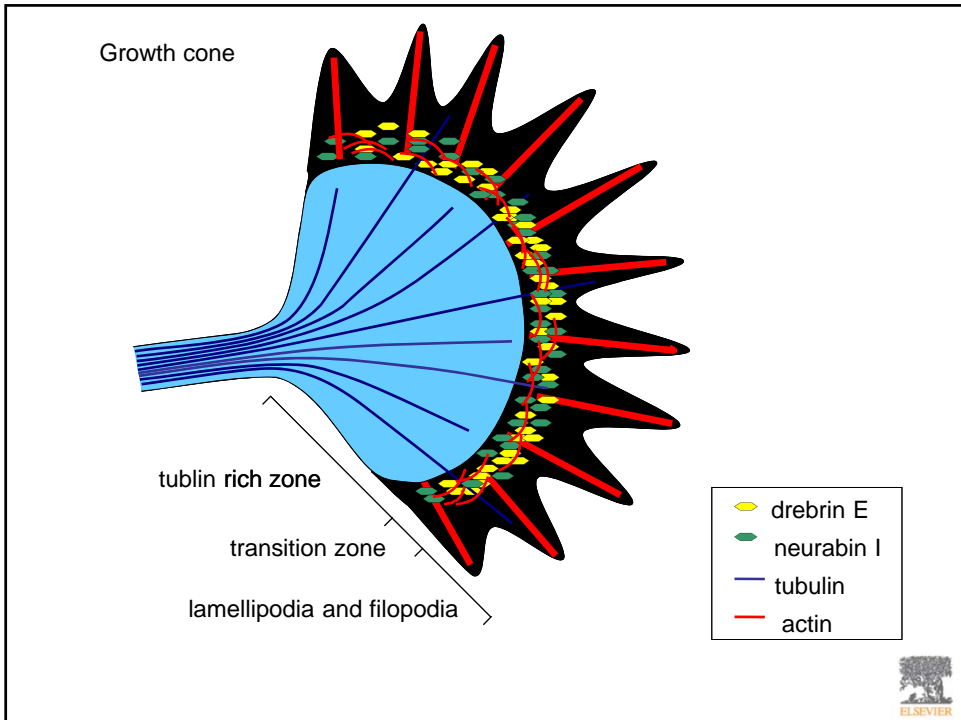
Sonia Witte
Harris/Holt Labs
Department of Anatomy
Cambridge University





Actin filament in neurons



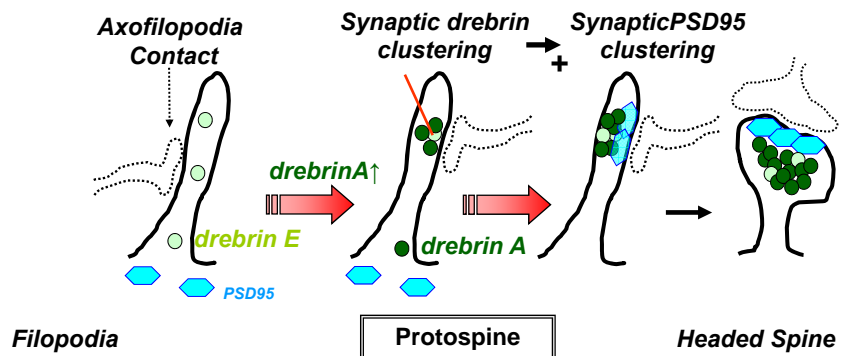


Synapse formation

Spine formation



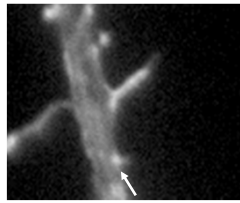
FilopodiaからSpineへ



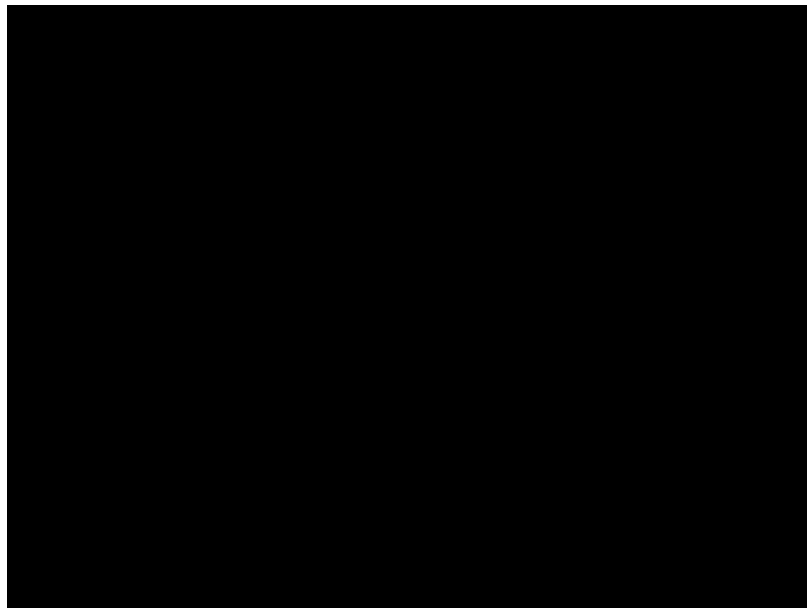
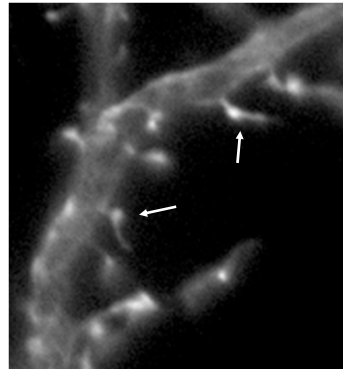
Takahashi et. al. J. Neurosci. 2003



diffuse-type → *cluster-type*

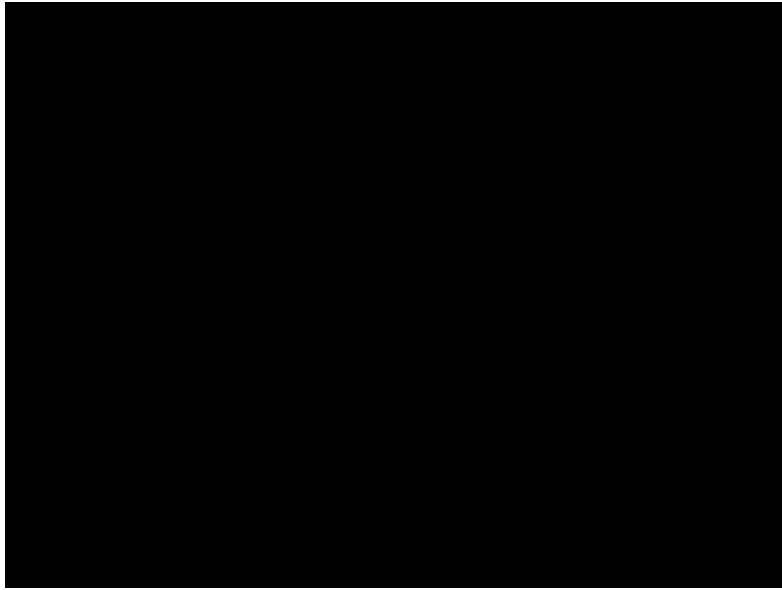


cluster-type → *spine*



A. Matus (Neuron)





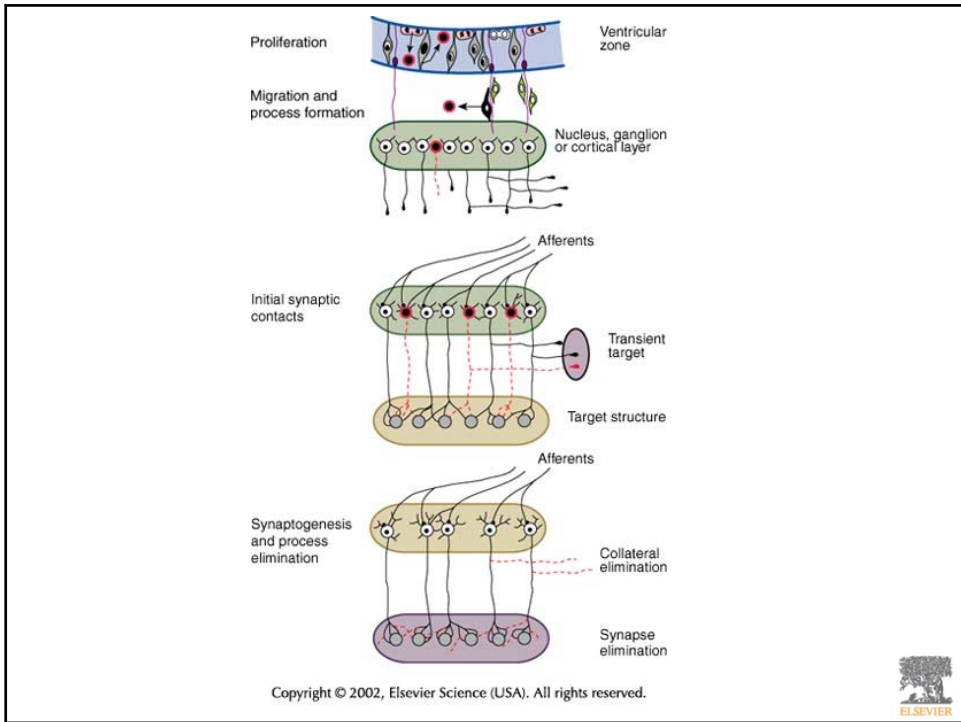
A. Matus (Neuron)



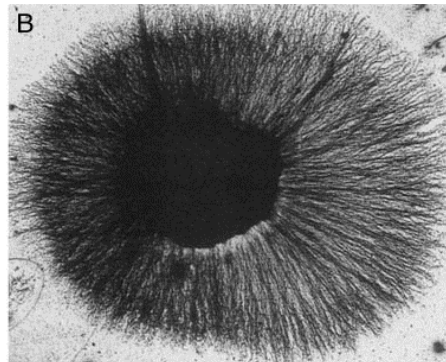
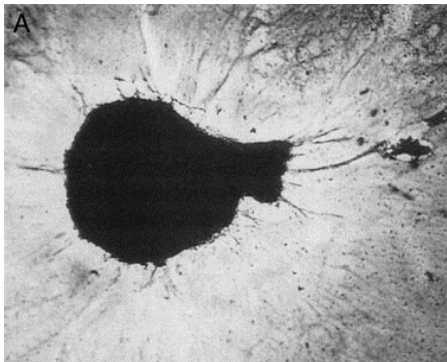
Elimination

Synapse elimination, programmed
cell death and neurotrophic factor





Discovery of NGF



その他の神経栄養因子

- BDNF (Brain derived neurotrophic factor)
- NT3 (Neurotrophic factor 3)
- NT4/5 (Neurotrophic factor 4/5)
- GDNFファミリー



神経栄養因子受容体

- TRK A NGF
- TRK B BDNF, NT-4/5
- TRK C NT3
- P75 (low affinity NGF receptor)

