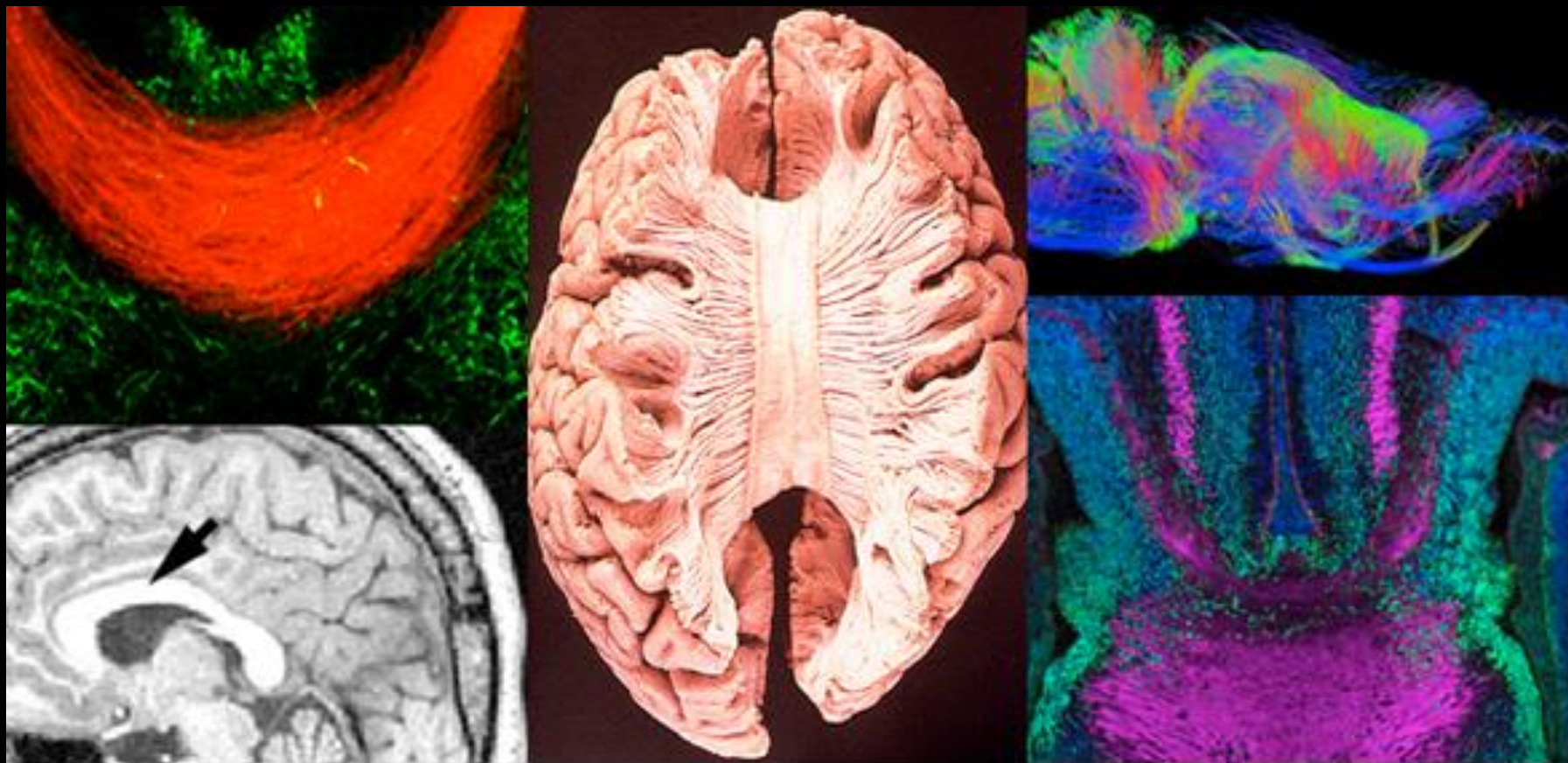
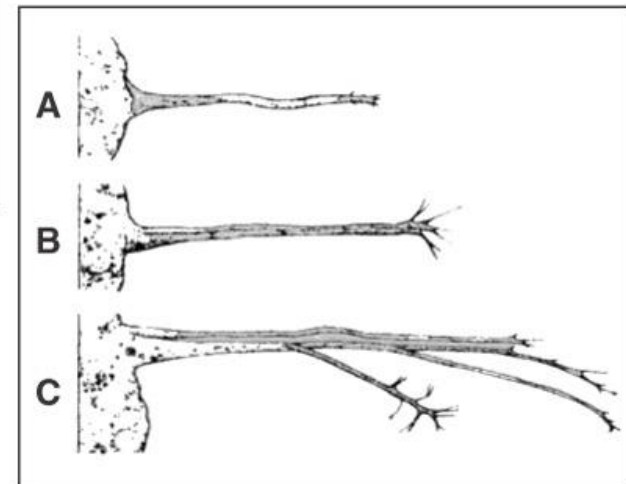
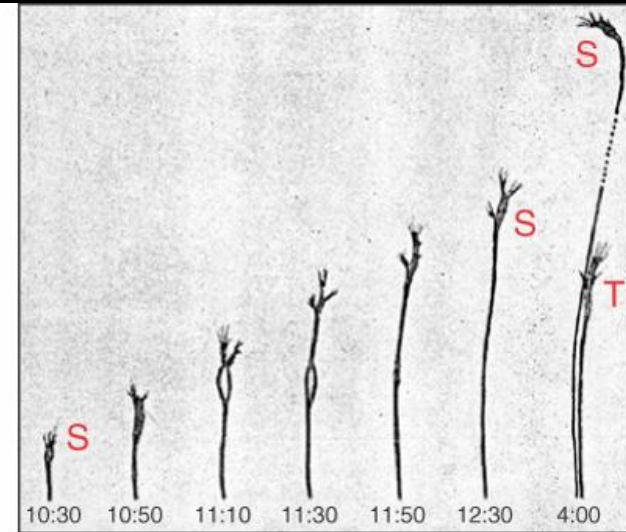
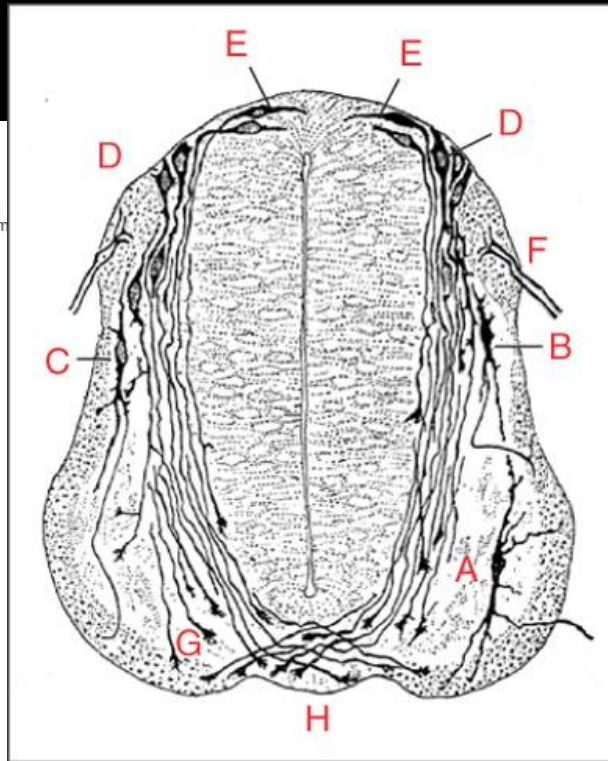
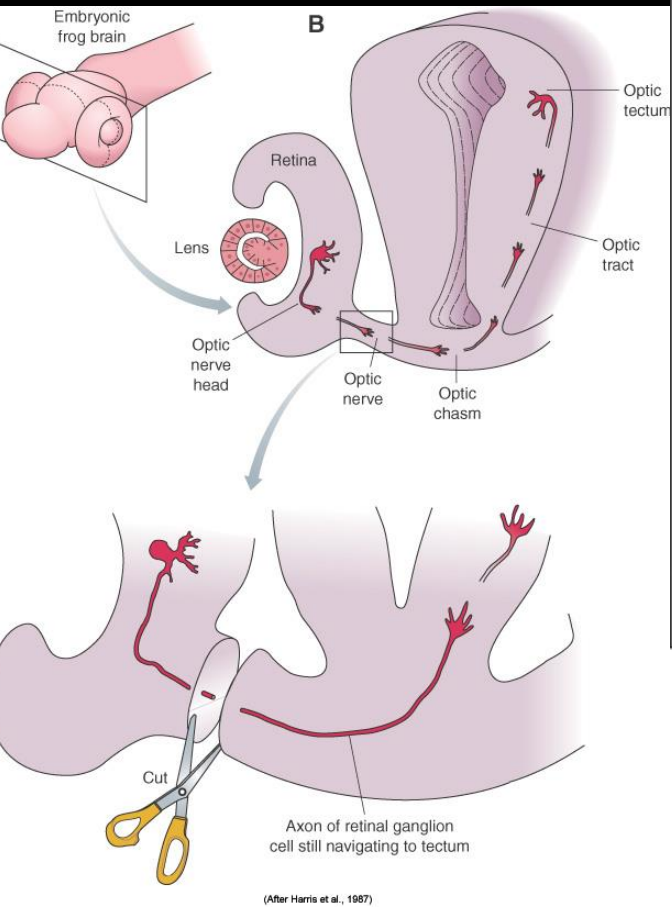
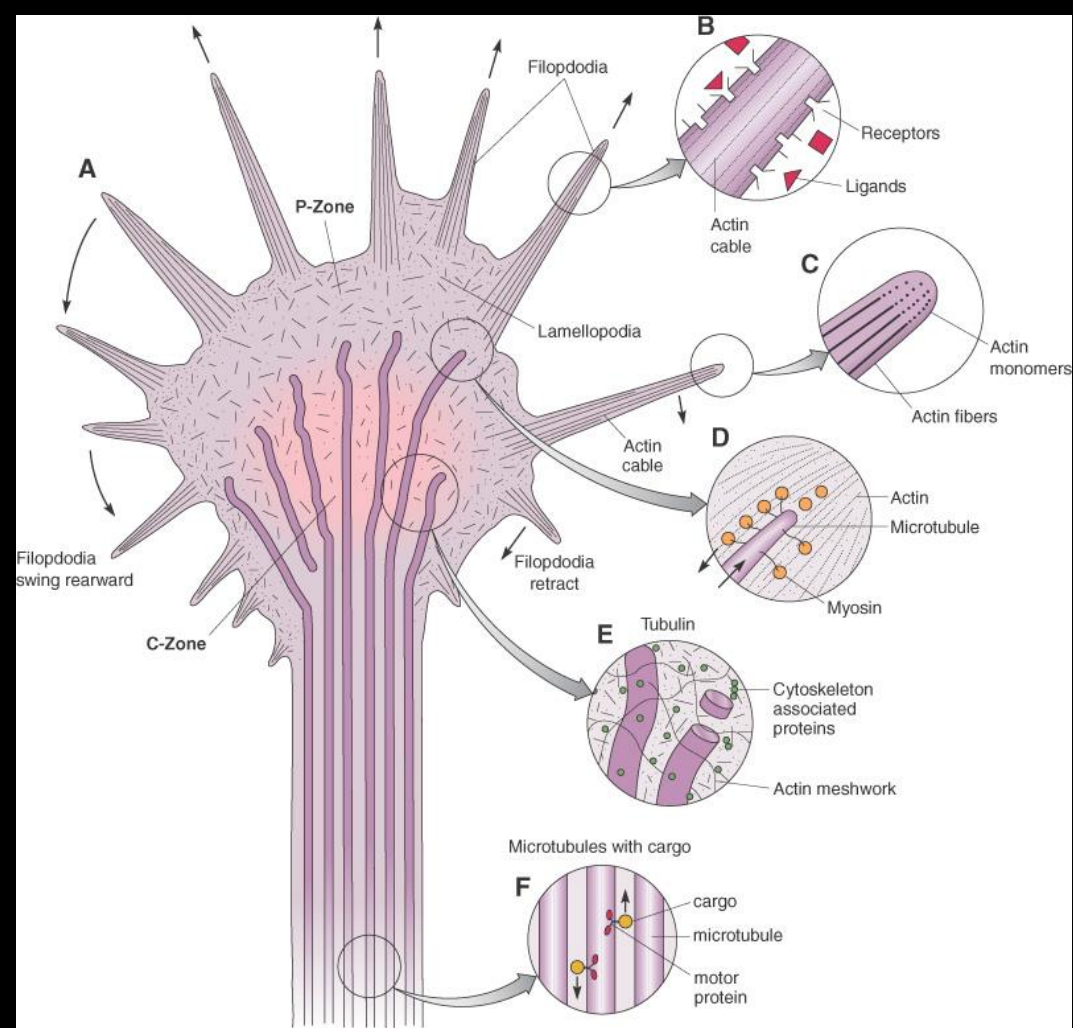


Куда растёт аксон

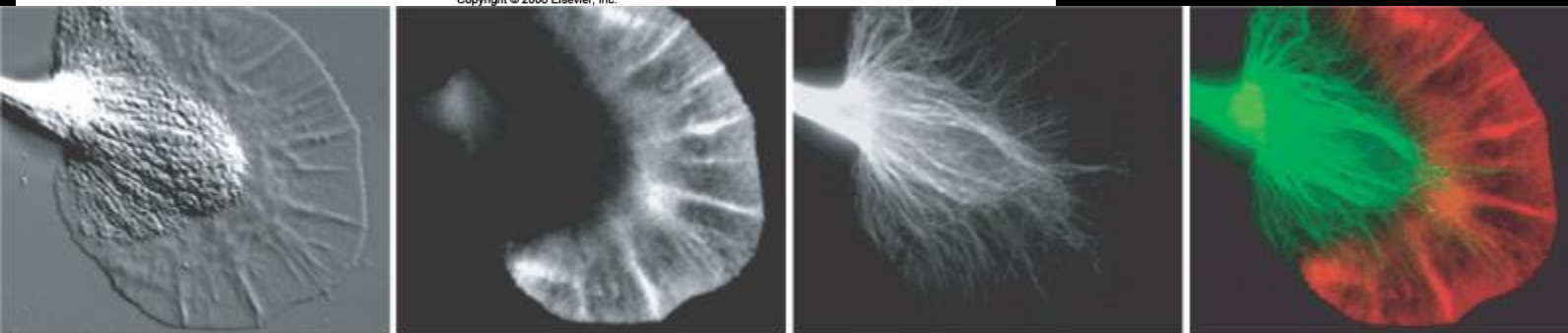
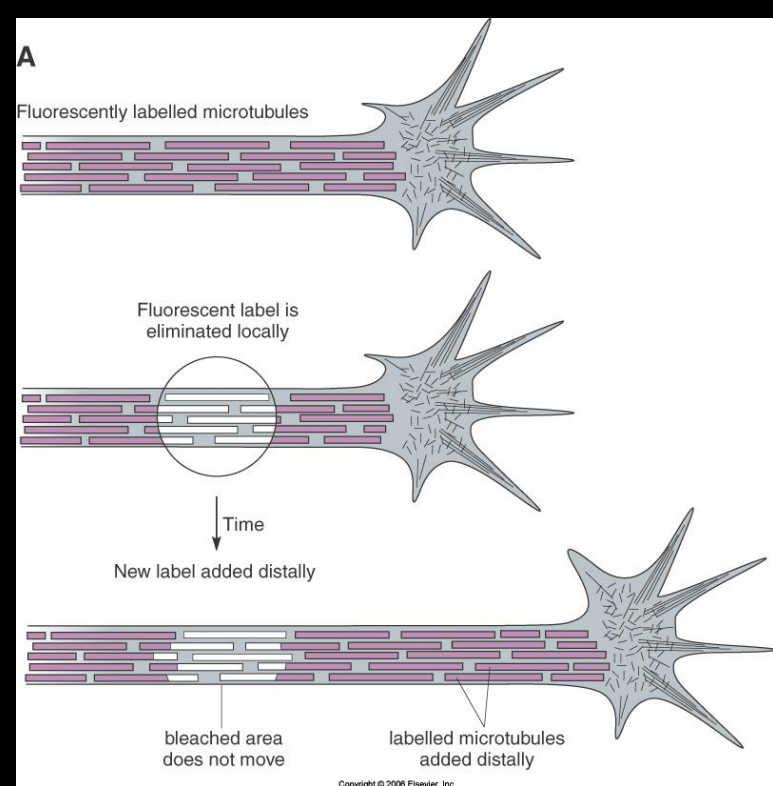




(From Ramon y Cajal, 1890; Harrison, 1910; Speidel, 1941)

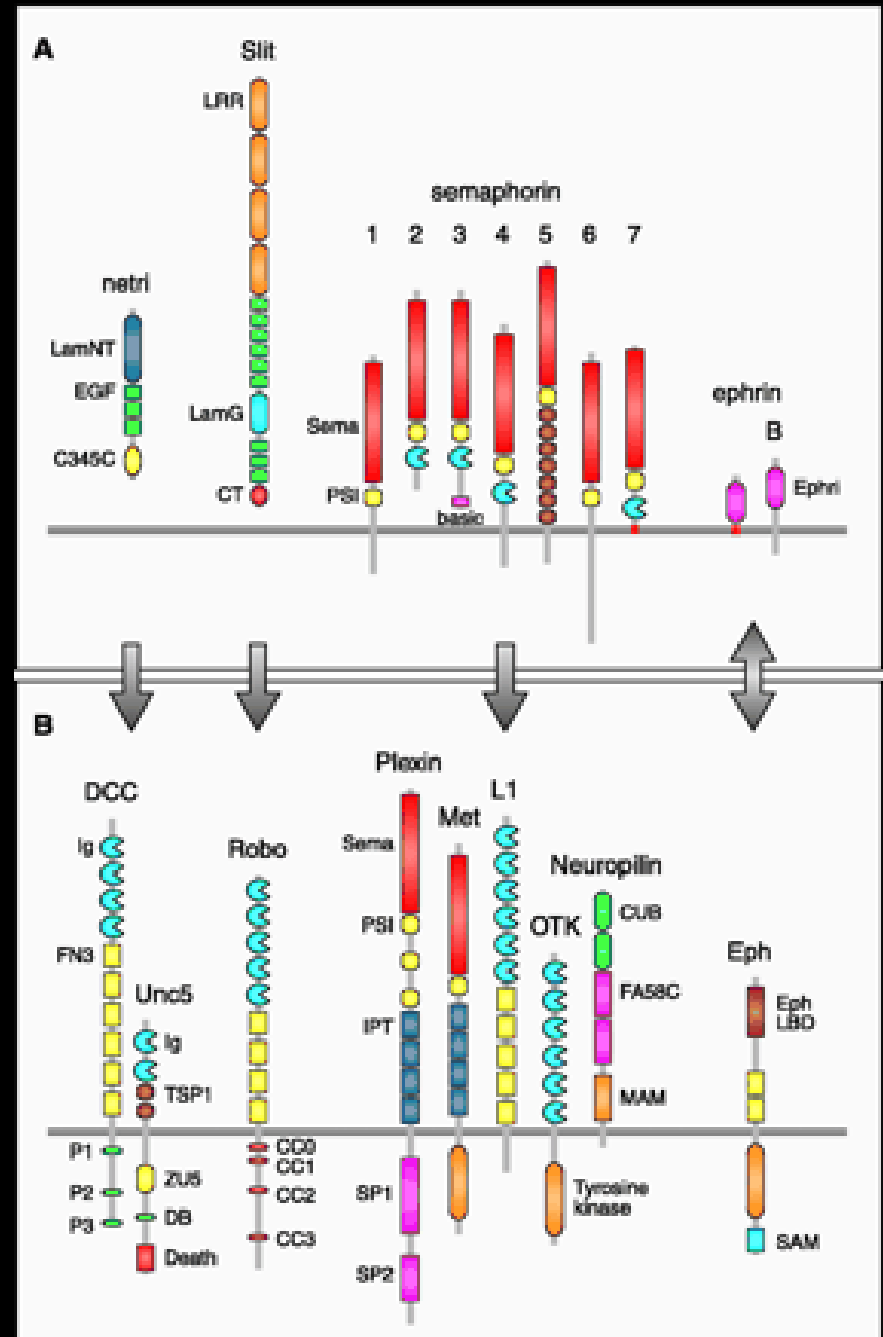


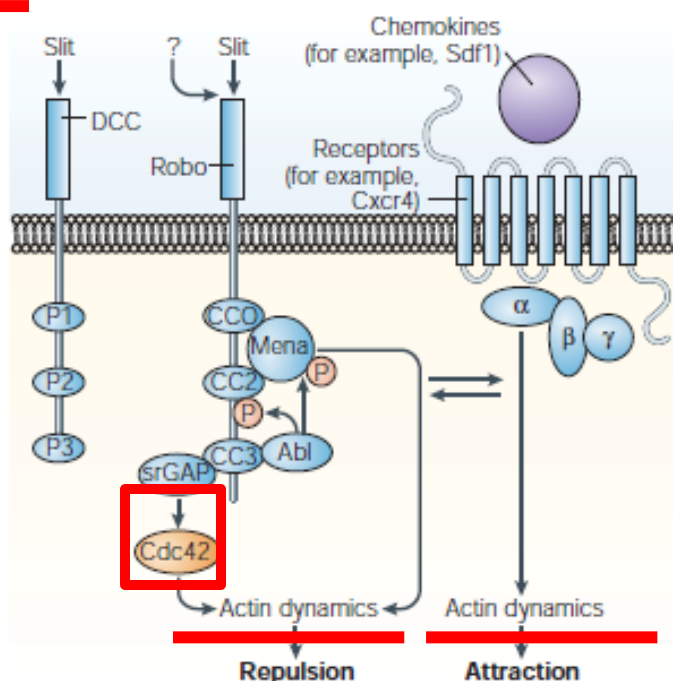
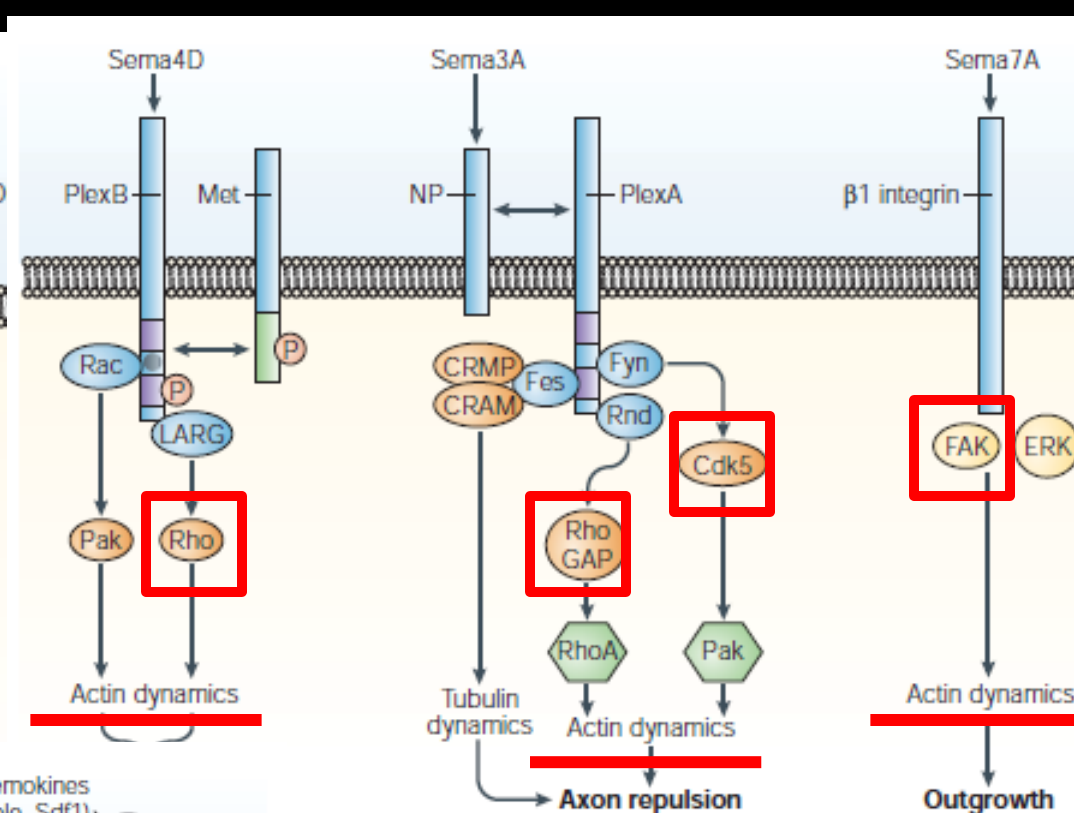
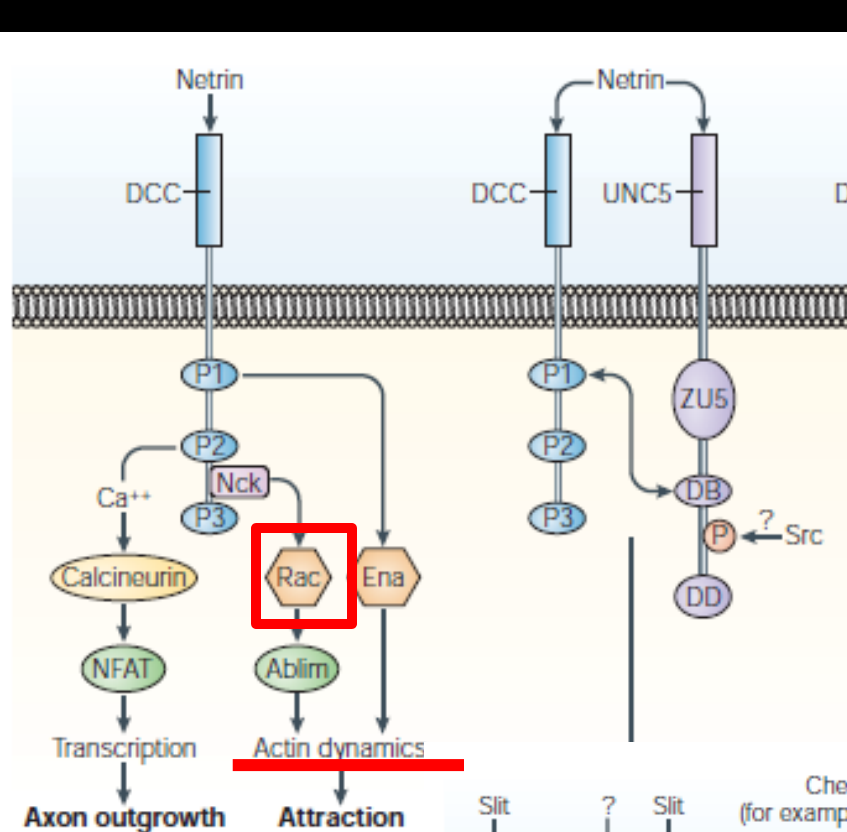
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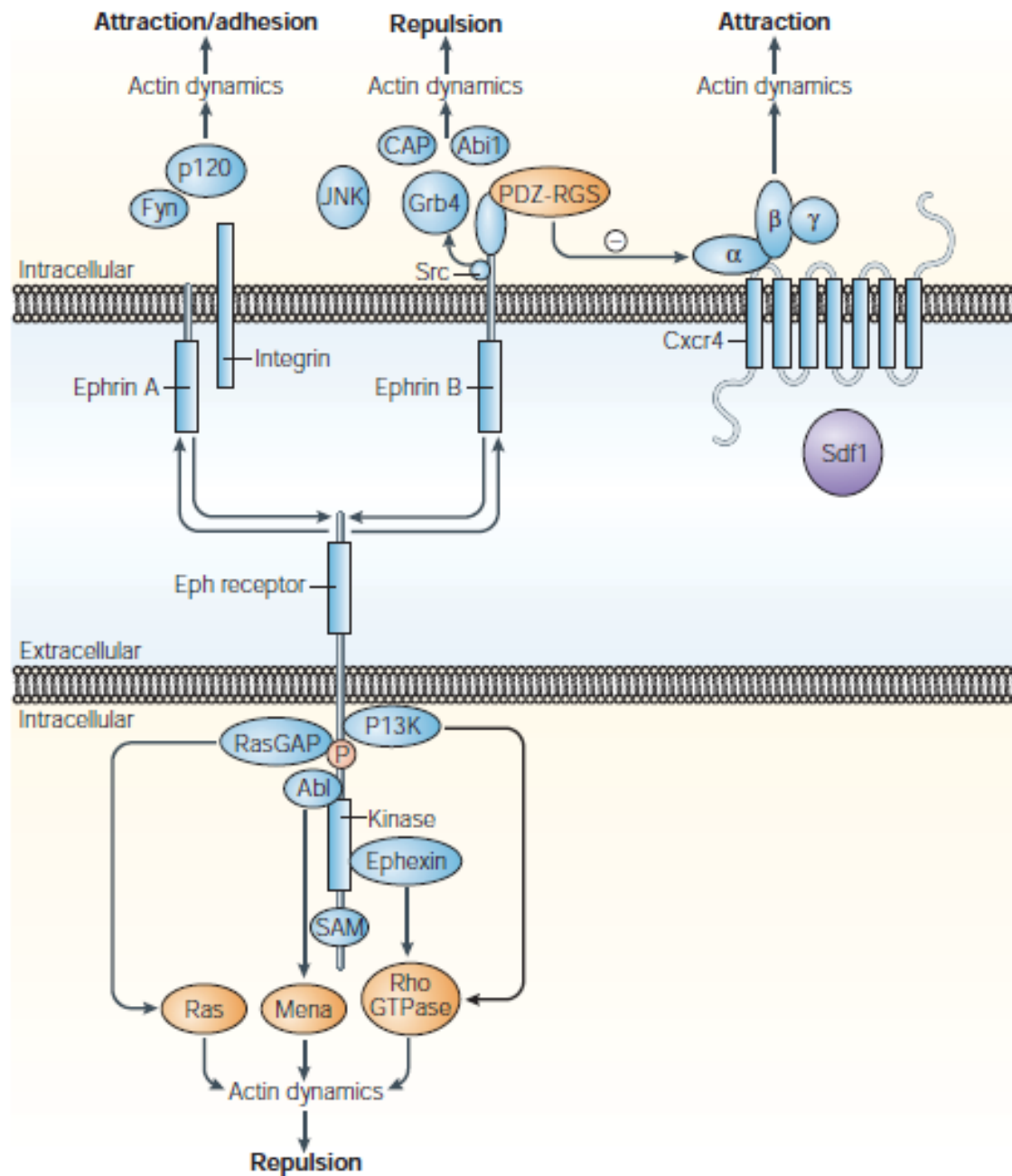


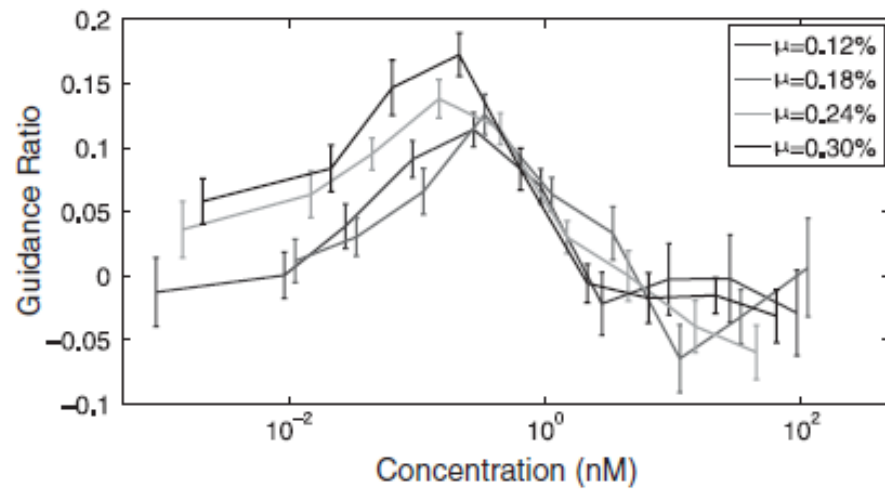
(From Paul Forscher)

- **Netrins** – рецепторы DCC, Unc...
- **SLIT** - рецепторы Robo
- **Semaphorins** - 5 подсемейств
- **ephrins (A +B)** – рецепторы EphA, EphB
- **Cell Adhesion Molecules** (N-CAM, L1, Fasciclins)



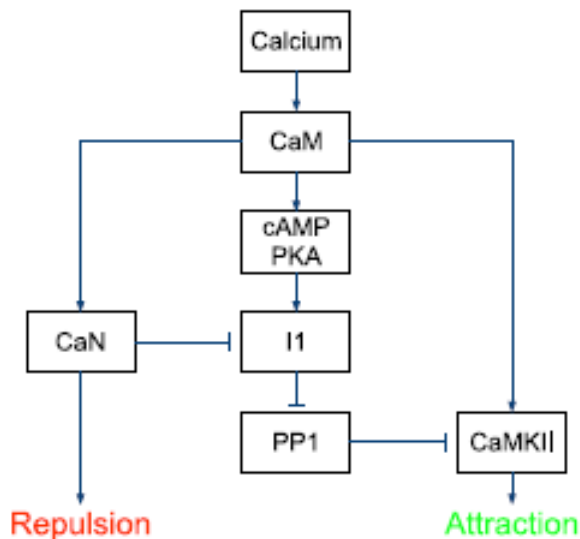






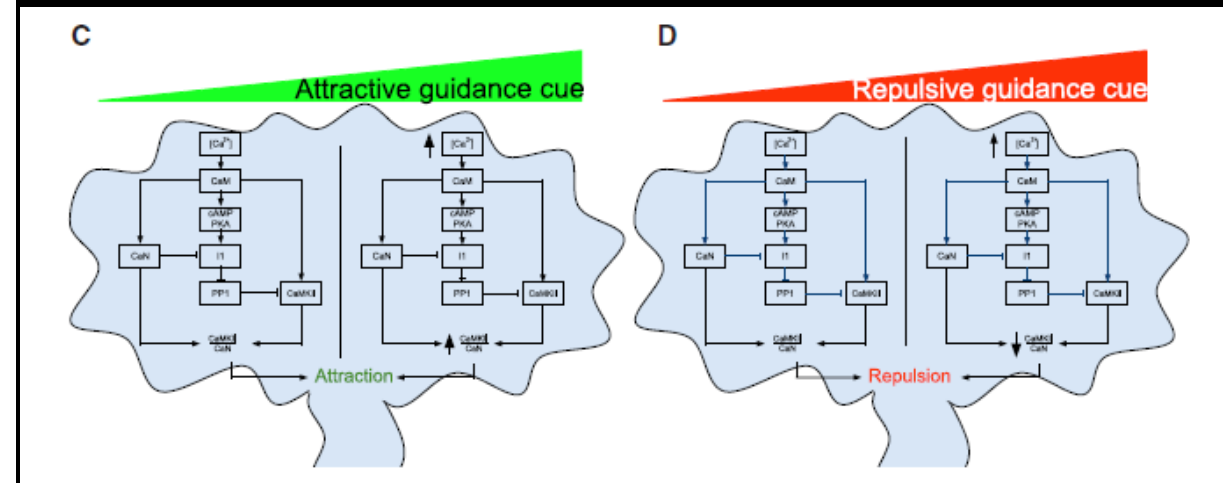
Bayesian Model of Chemotaxis

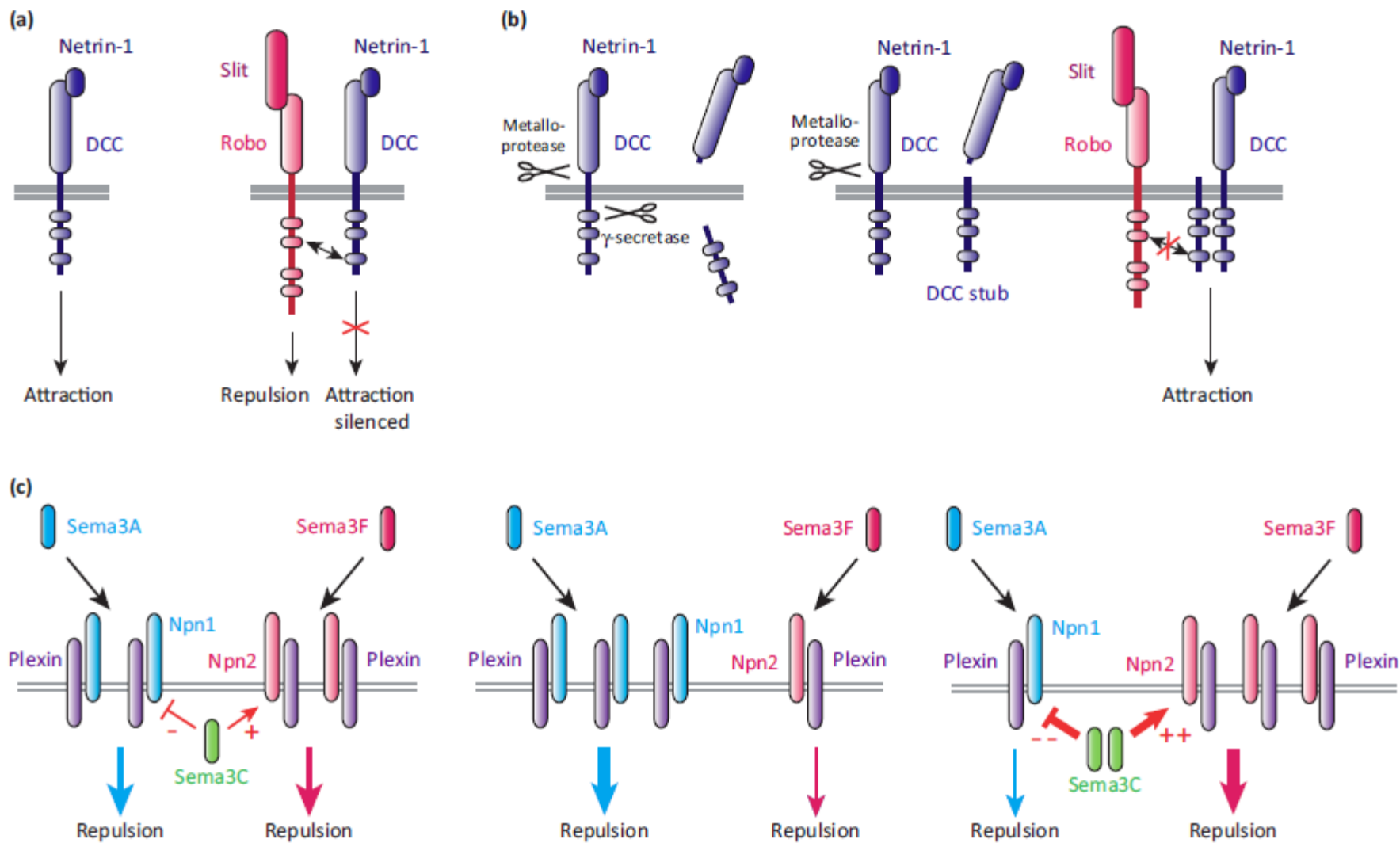
Yuan, J et. al. Neural Computation, 25, 833-853

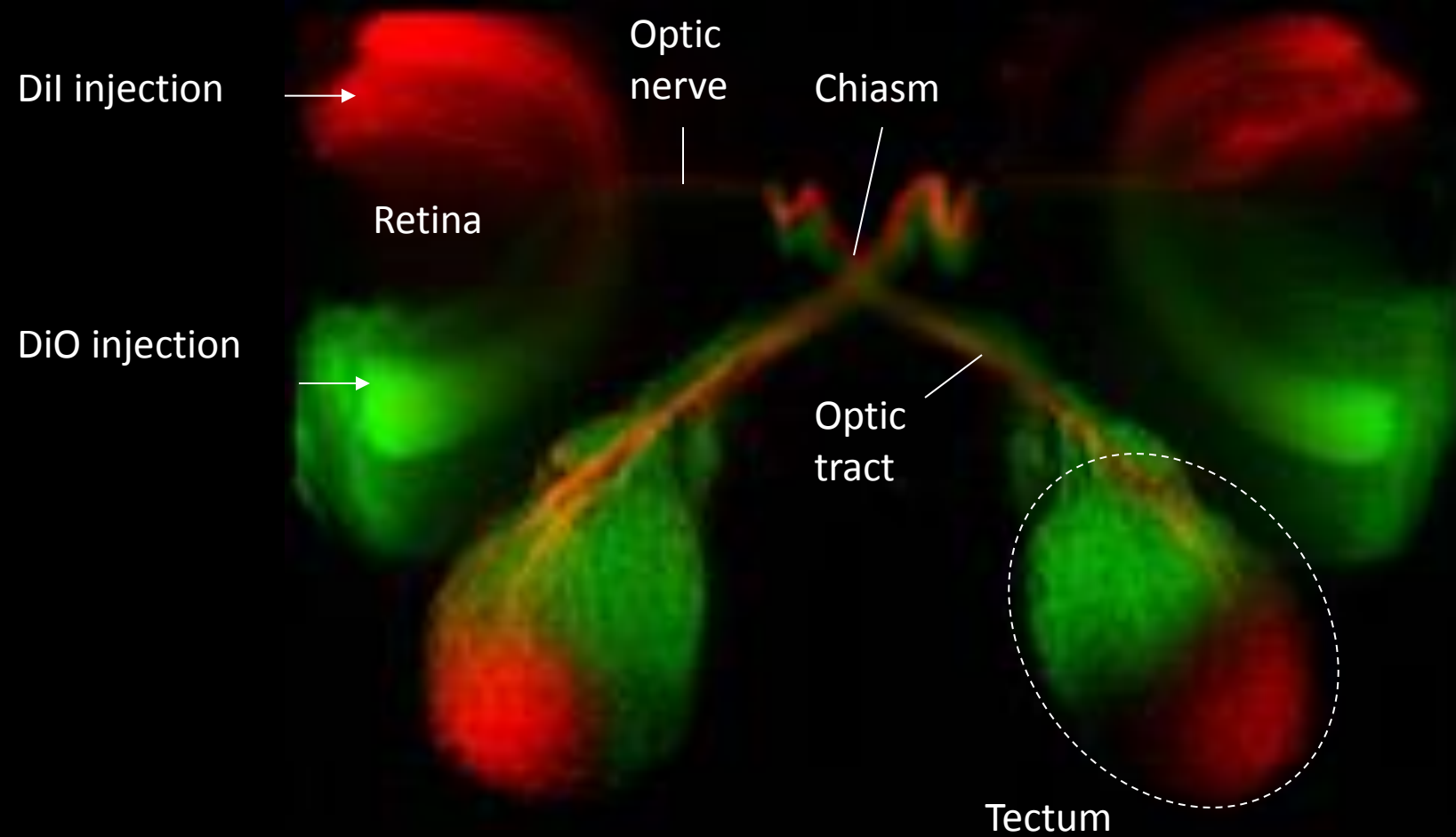


cAMP and Ca modulation

Thompson, A.W et. Al. Molecular and Cellular Neuroscience, 47, 45-52

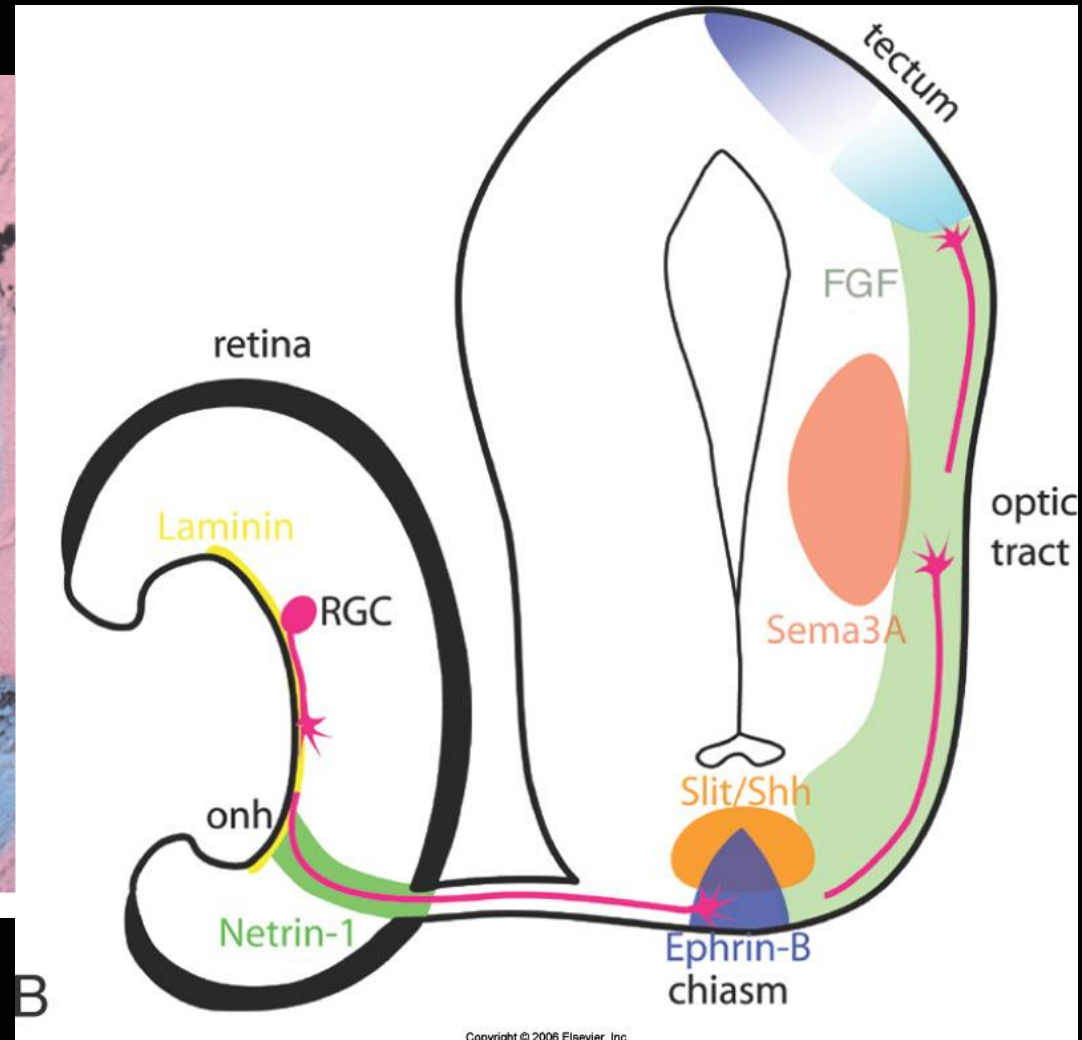


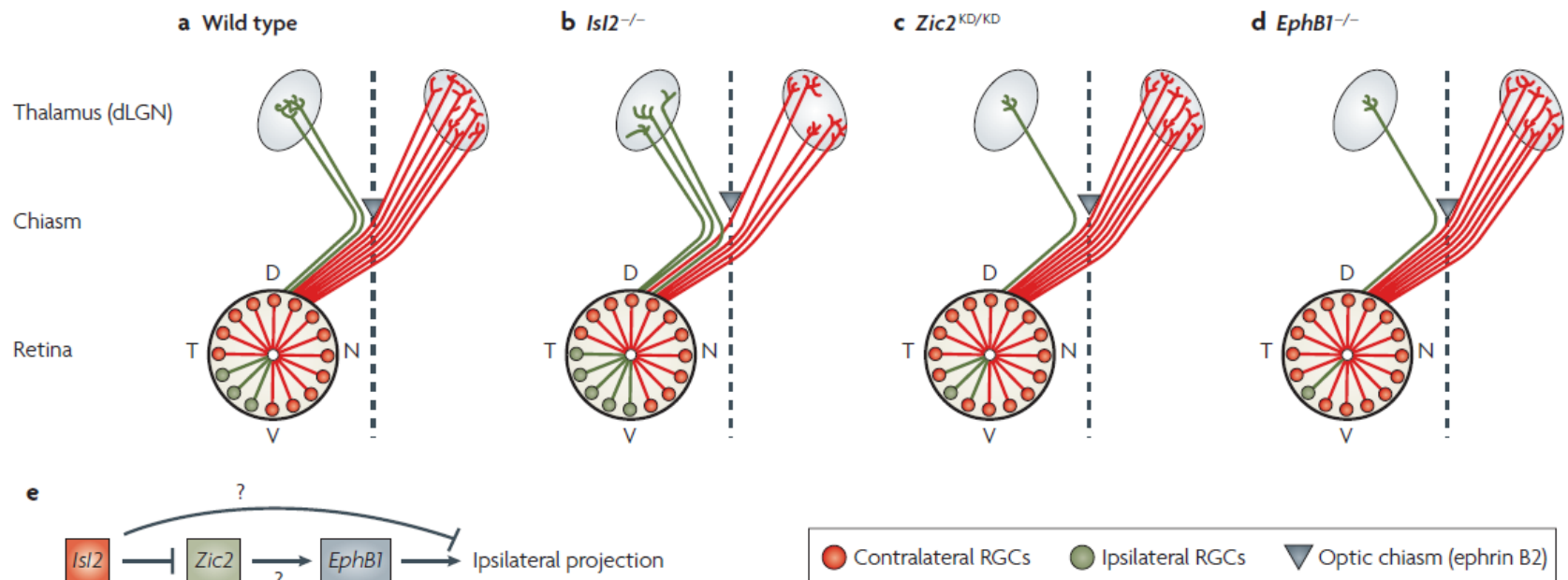
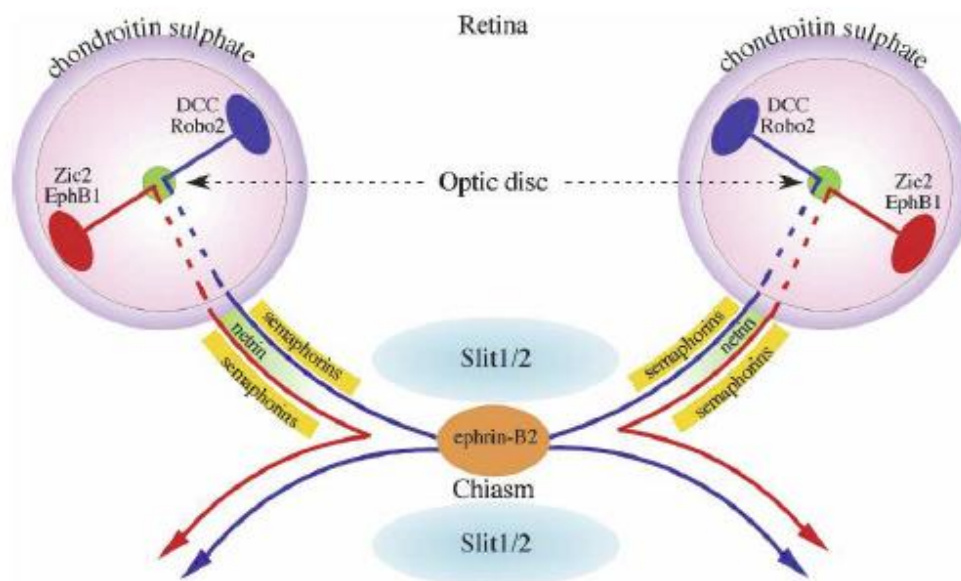


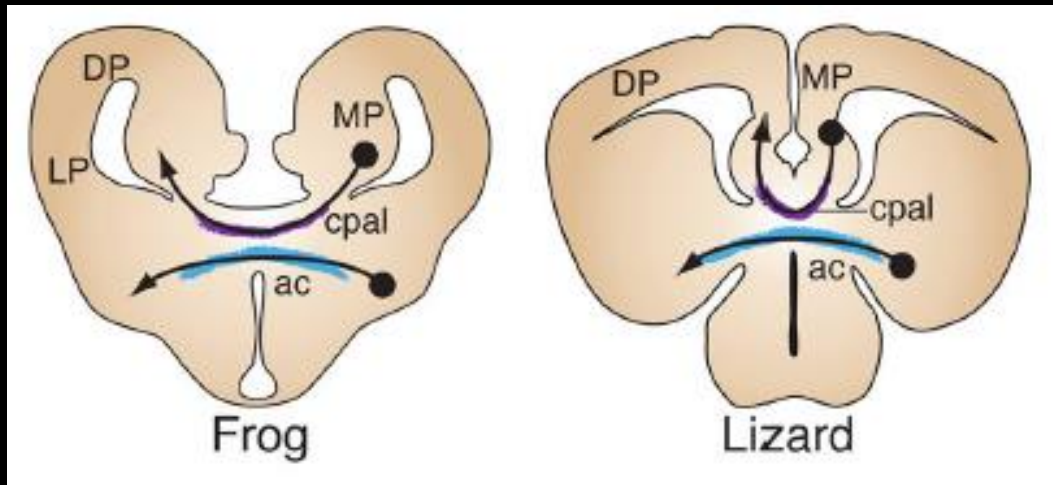




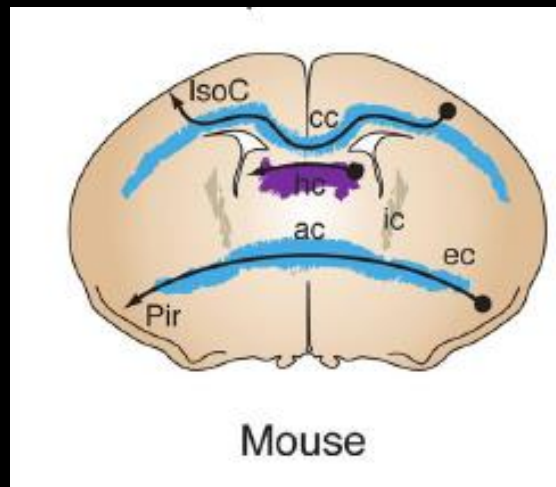
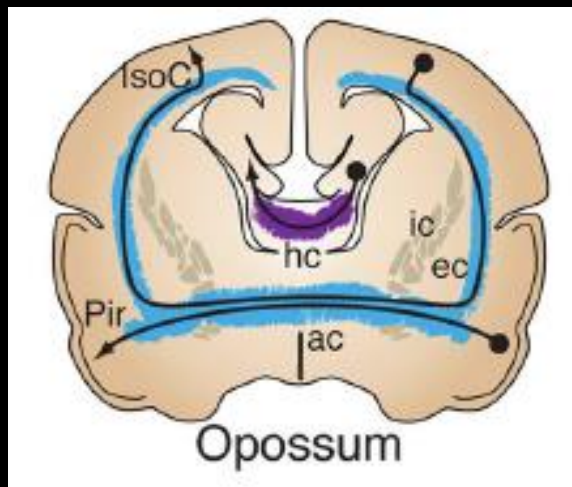
(Courtesy of Christine Holt)

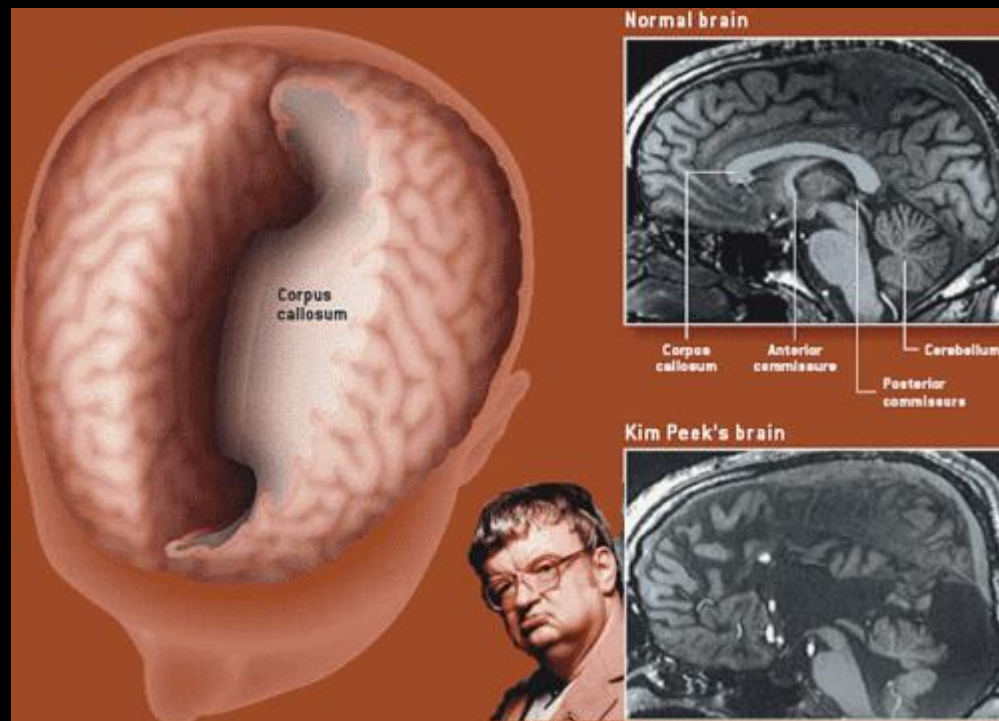




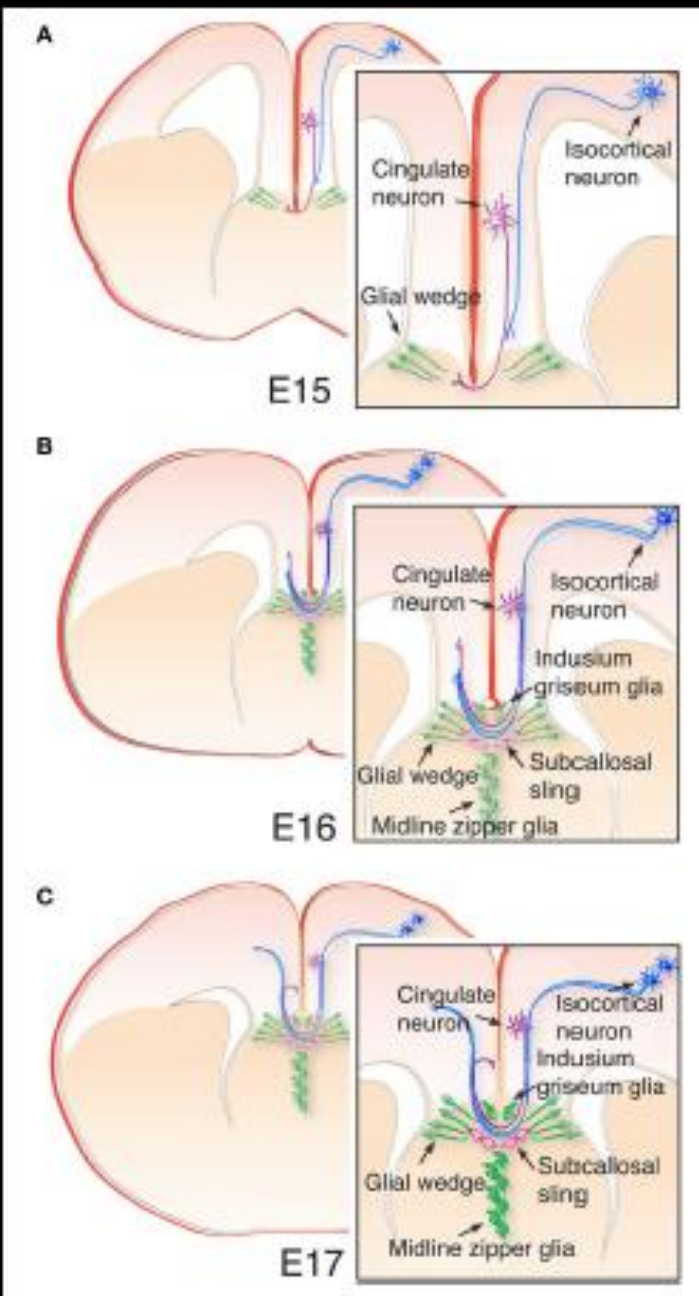
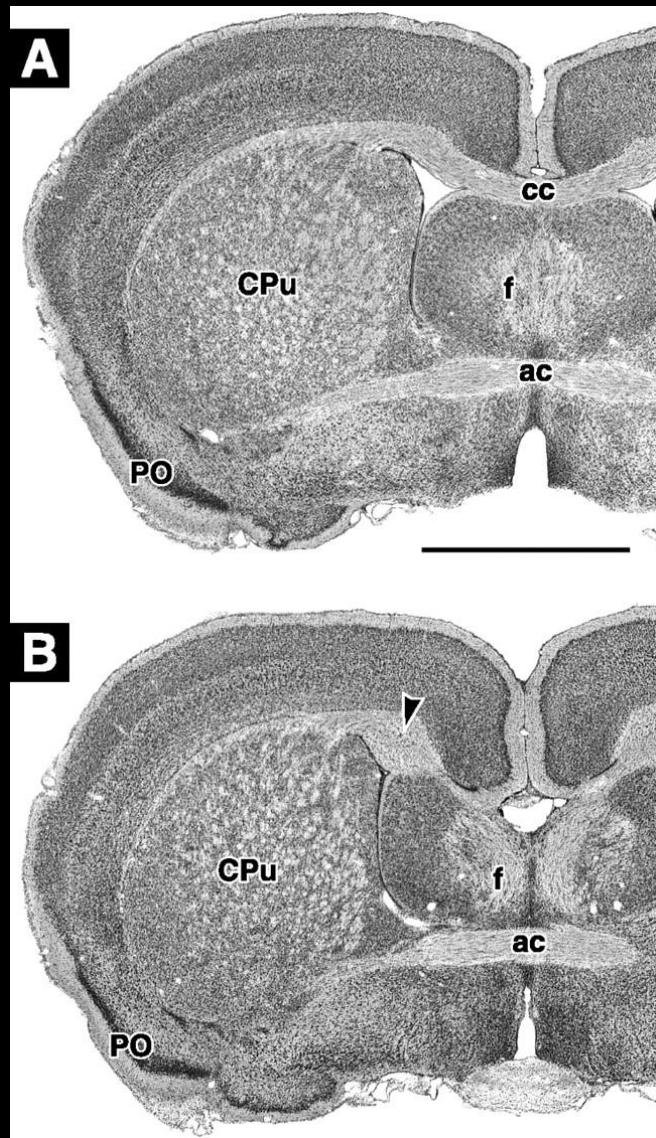


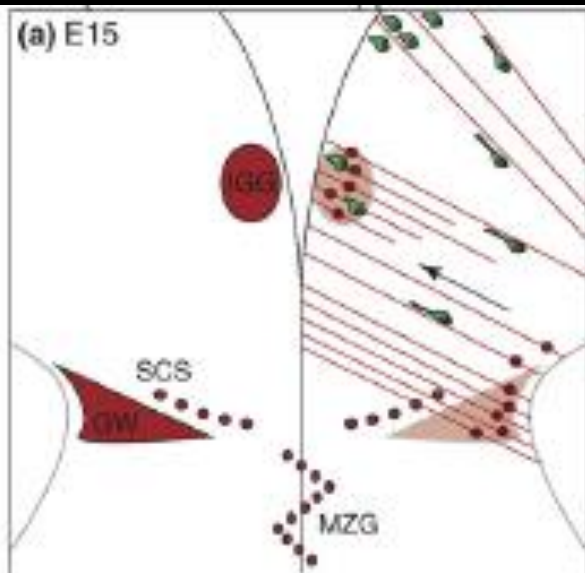
cc-corpus callosum
 ac-anterior commissure
 hc-hippocampal commissure
 cpal-pallial commissure





Kim Peek



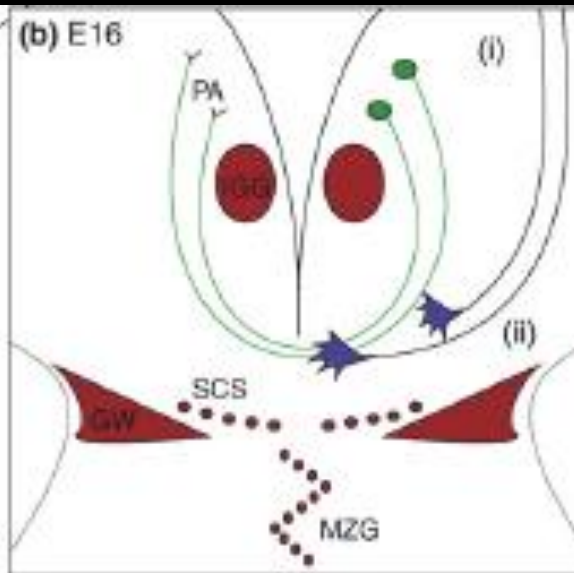


Midline glial development

FGFR1 [12^{**}, 13^{**}]
 NFIA [14, 15]
 NFIB [16^{*}]
 GAP43 [20]

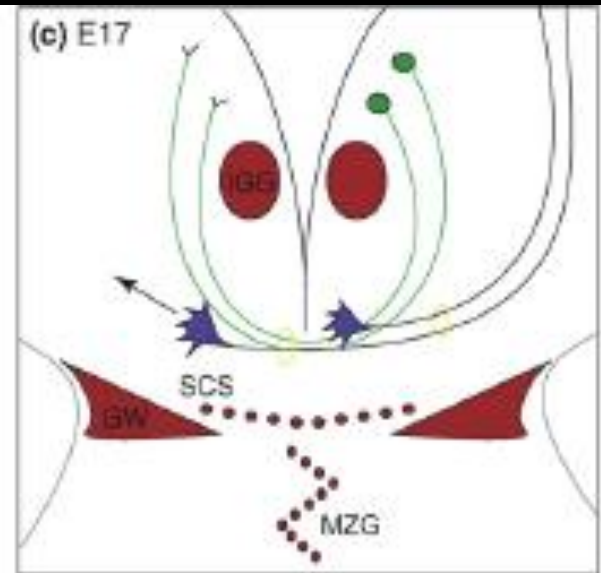
Formation of the SCS

NFIA [14, 15]
 JSAP1 [23^{*}]



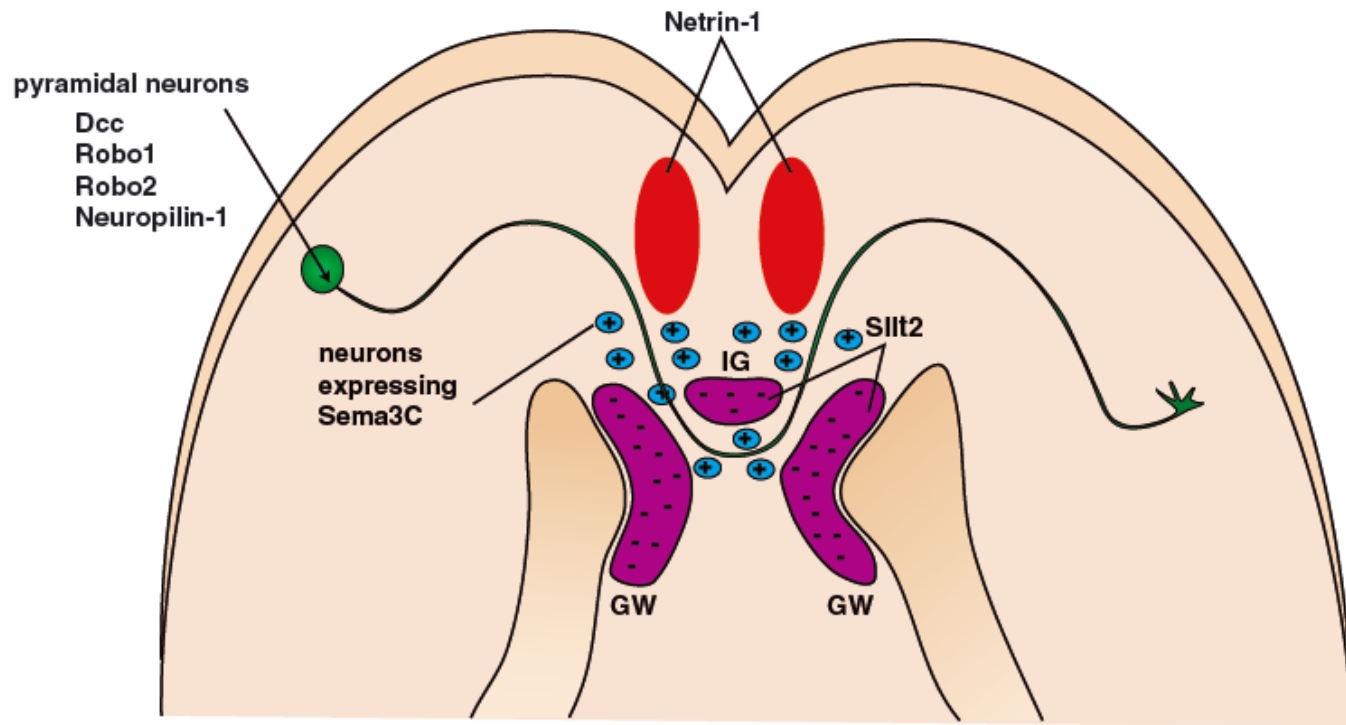
Entering the tract, and approaching and crossing the midline

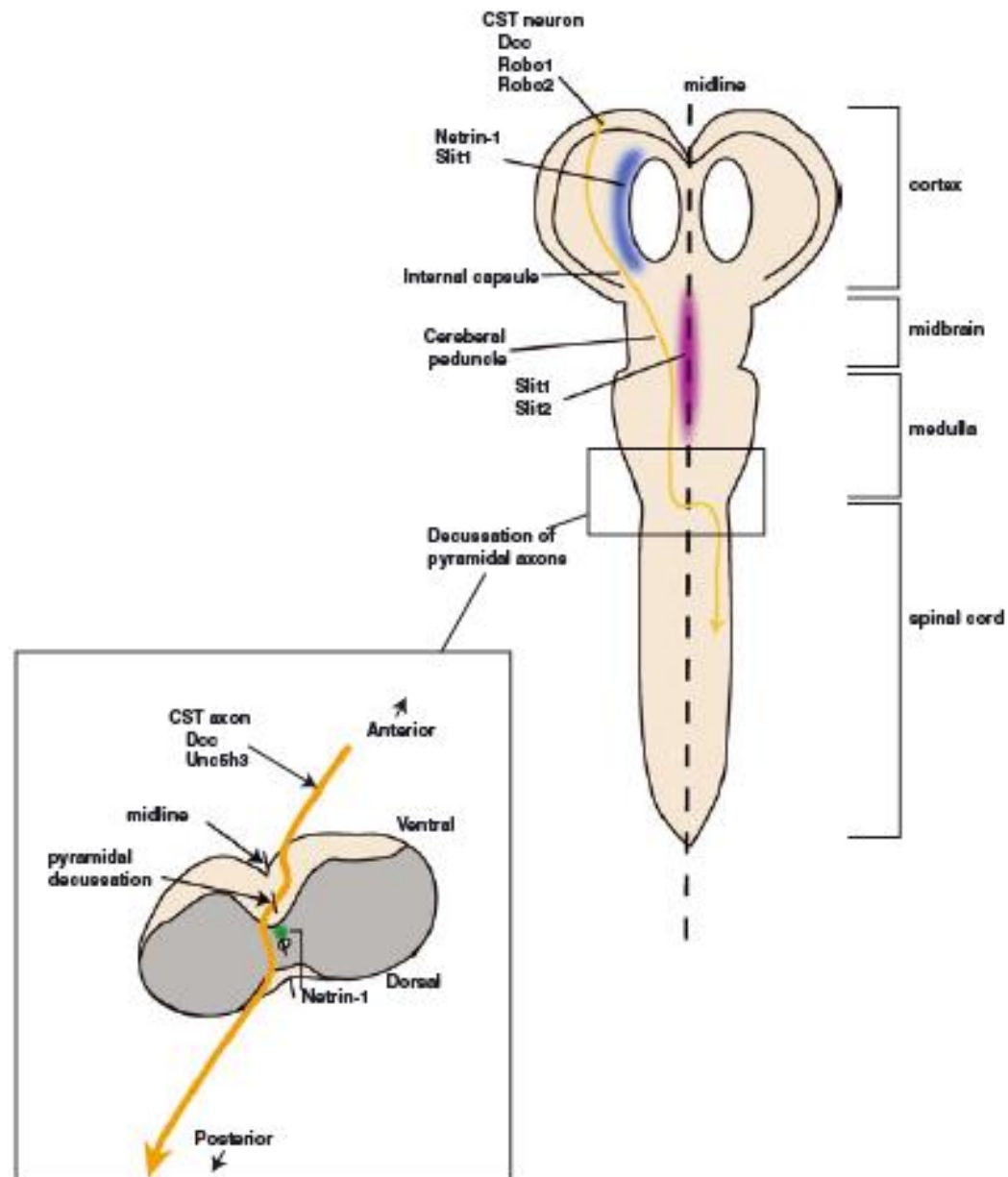
Slit2 and Robo1 [26^{*}, 28]
 Netrin1 and DCC [37, 38, 90]
 Wnt and Frizzled [34]
 EphrinB3 and EphB1 [47]
 Dcx [78^{**}]
 Dclk [77^{**}]
 NG2 glia [55]
 Ndst1 [65]
 Ext1 [67]
 Sema3b and Sema3f [49, 50]
 Nrp1 and Nrp2 [48, 51, 52]

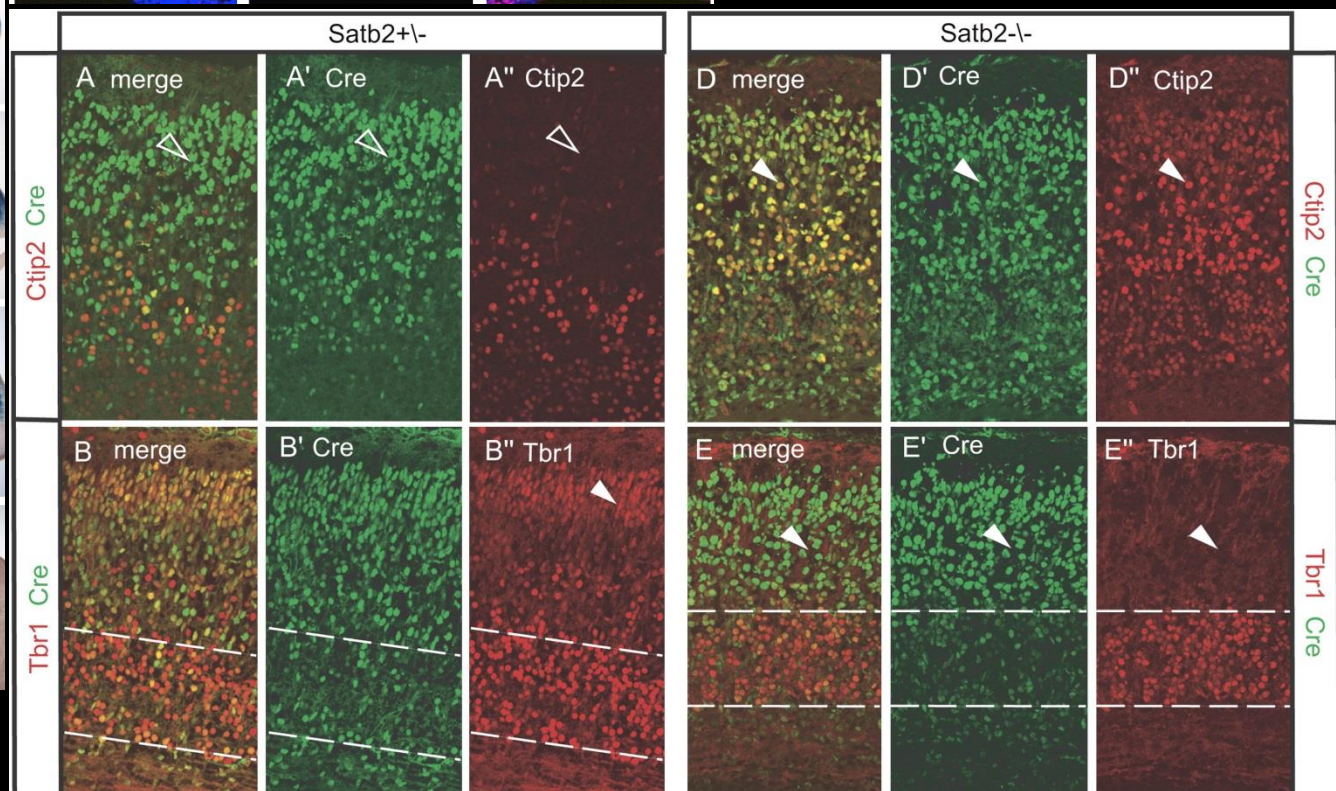
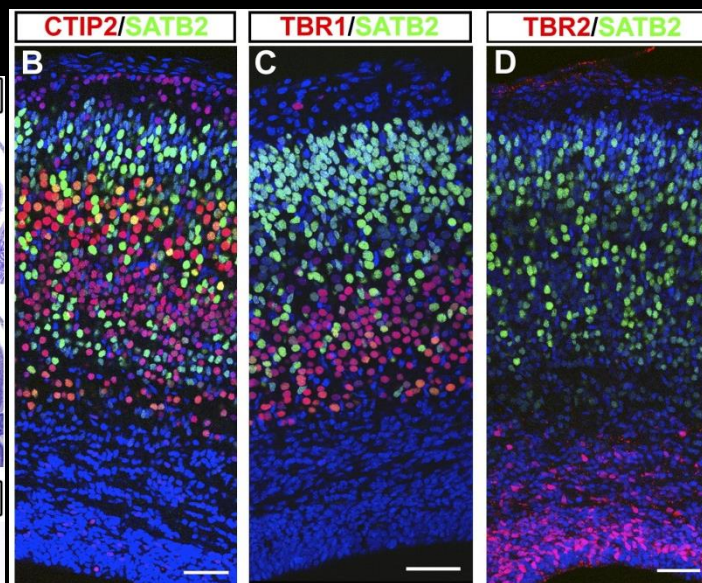
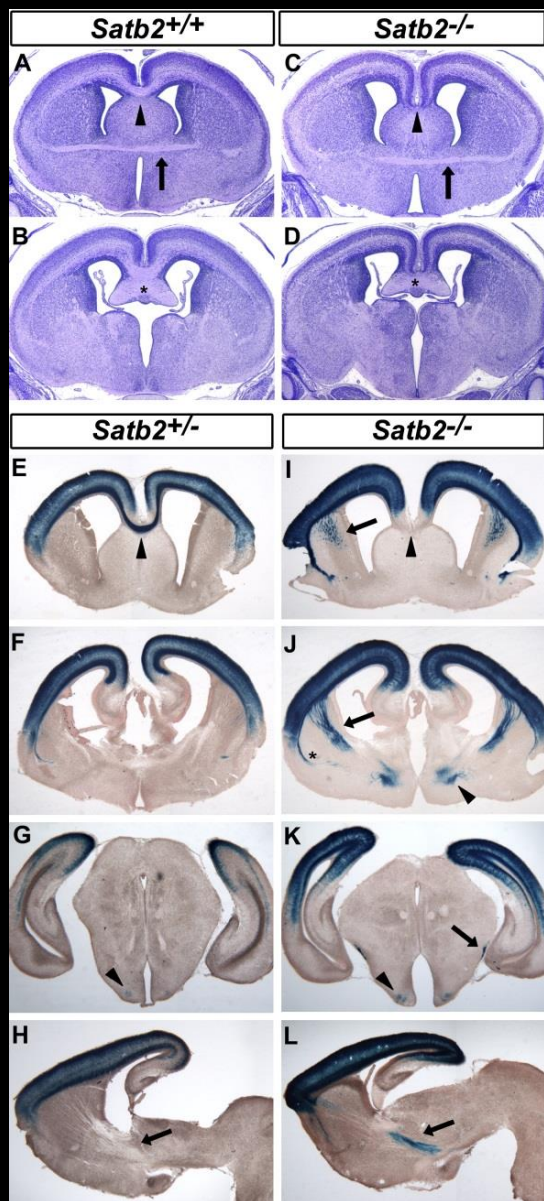


Projecting away from the midline

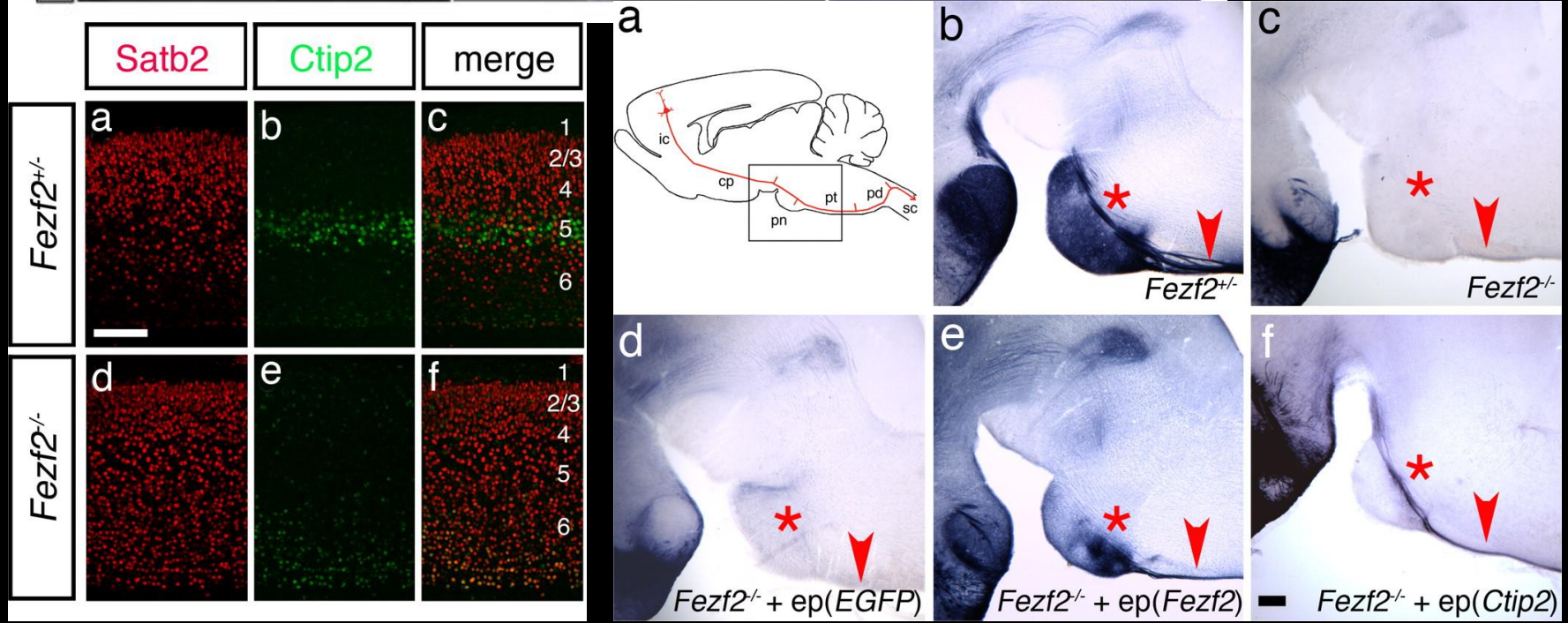
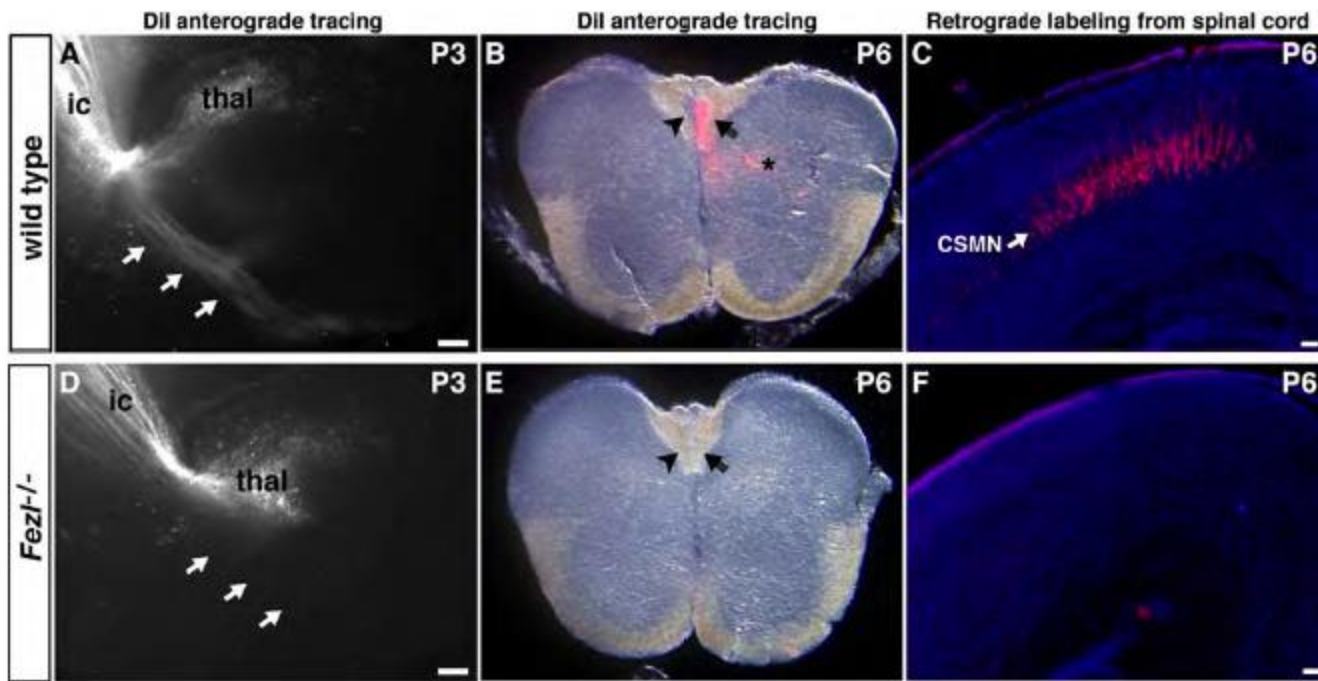
Wnt and Ryk [36^{**}]
 Slit2 and Robo1 [26^{*}, 28]

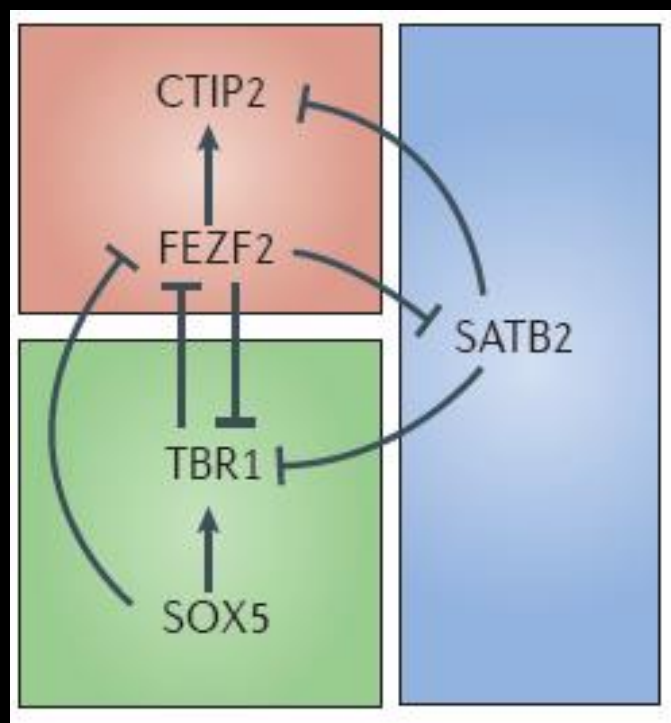






FEZL (FEZF2)

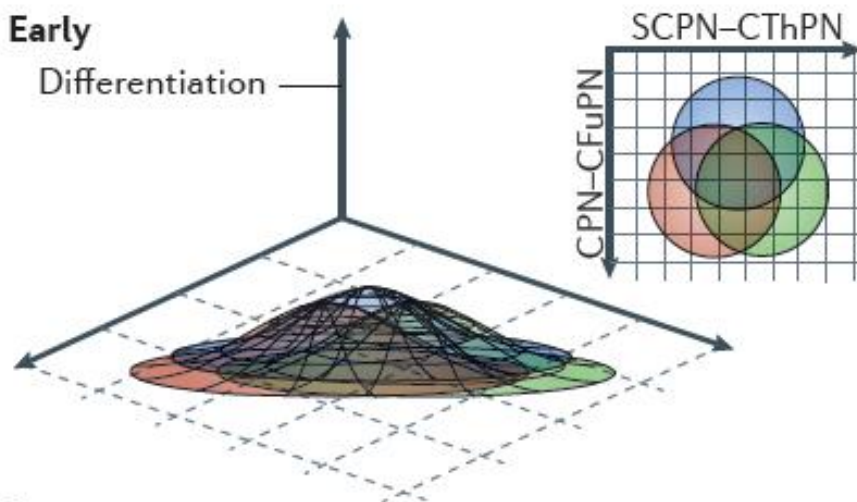




a

Early

Differentiation



Late

Differentiation

