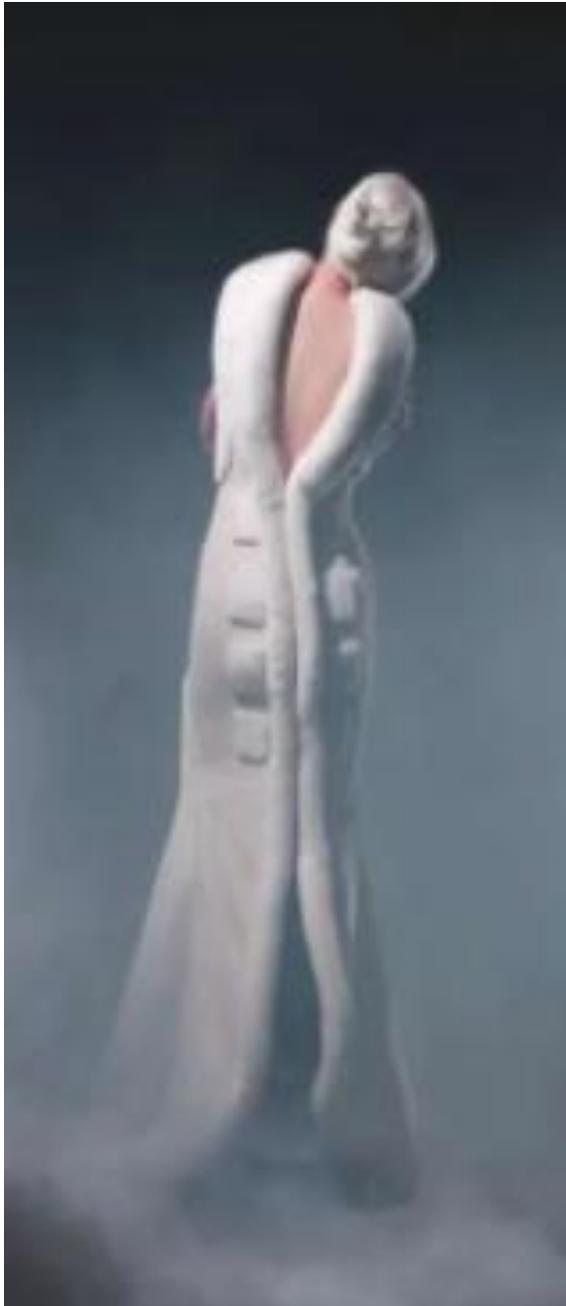




UNIVERSIDADE FEDERAL FLUMINENSE  
PROF. DANIELA FRANKLIN

# DIFERENCIAÇÃO DO ECTODERMA

MAMÍFEROS DOMÉSTICOS



# NEURULAÇÃO

- Evento que leva a formação do tubo neural que é o precursor do Sistema Nervoso Central (SNC).
- O SNC é o primeiro sistema a iniciar seu desenvolvimento no embrião.
- Funcionalmente é superado pelo sistema vascular

# NEURULAÇÃO



Está dividida em:

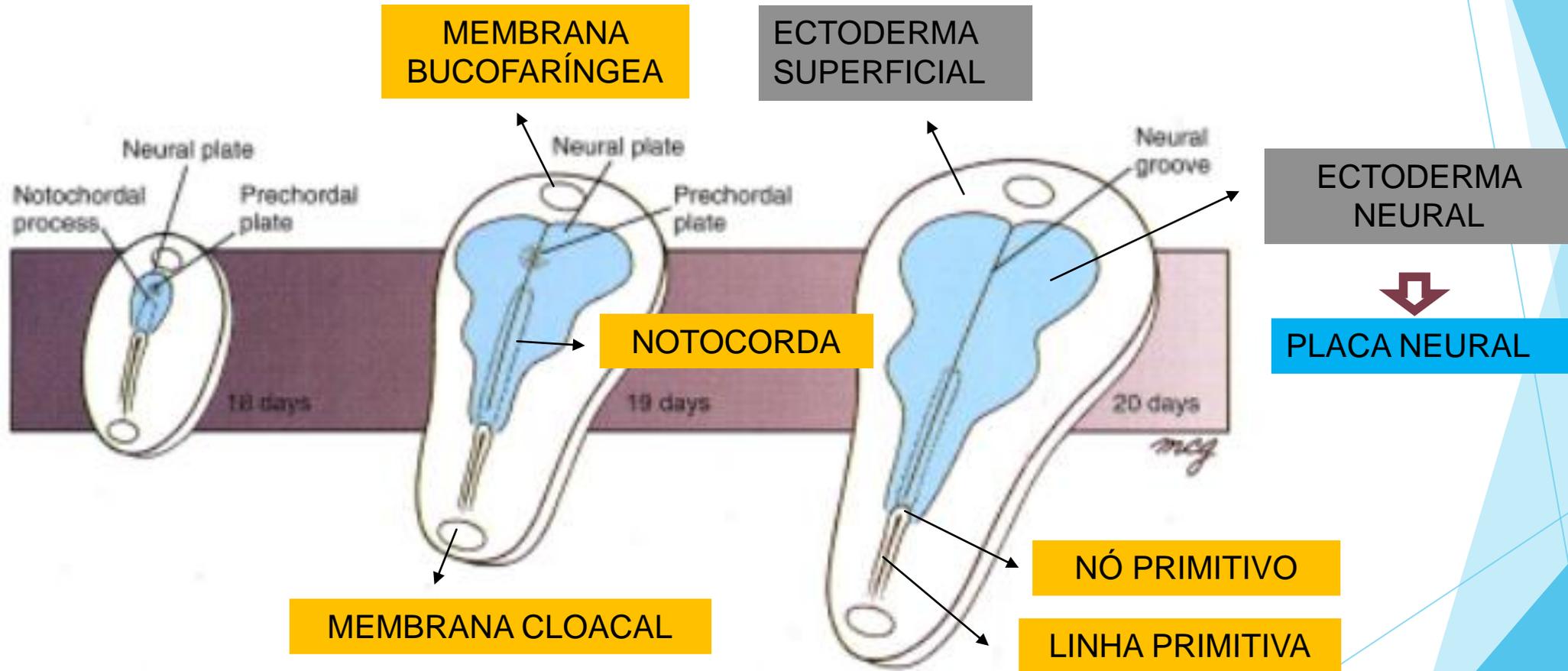


PRIMÁRIA = ocorre da região cefálica até a caudal = ectoderma

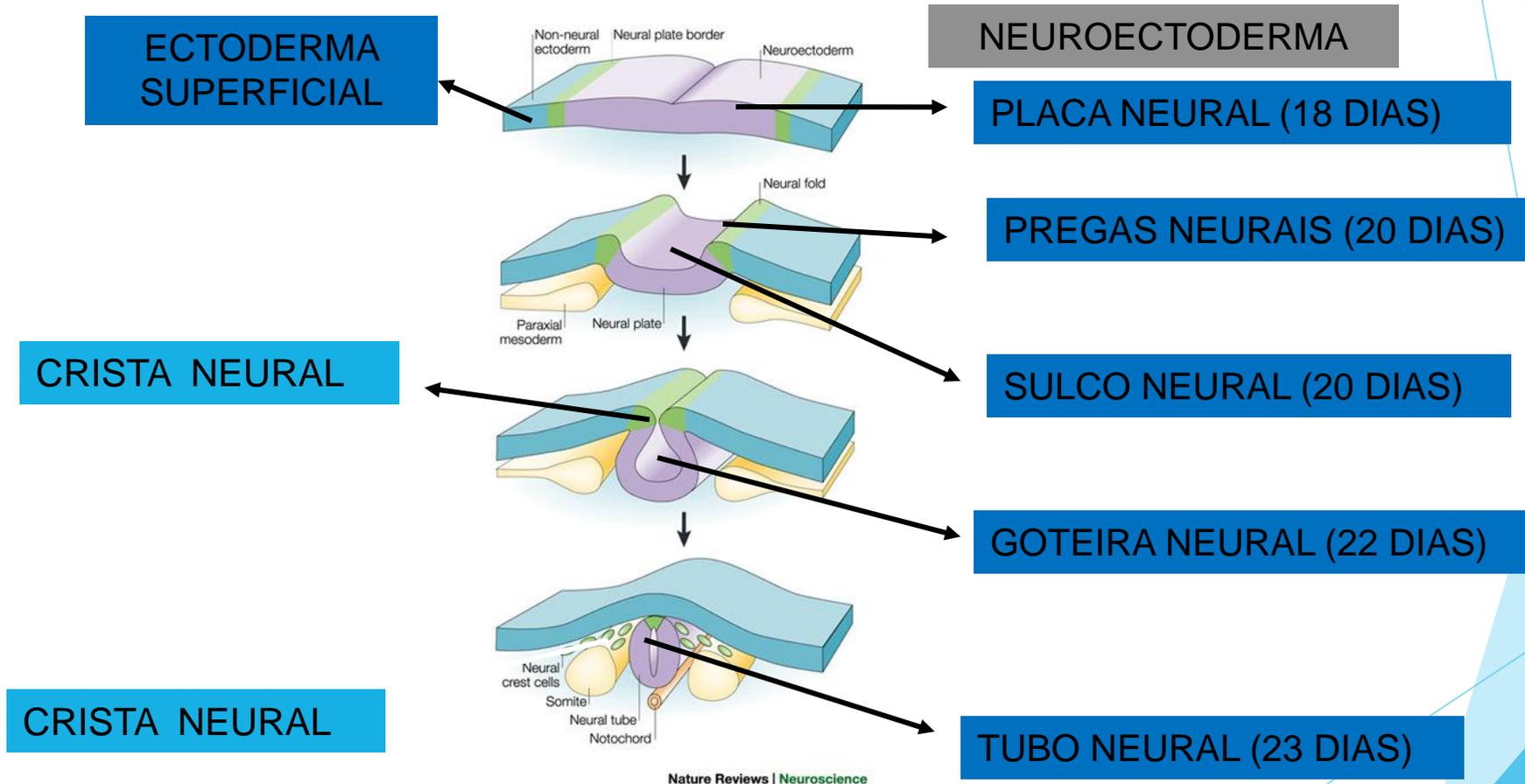


SECUNDÁRIA = ocorre na região mais caudal = mesoderma

# NEURULAÇÃO PRIMÁRIA



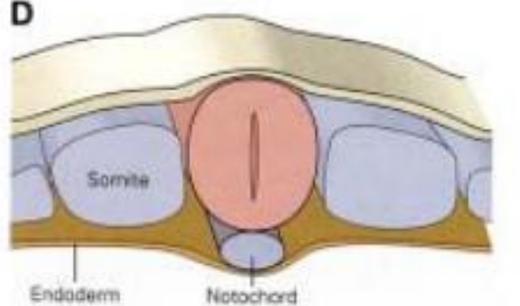
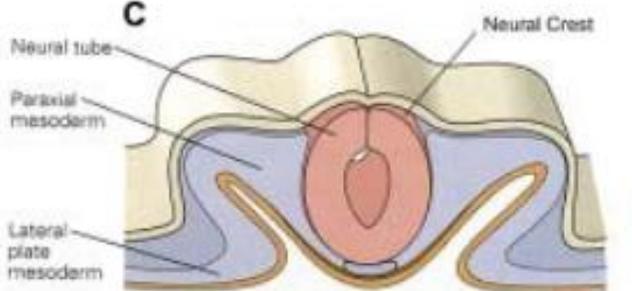
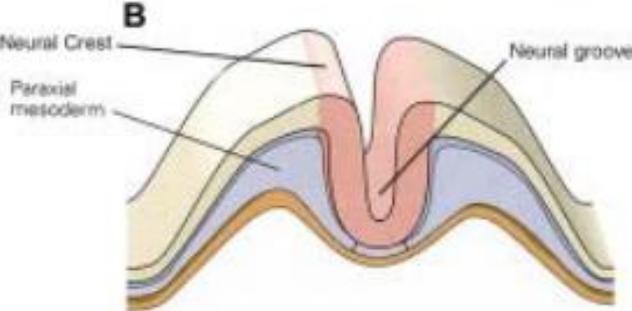
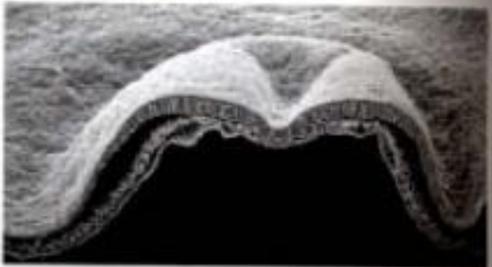
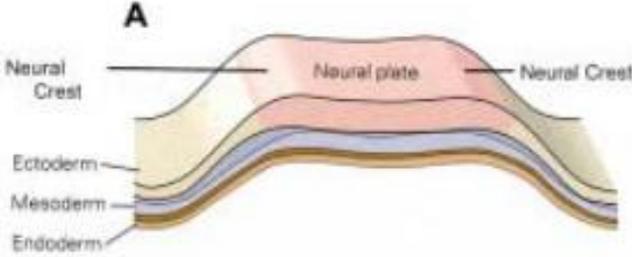
# NEURULAÇÃO PRIMÁRIA

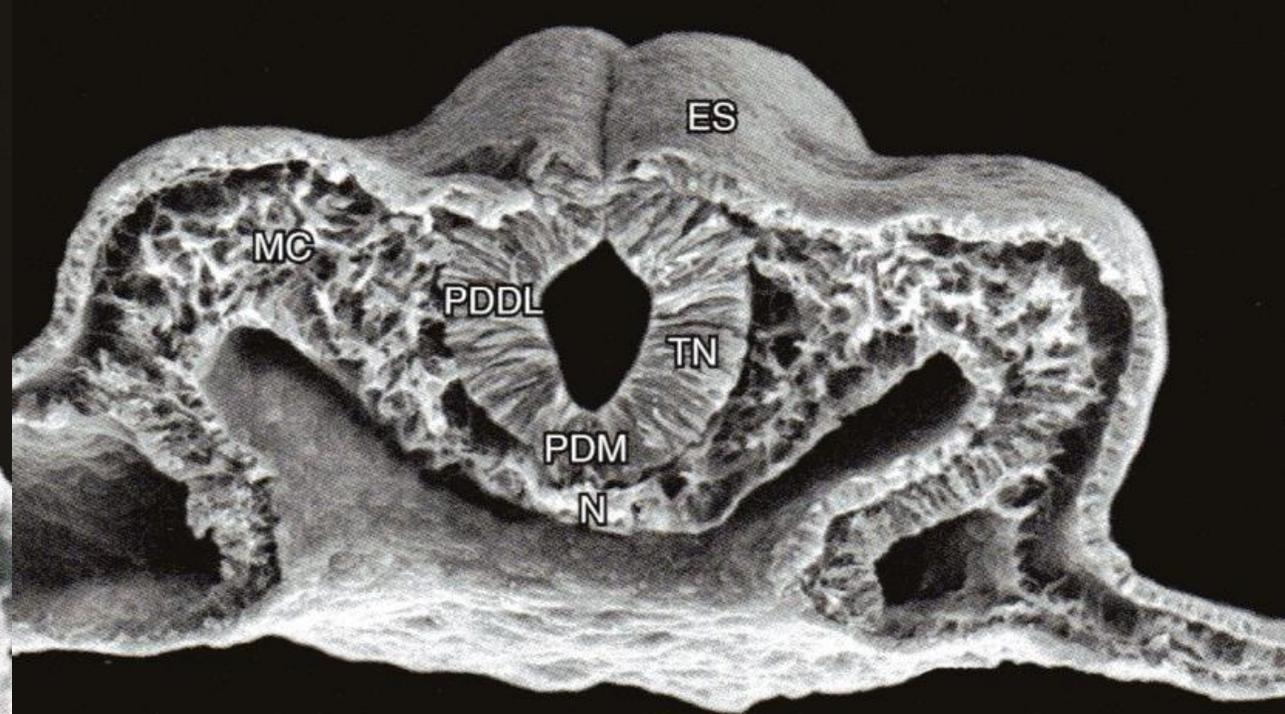
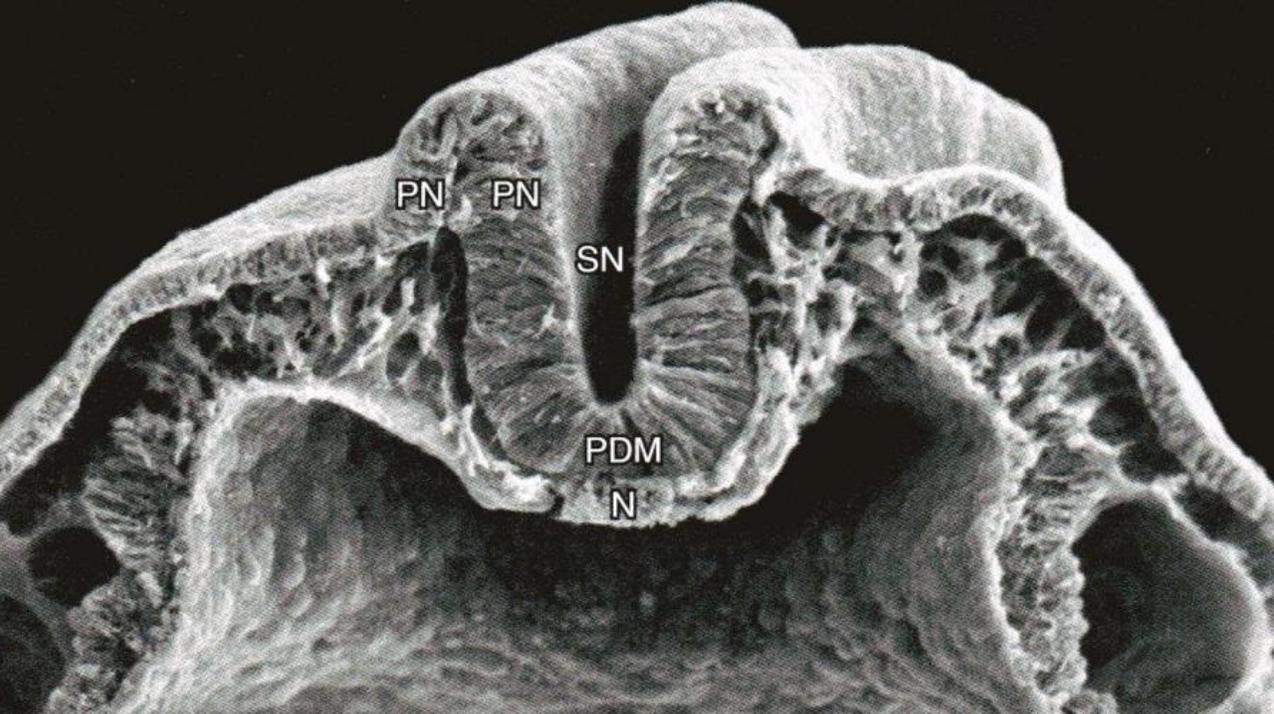


Nature Reviews | Neuroscience

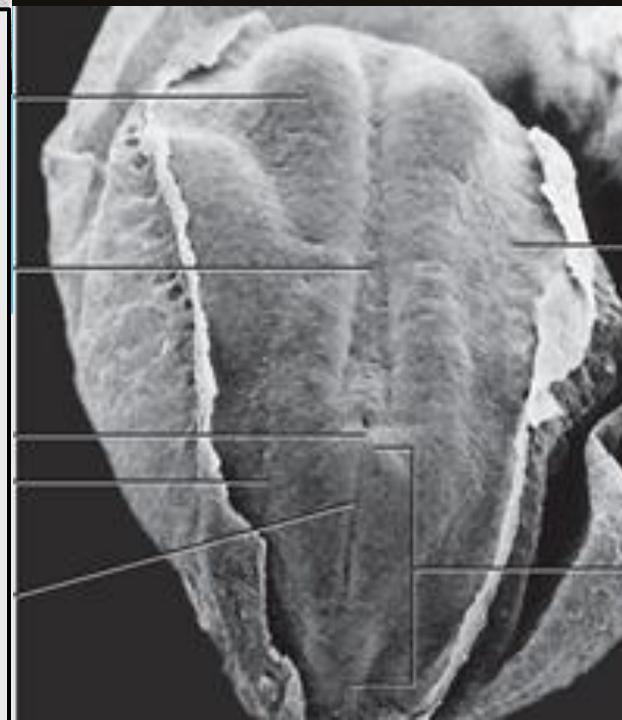
CORTE TRANSVERSAL

# NEURULAÇÃO PRIMÁRIA

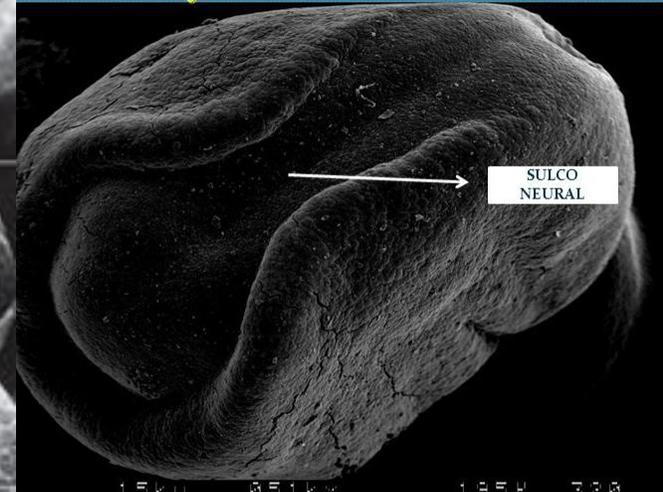




# NEURULAÇÃO PRIMÁRIA

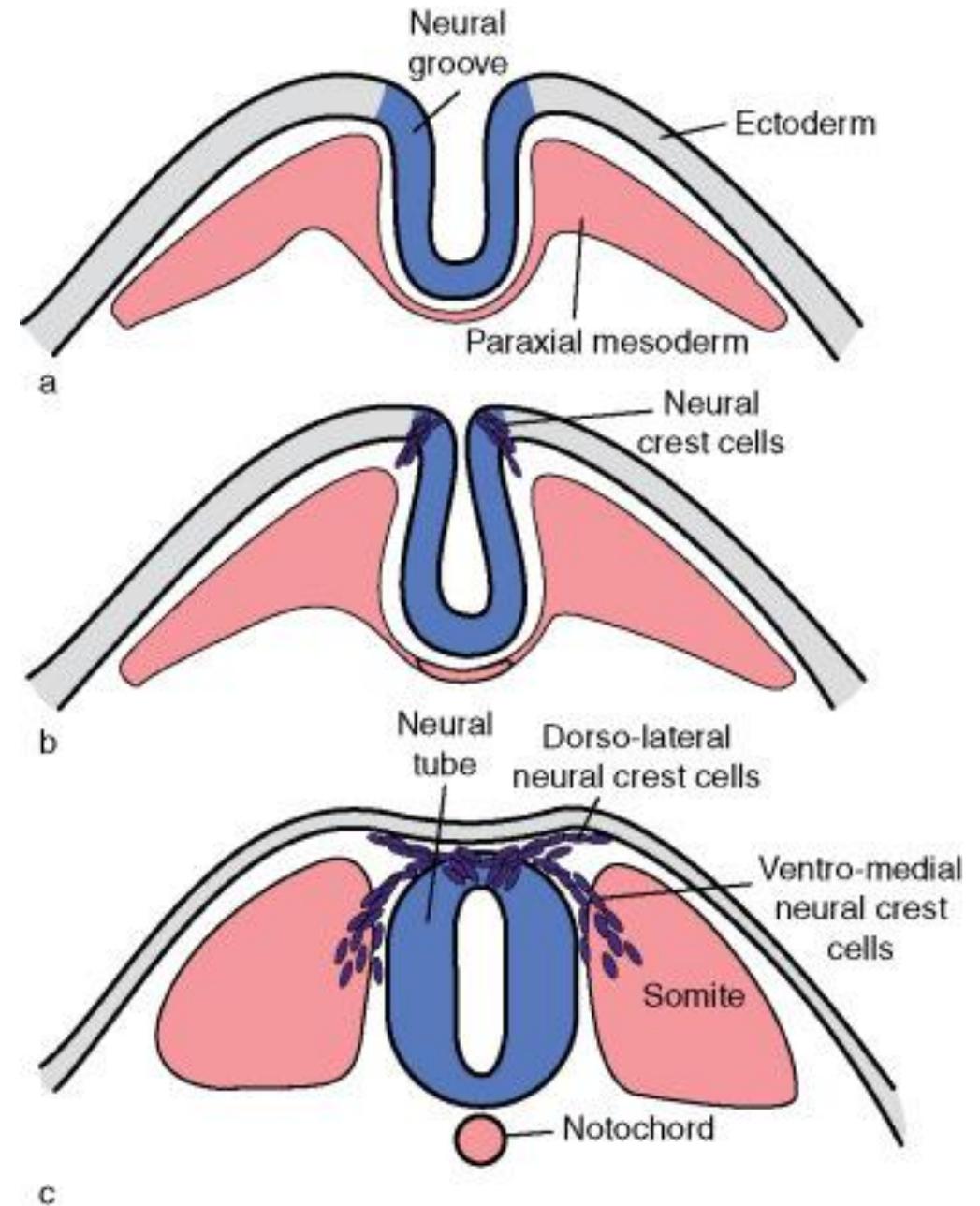


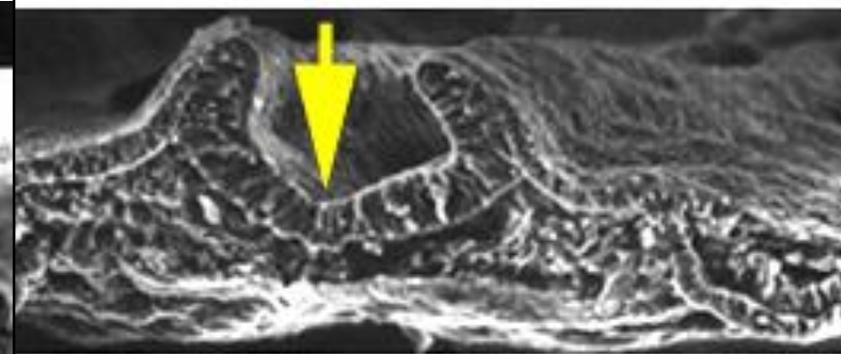
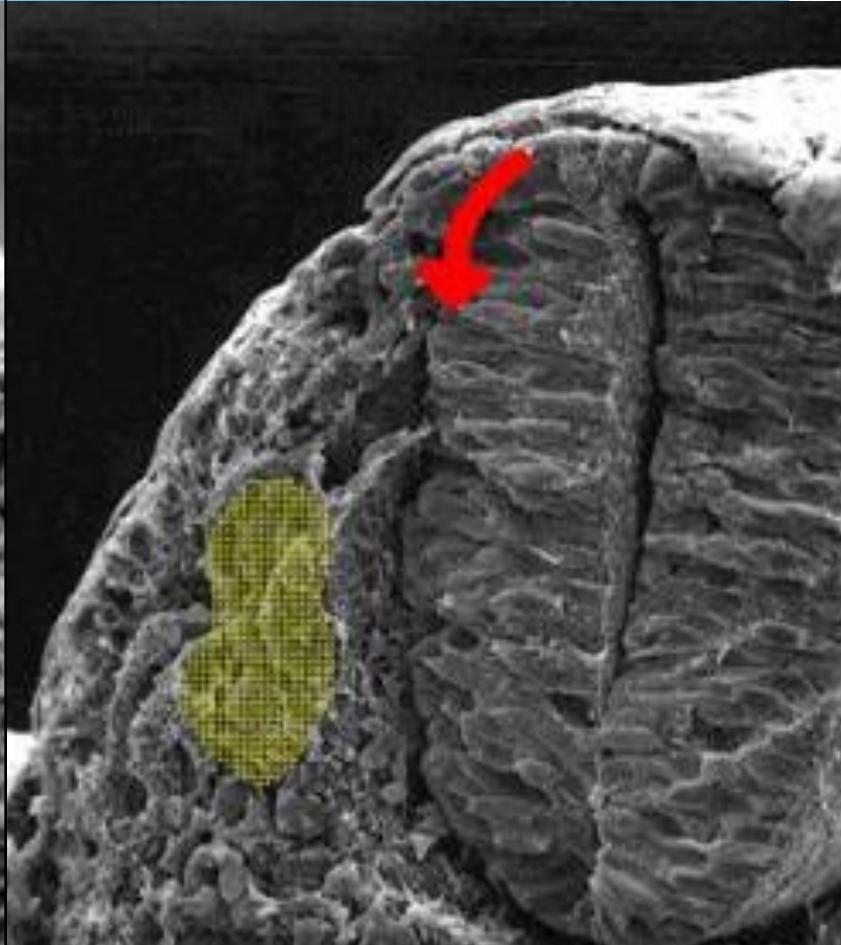
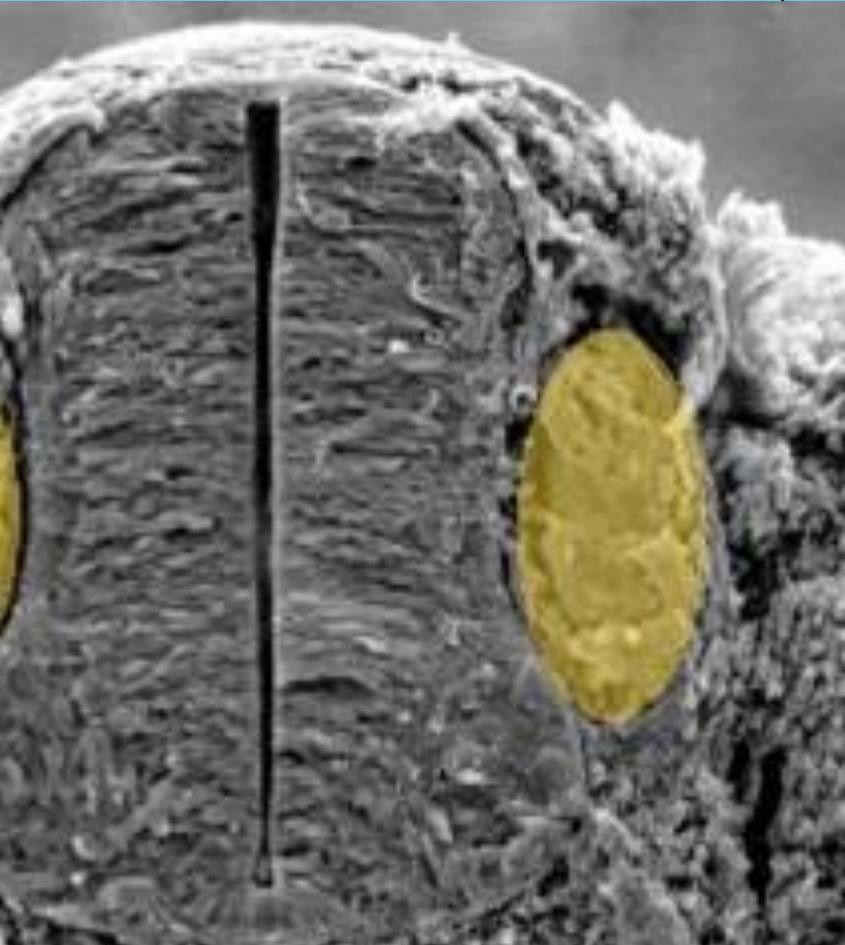
## FORMAÇÃO DO TUBO NEURAL



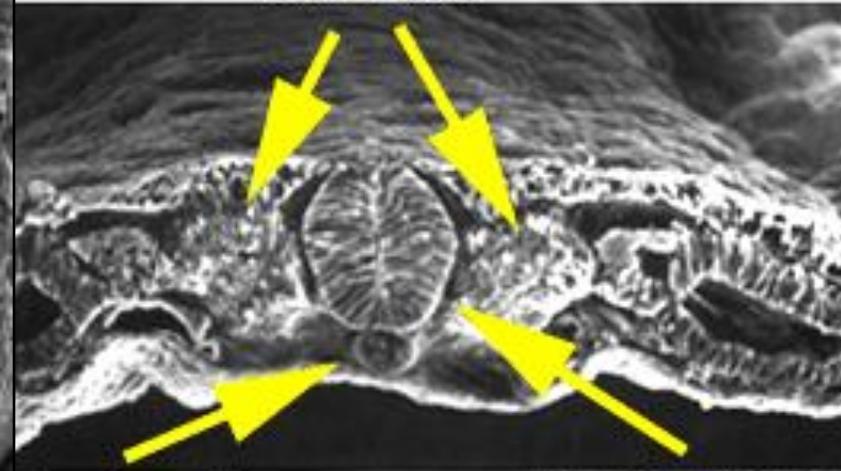
10 kV 0.01 kx 195.4 0.00

# CRISTA NEURAL





Somites

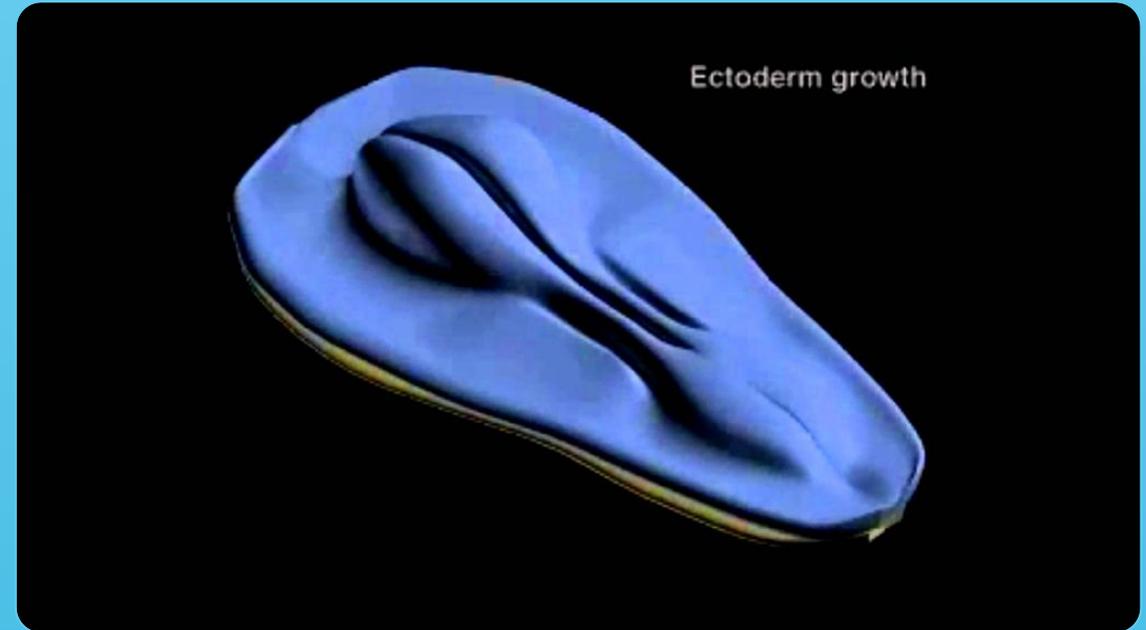
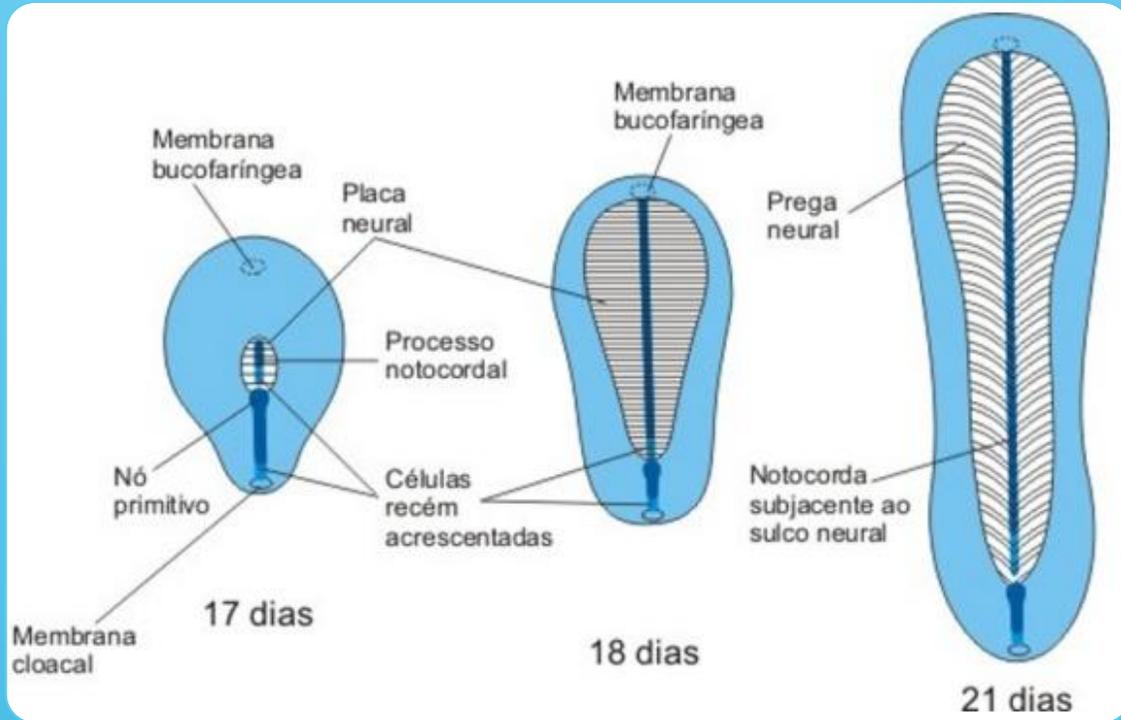


Notochord

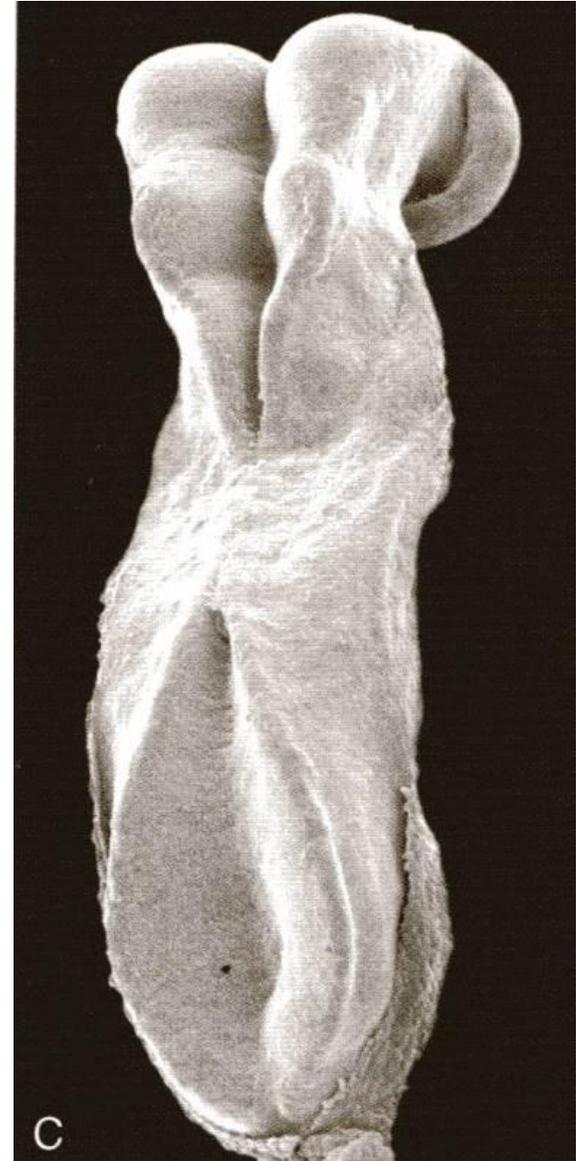
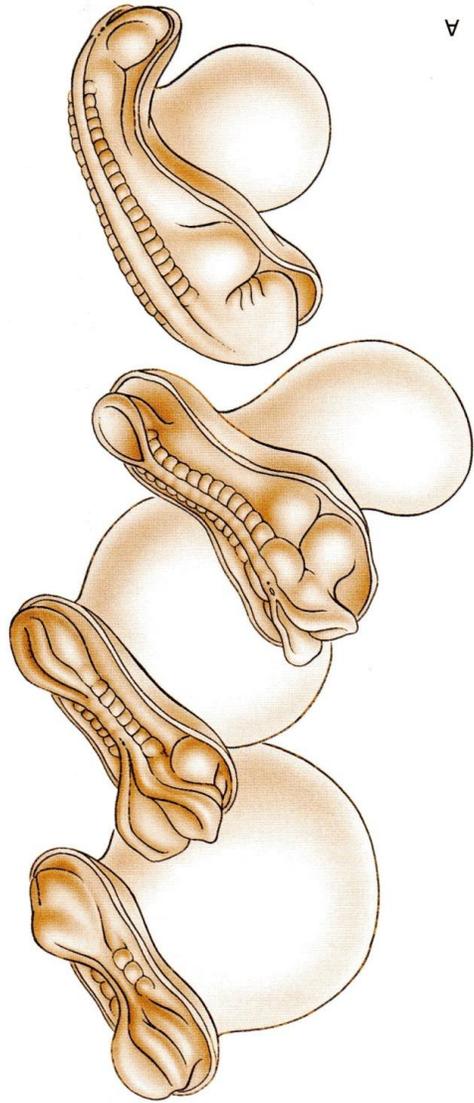
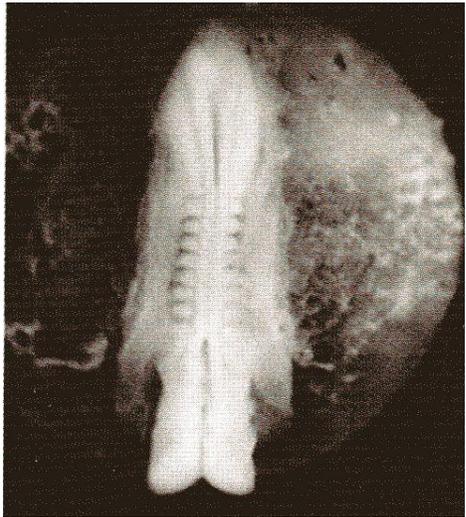
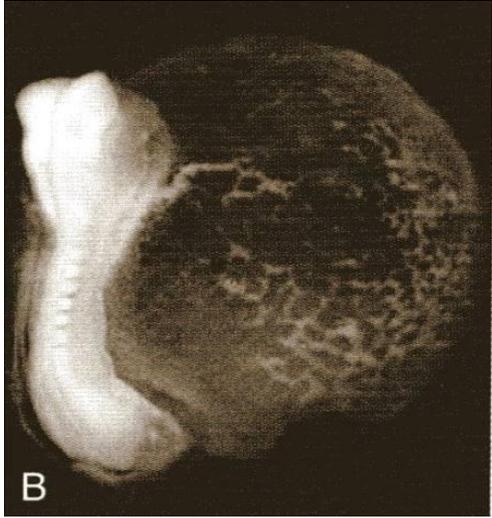
Neural tube

# NEURULAÇÃO PRIMÁRIA

(corte transversal)

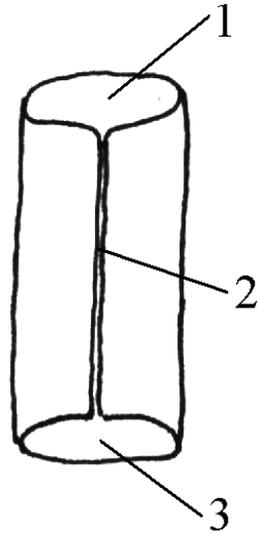


# ALONGAMENTO DO EMBRIÃO

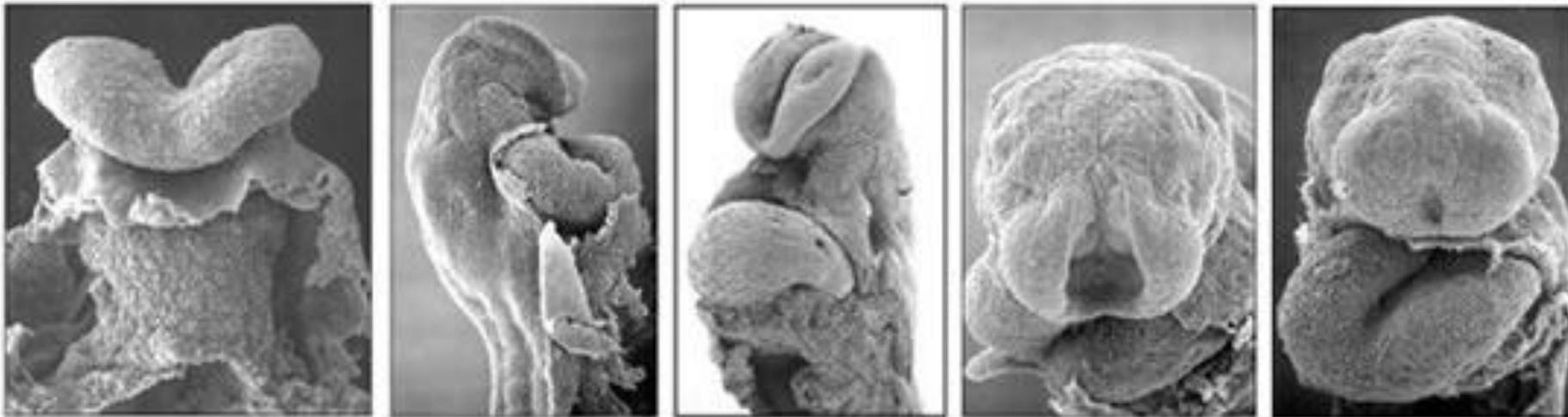


# NEURÓPOROS

NEURÓPORO ANTERIOR



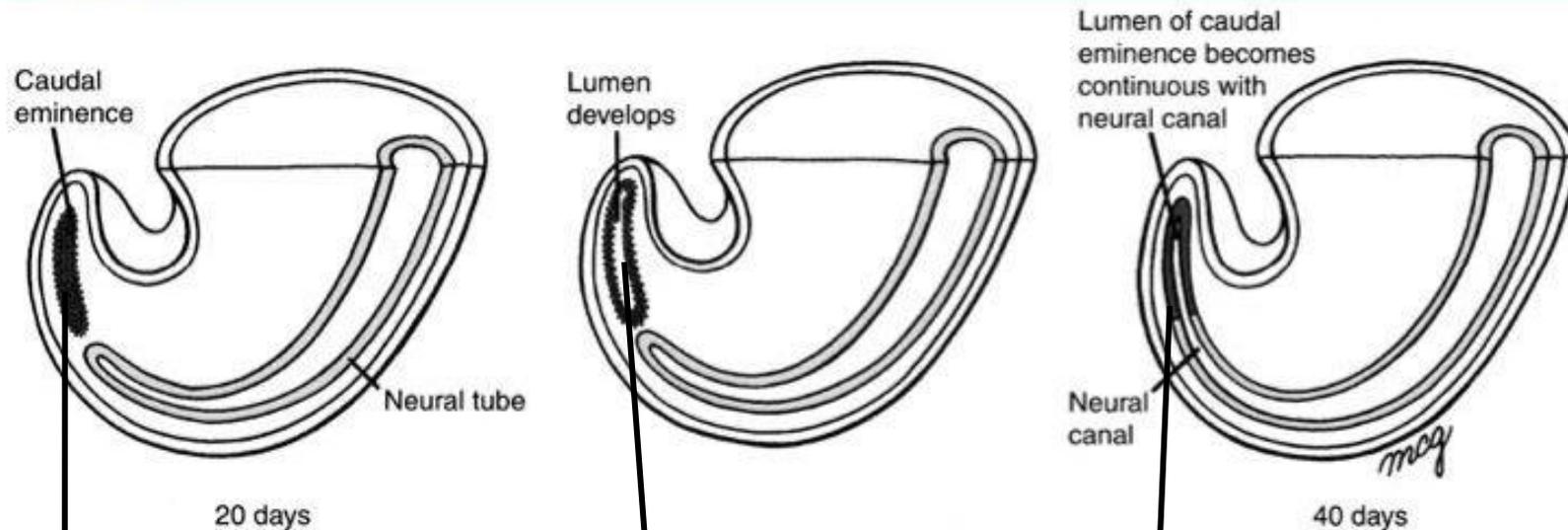
NEURÓPORO POSTERIOR



# NEURULAÇÃO SECUNDÁRIA

INÍCIO = 24º DIA  
TÉRMINO = 8ª SEMANA

Medscape



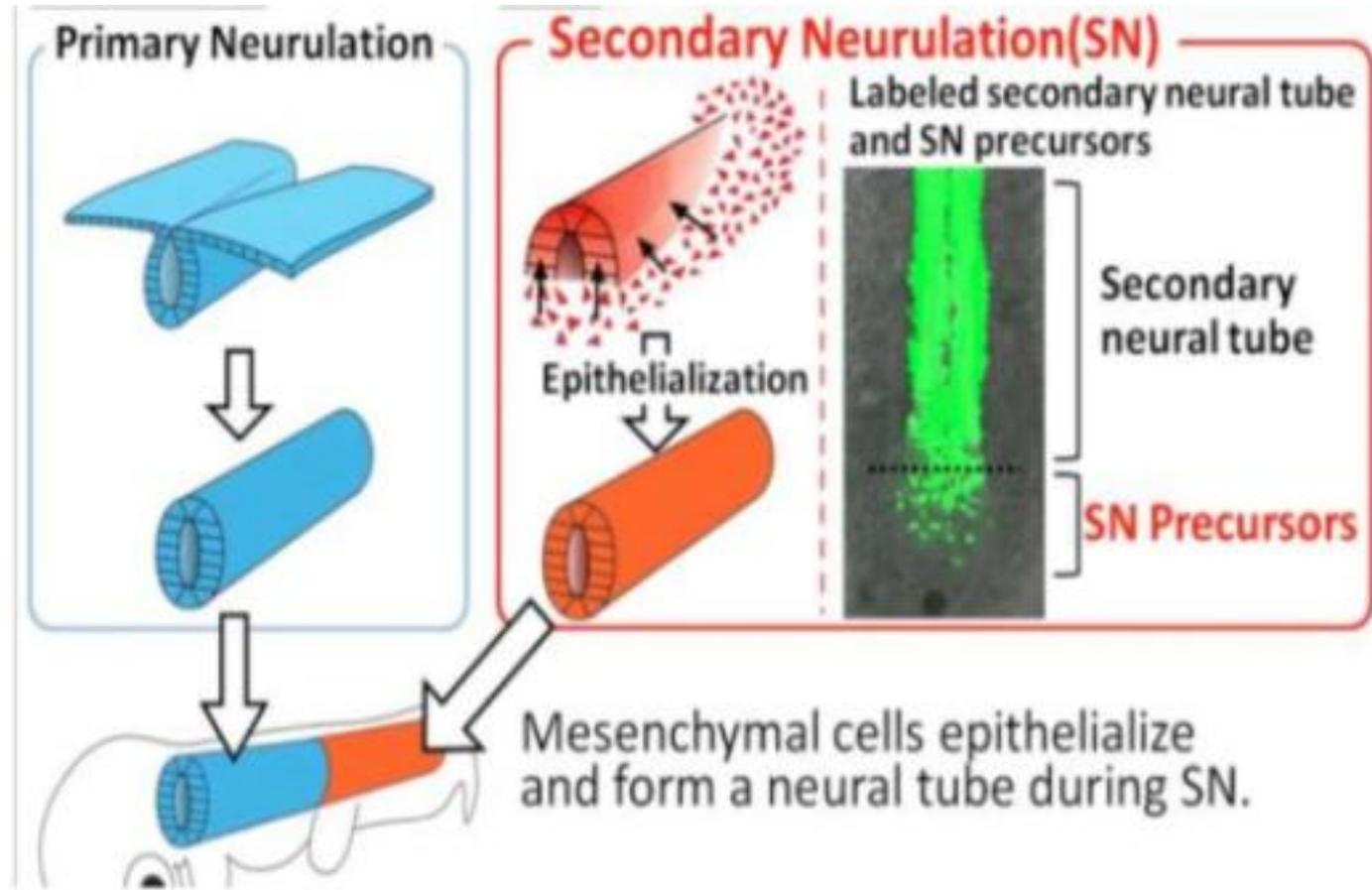
Source: Neurosurg Focus © 2010 American Association of Neurological Surgeons

CORDÃO MEDULAR

CAVITAÇÃO

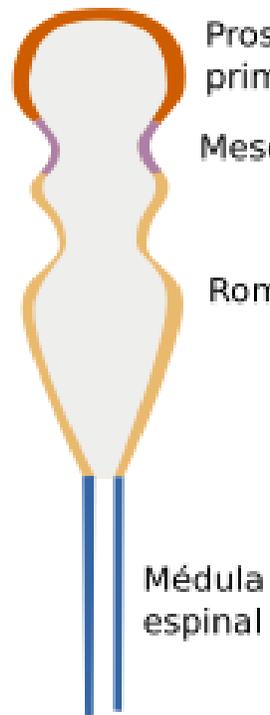
FUSÃO

# NEURULAÇÃO



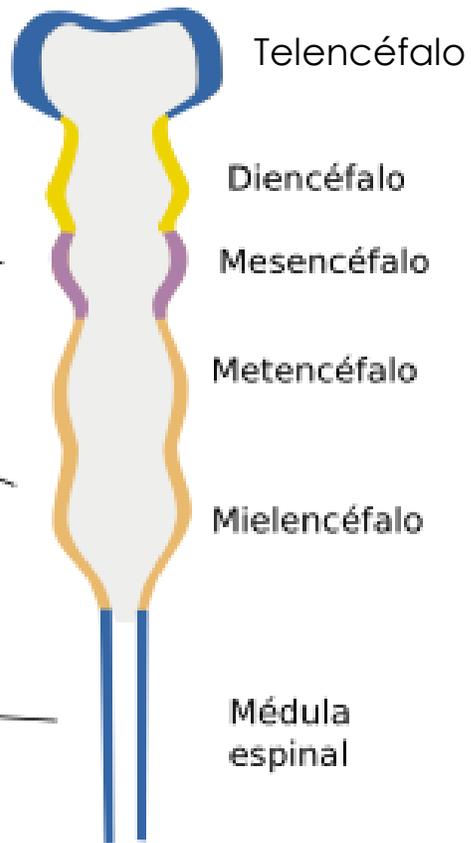
# DERIVADOS DO TUBO NEURAL

## VESÍCULAS PRIMÁRIAS

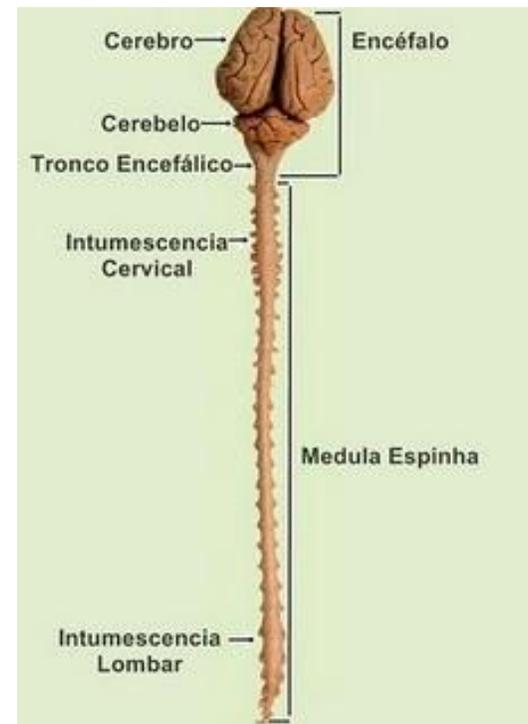


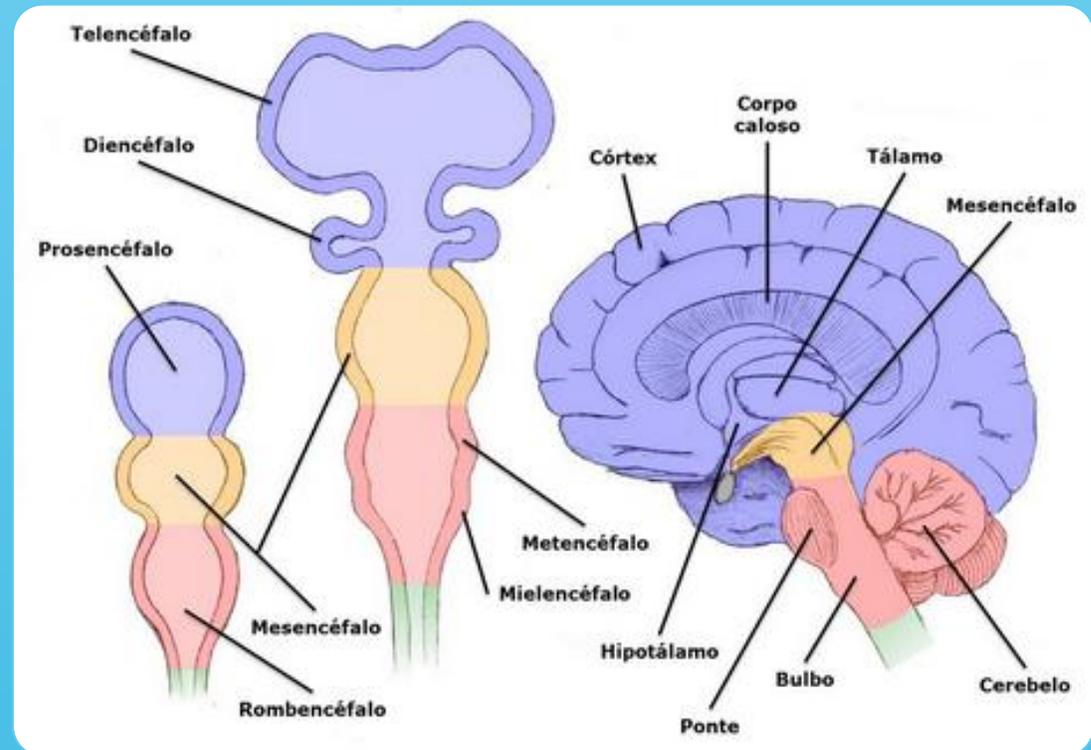
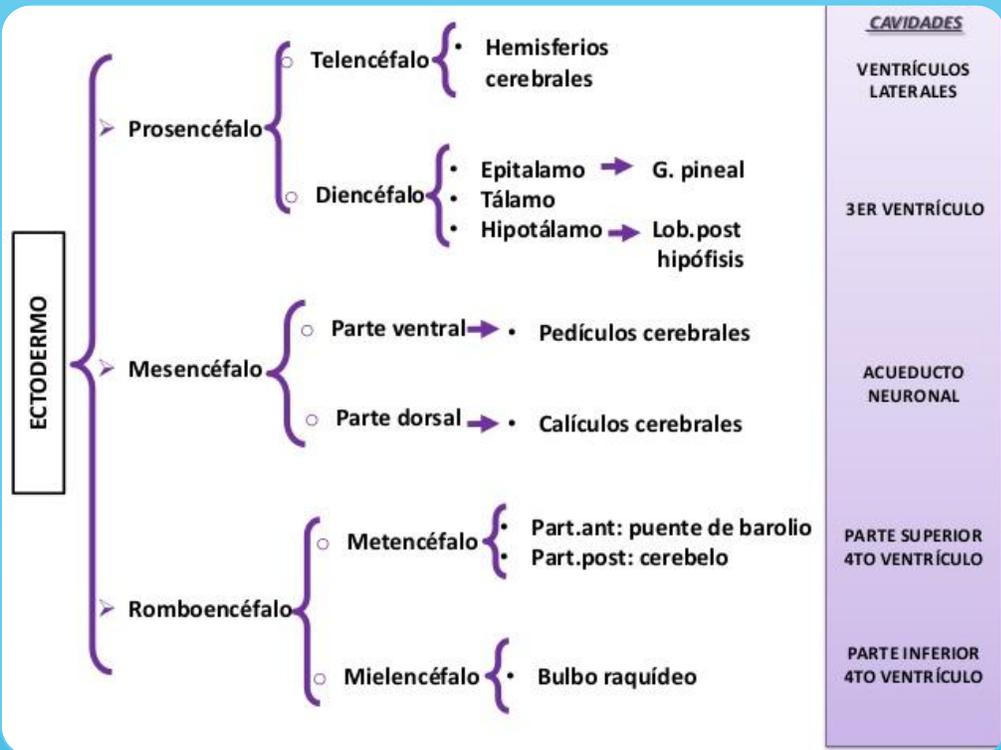
24° dia

## VESÍCULAS SECUNDÁRIAS



5° MÊS



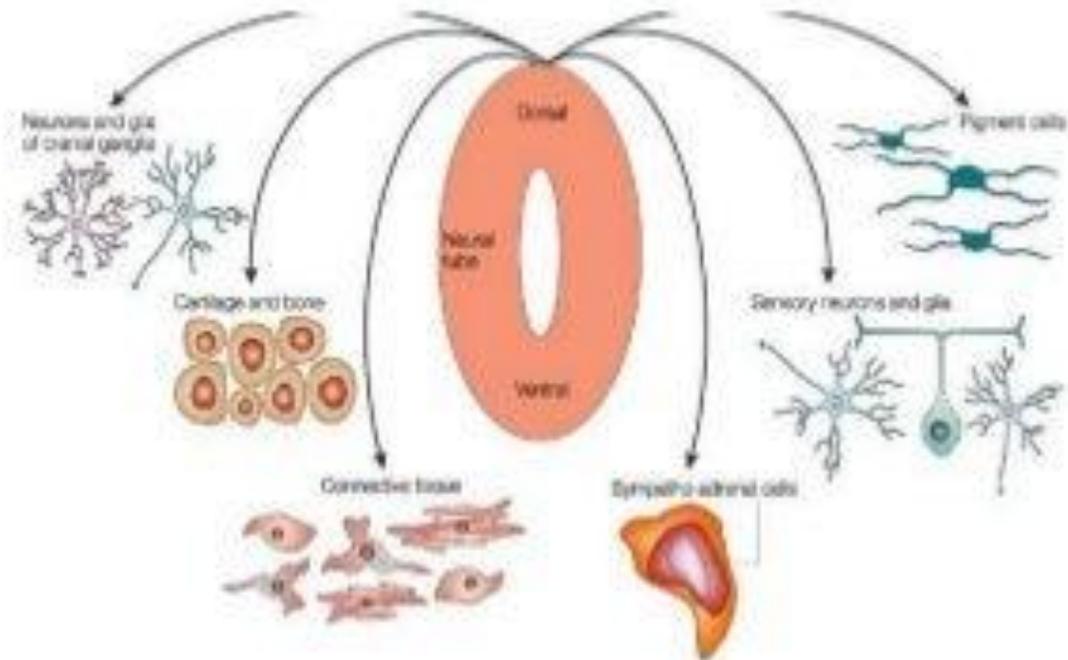


# DERIVADOS DO TUBO NEURAL

# CRISTA NEURAL

Originam = tecido conjuntivo e ossos da face; gânglios nervosos cranianos, Células da tireóide; Septo conotruncal do coração, odontoblastos, Derme da face e pescoço, medula da adrenal, Célula de Schwann e da glia, meninges, etc...

## Cell Fates-Neural tube cells/Neural crest cells



# DERIVADOS DO ECTODERMA

- SISTEMA NERVOSO CENTRAL
- SISTEMA NERVOSO PERIFÉRICO
- EPITÉLIO SENSORIAL DO OUVIDO, NARIZ E OLHO
- EPIDERME, INCLUINDO CABELO E UNHA
- GLÂNDULAS SUDORÍPARAS, SUBCUTÂNEAS E MAMÁRIA
- HIPÓFISE
- ESMALTE DOS DENTES

