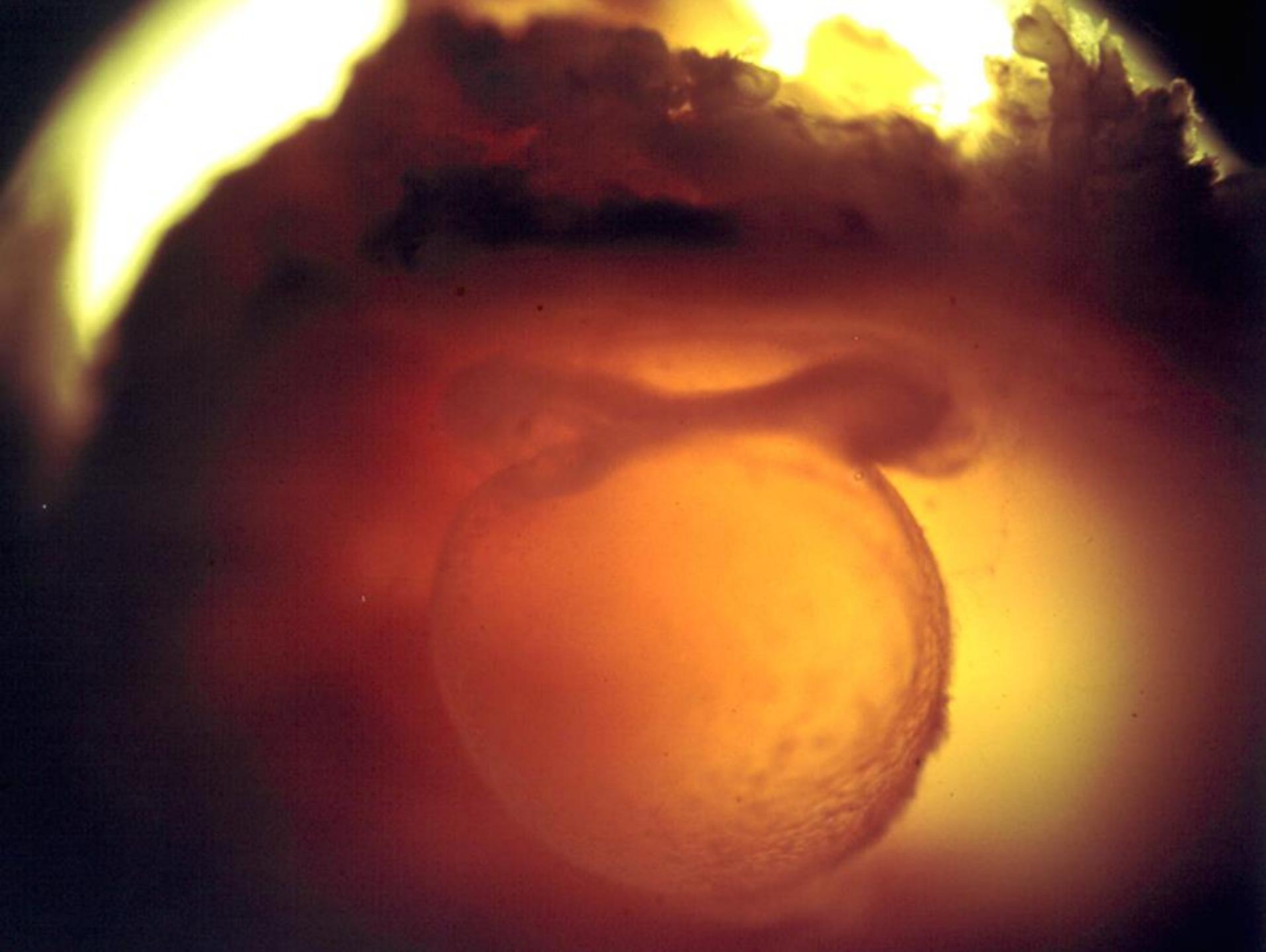


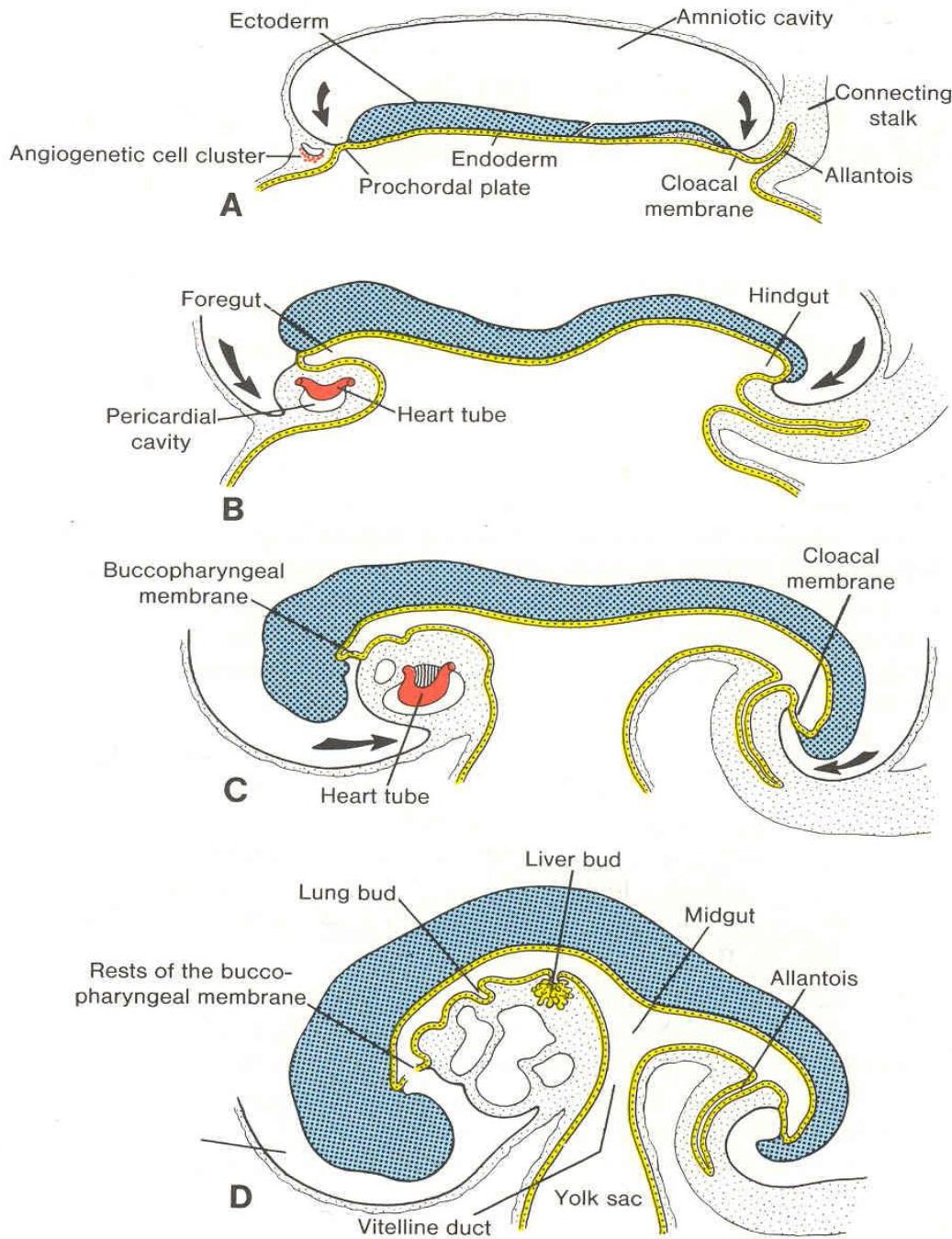
Vývoj hlavy a krku

Kamila Procházková

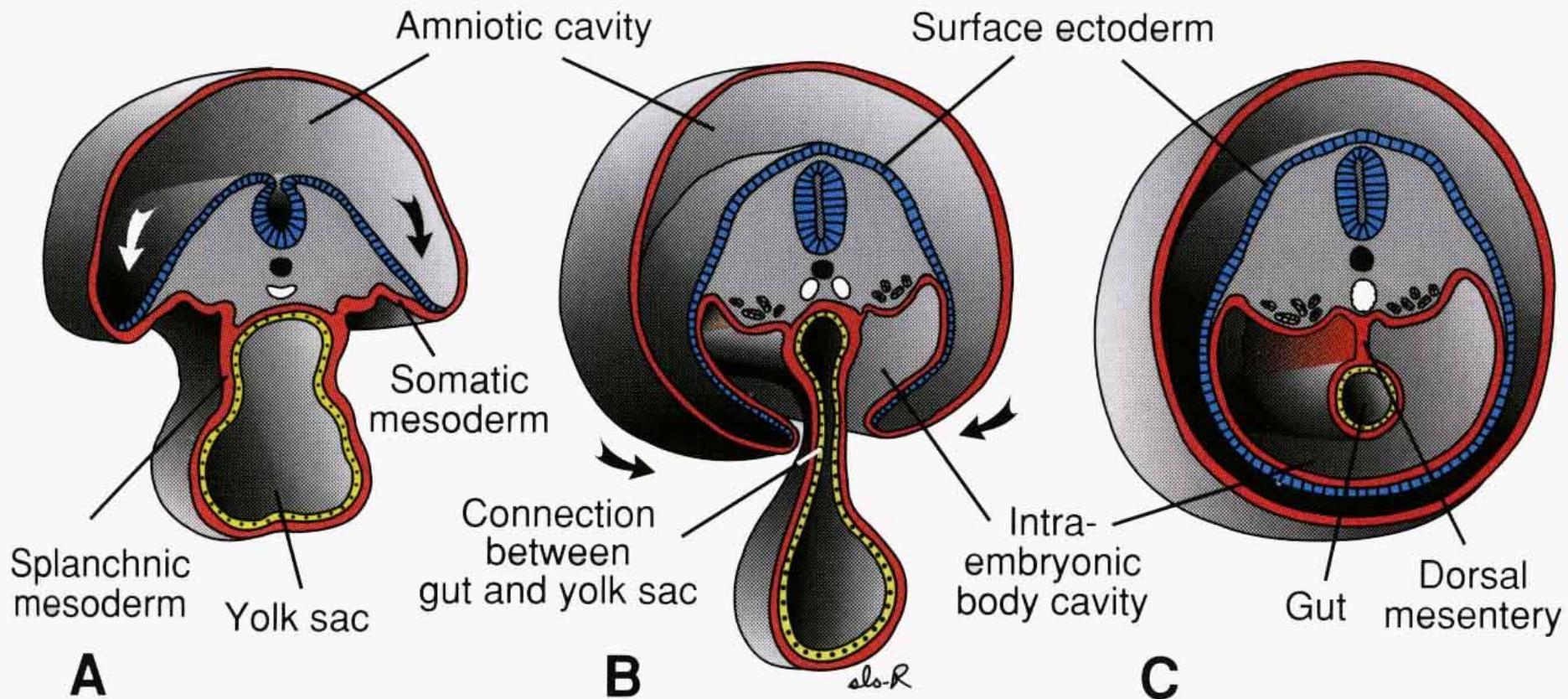




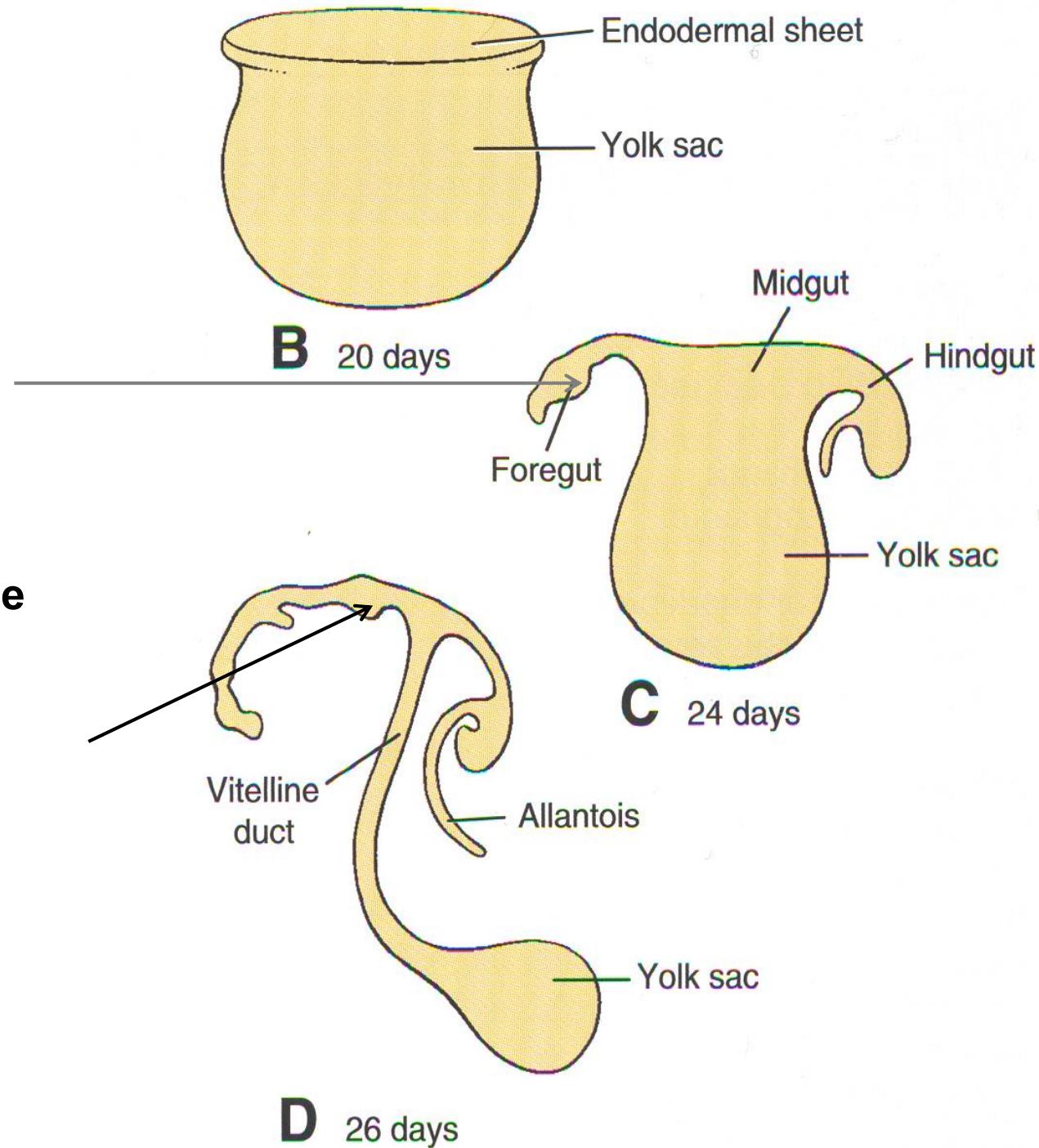
**vznik ohraňujících rýh
vytvoří z trilaminárního
zárodečného terčíku
trojrozměrnou trubici**

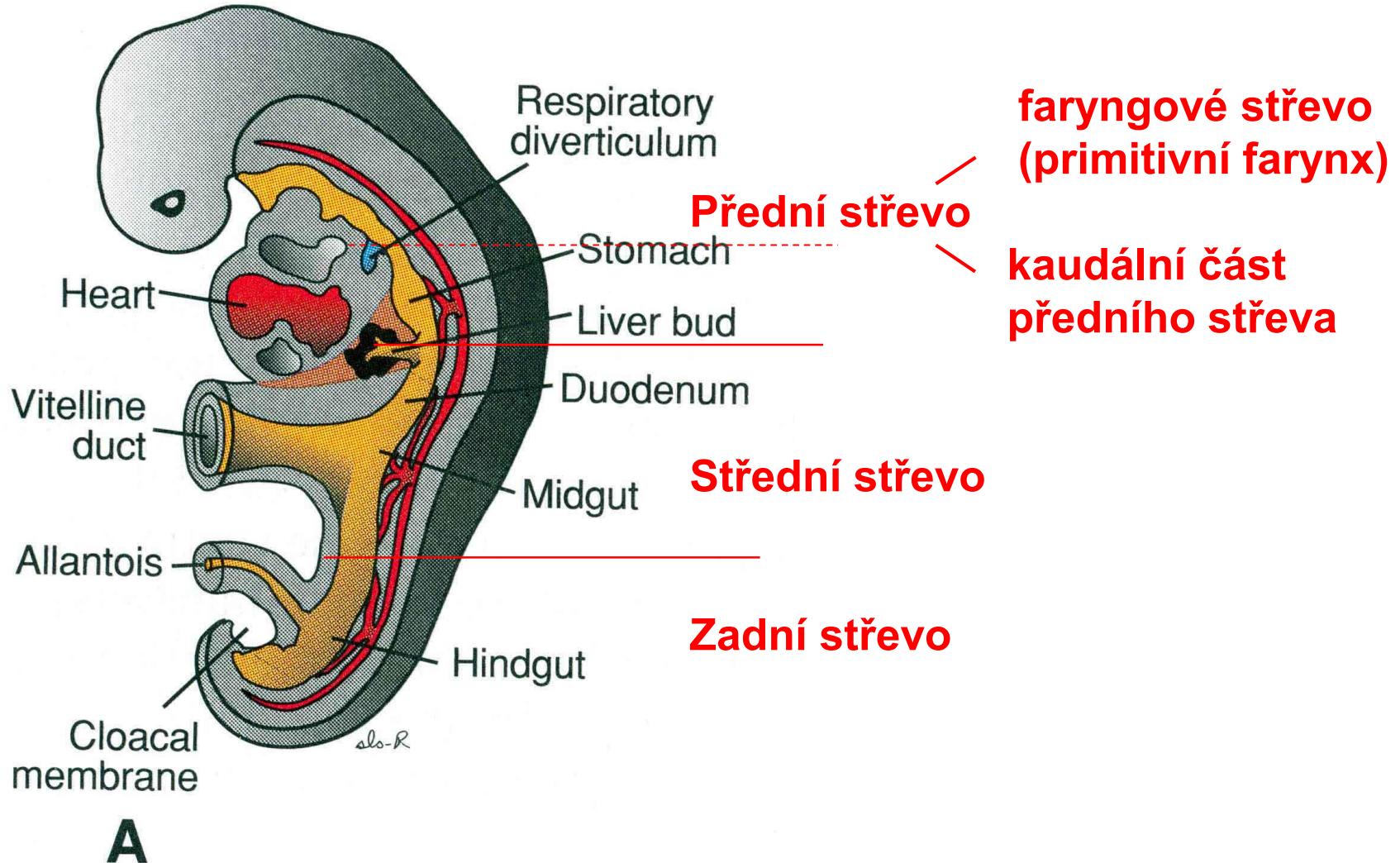


**žloutkový váček, vytváření trávicí trubice
ductus omphaloentericus
uzavírání střeva, mesenterium, coelom**

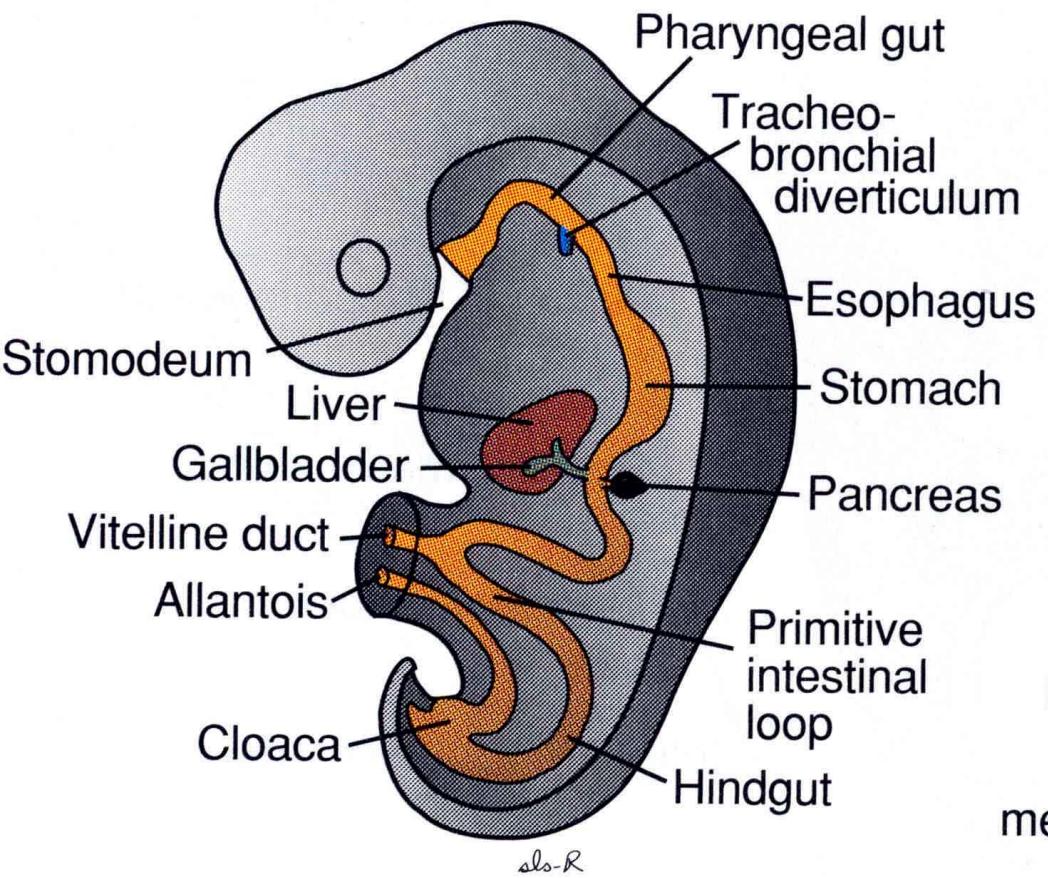


vývoj trávicí trubice vliv ohraňujících rýh

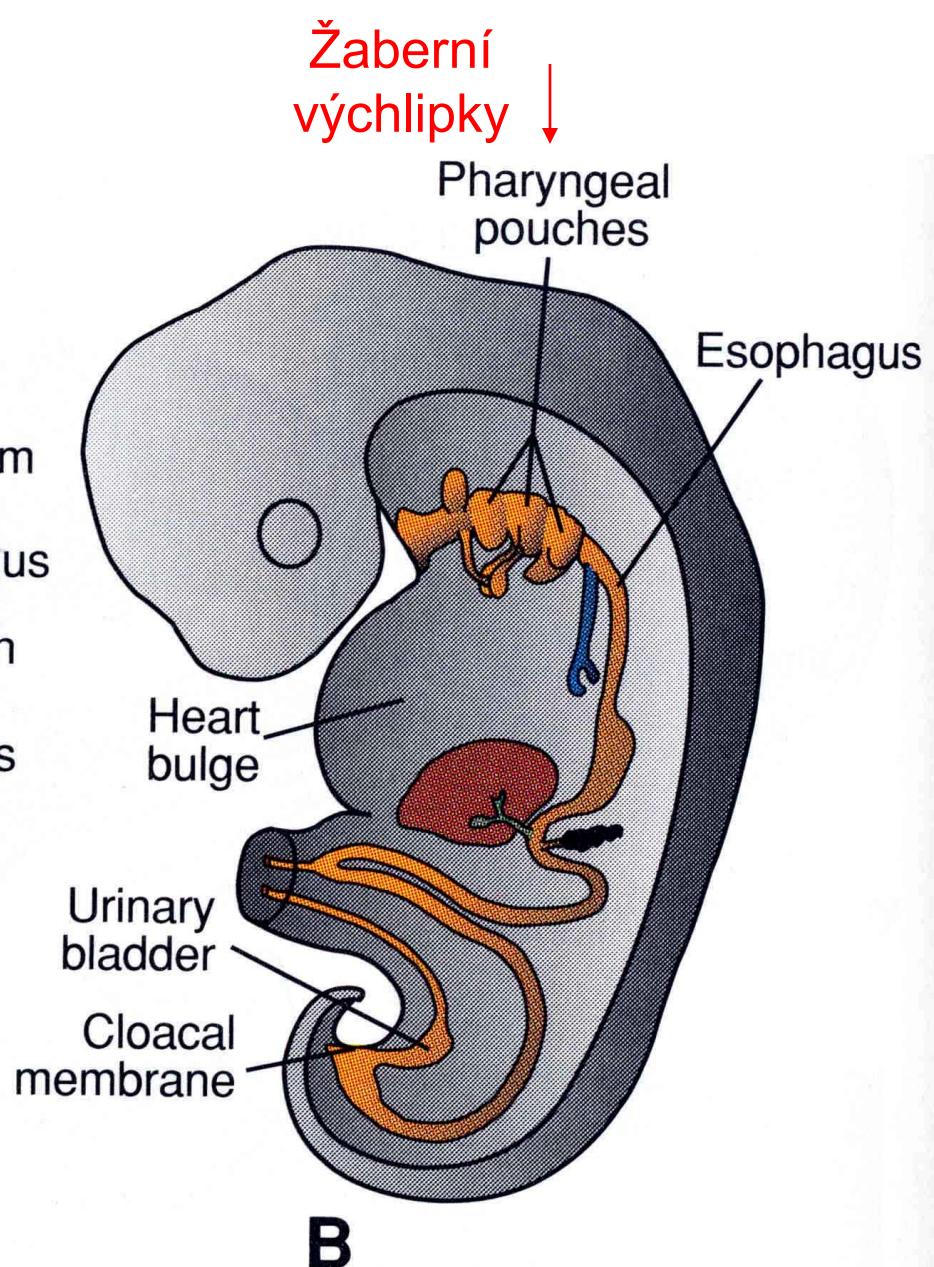




DIFERENCIACE PRIMITIVNÍHO FARYNGU (FARYNGOVÉHO STŘEVA), ŽABERNÍ VÝCHLIPKY, VKLESLINY A OBLOUKY



A



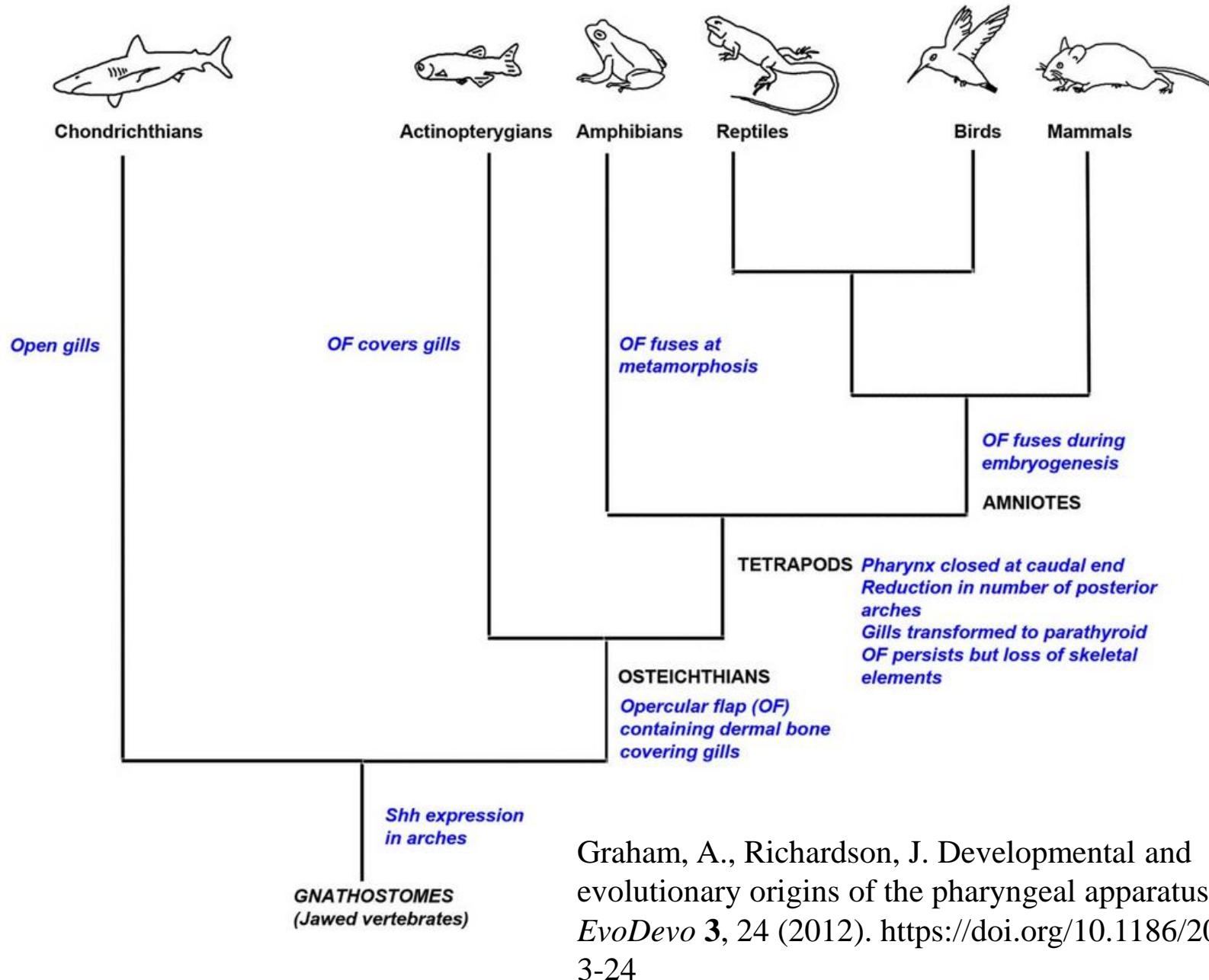
B



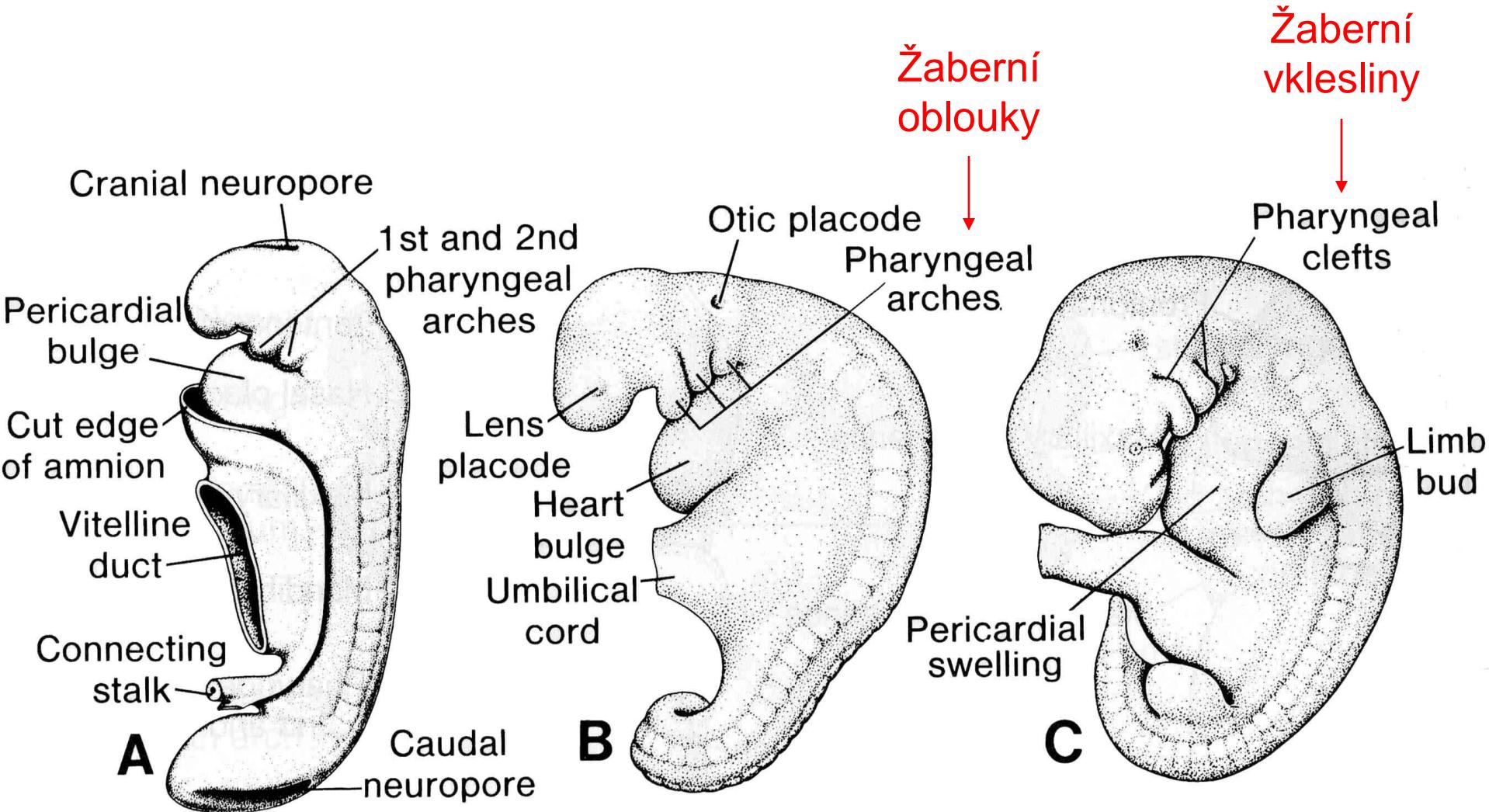
Při pohledu do
tlamy štíky jsou
vidět 4 páry
žaberních oblouků
nesoucích žábry.

Figure 4

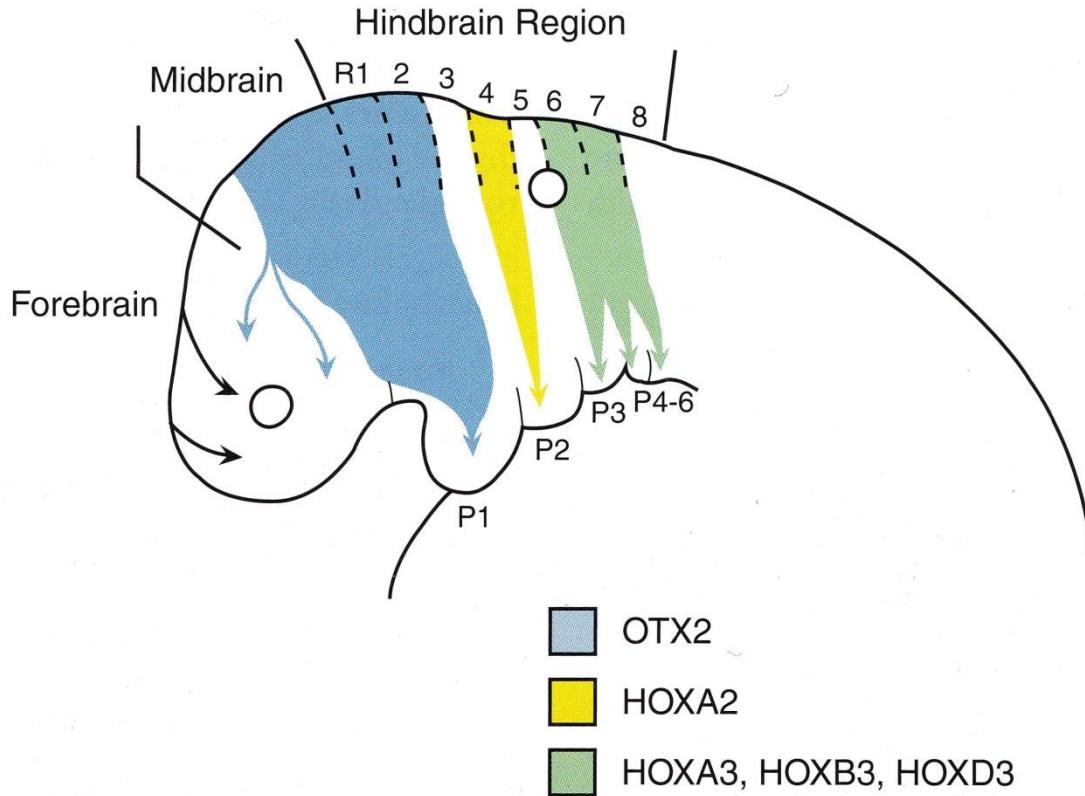
From: [Developmental and evolutionary origins of the pharyngeal apparatus](#)



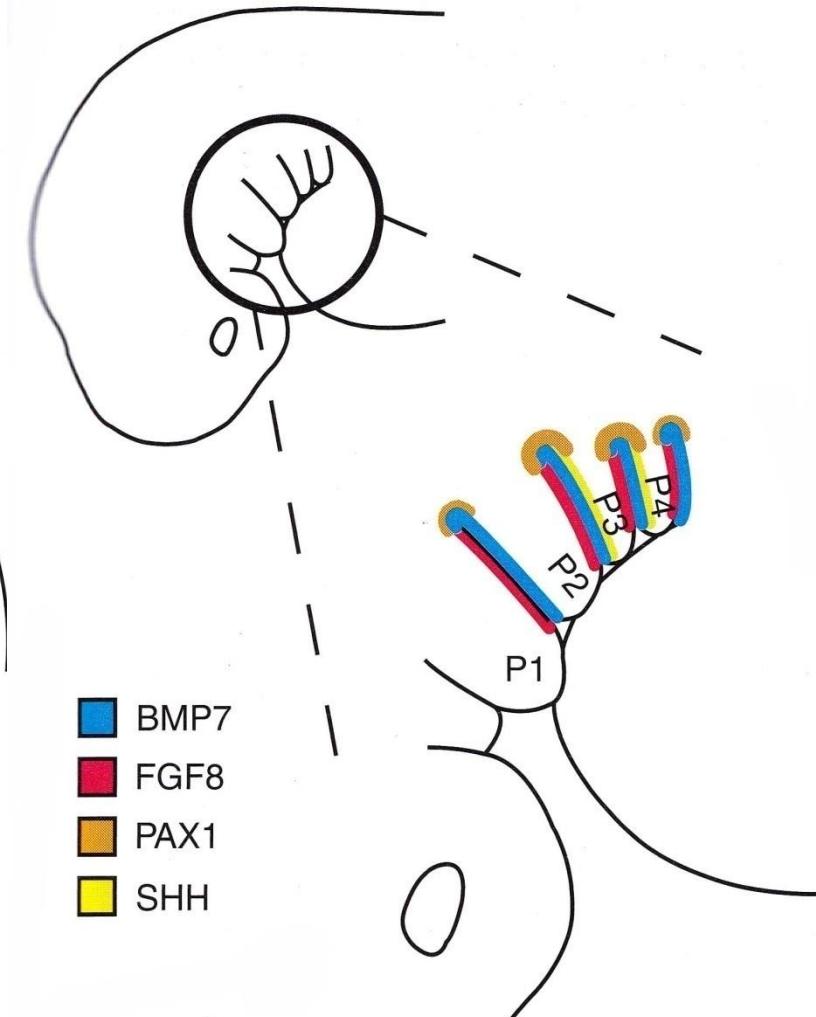
Graham, A., Richardson, J. Developmental and evolutionary origins of the pharyngeal apparatus. *EvoDevo* 3, 24 (2012). <https://doi.org/10.1186/2041-9139-3-24>



Molekulární řízení vzniku žaberních oblouků



exprese genů v migračních
proudech buněk neurální lišty



exprese genů v entodermu žaberních
výchlipek

neuroektoderm

Goosecoid

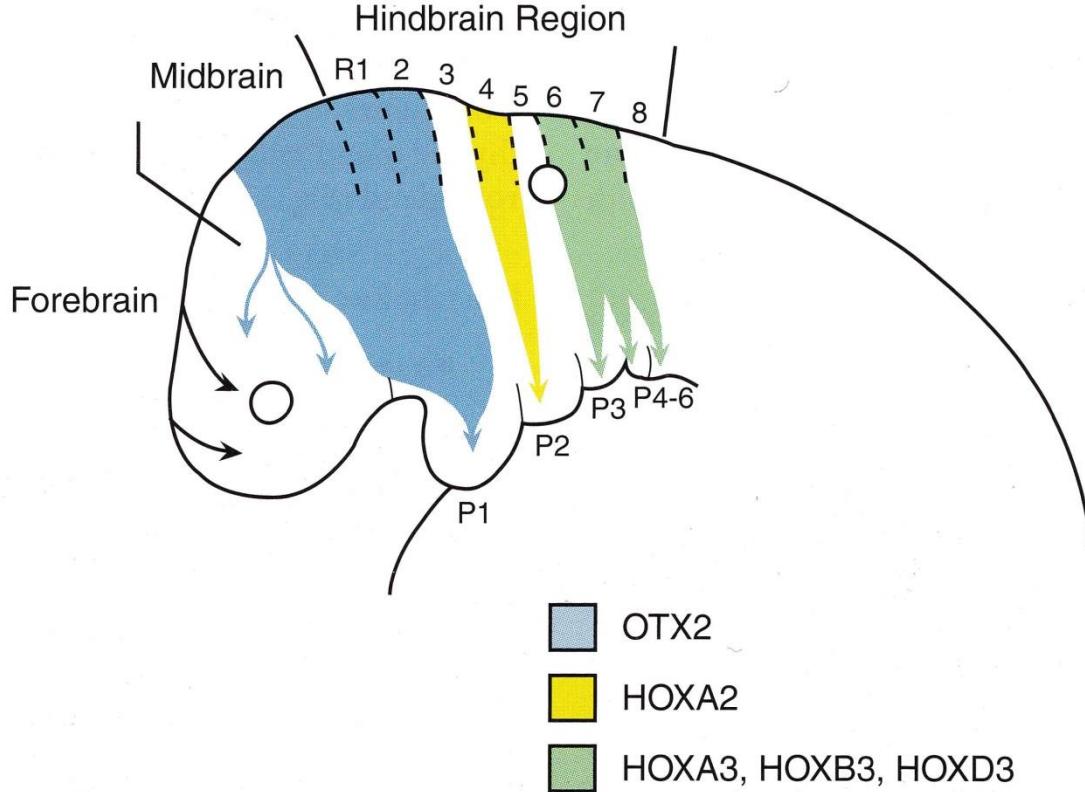


(přes zvýšení
chordinu) a s nimi
noggin a follistatin
snižují BMP4

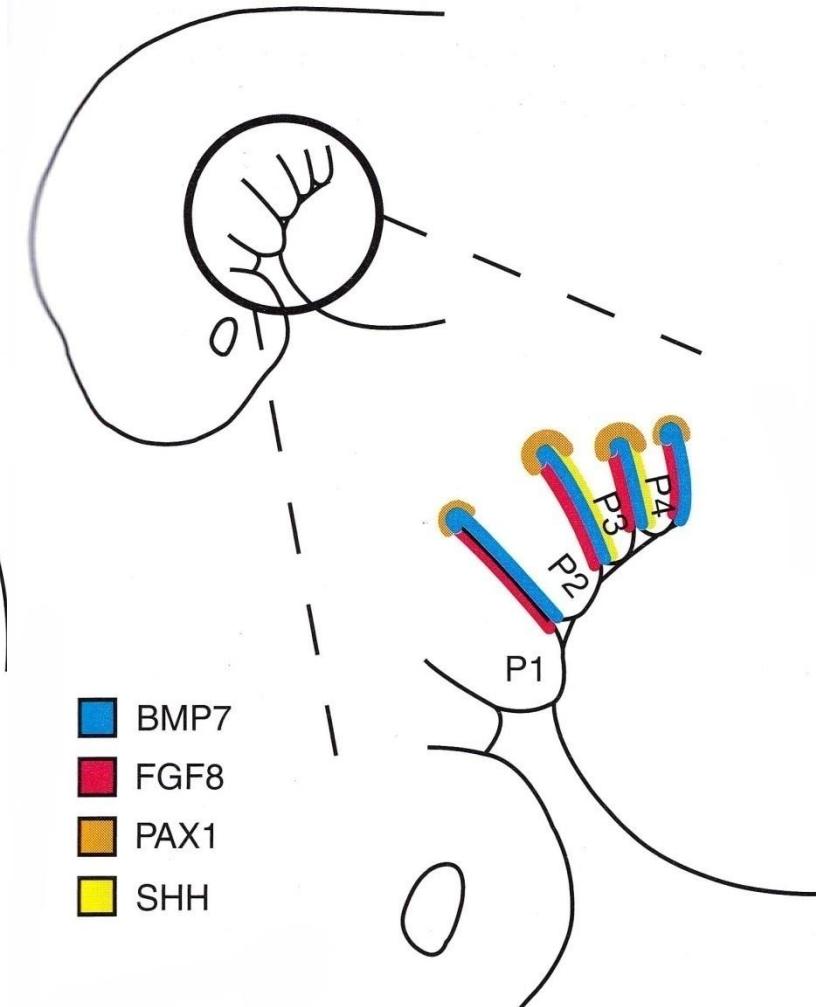
BMP4 BMP4 BMP4 BMP4 BMP4 BMP4 BMP4



Molekulární řízení vzniku žaberních oblouků

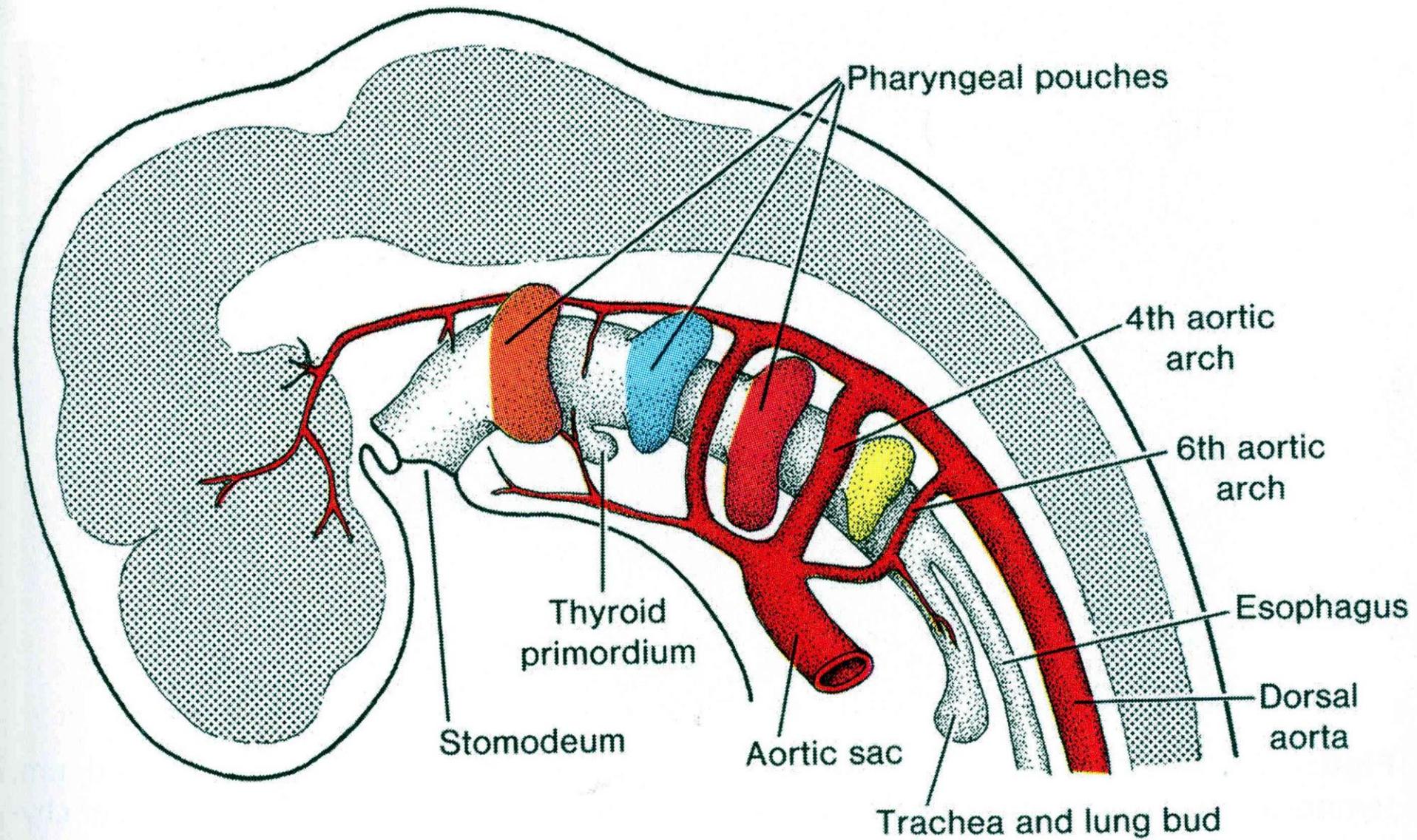


exprese genů v migračních
proudech buněk neurální lišty

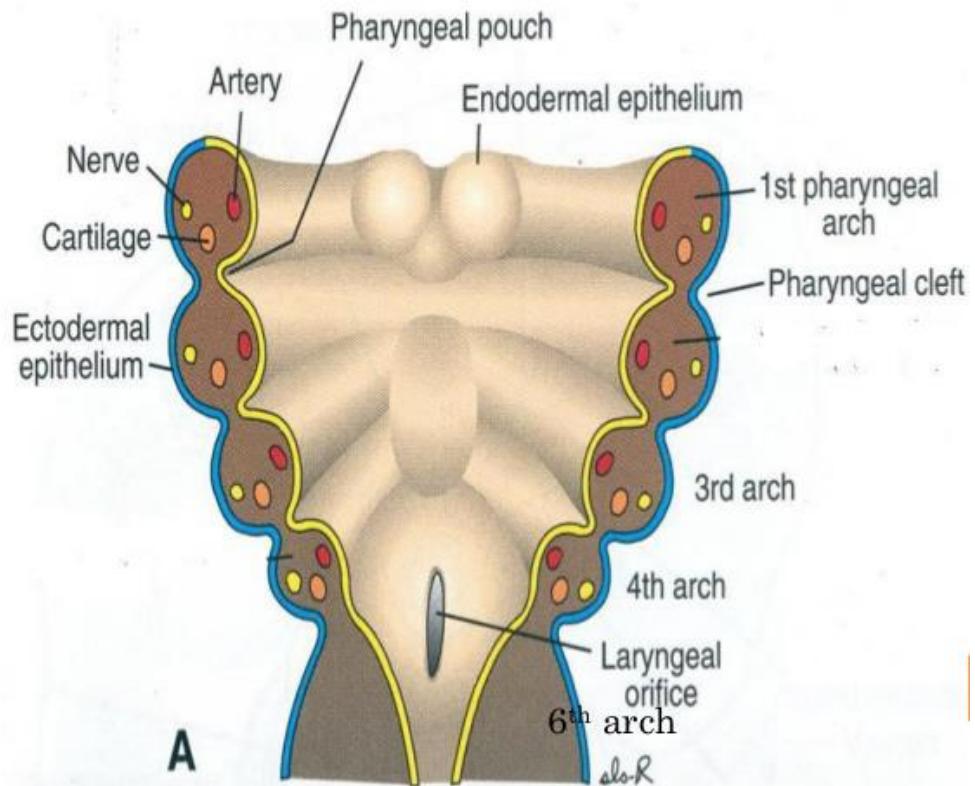


exprese genů v entodermu žaberních
výchlipek

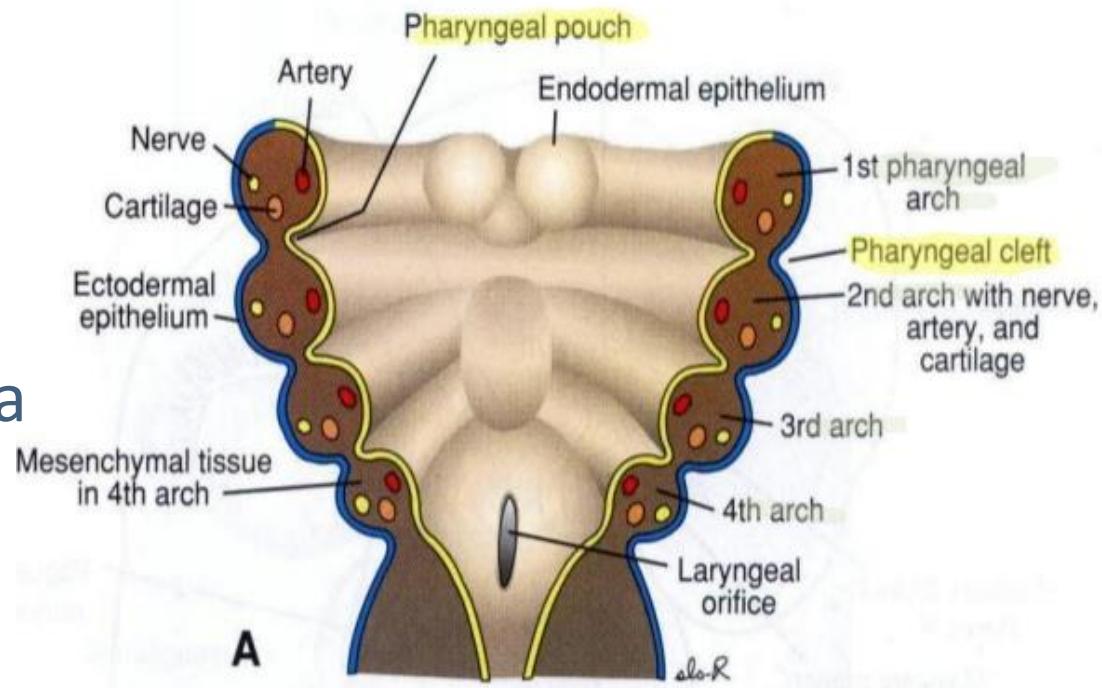




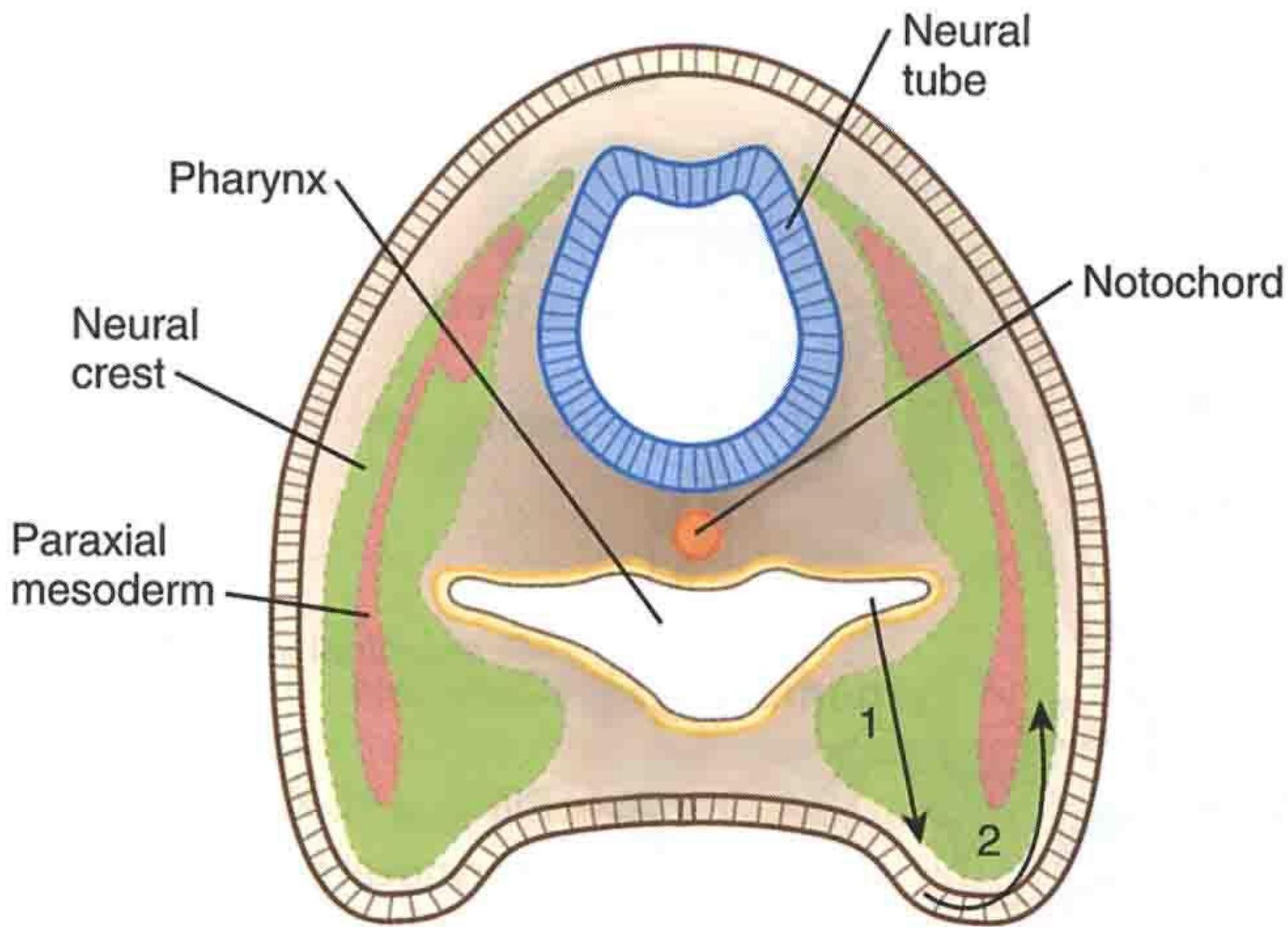
- Faryngový oblouk
- Faryngová výchlipka
- Faryngová štěrbina
- Faryngová membrána



- povrch kryt ektodermem
- mezenchymové jádro (mezoderm + **buňky neurální lišty**)
- aortální oblouk
- chrupavka
- komponenta kosterního svalu inervovaná specifickým nervem
- endodermální výstelka

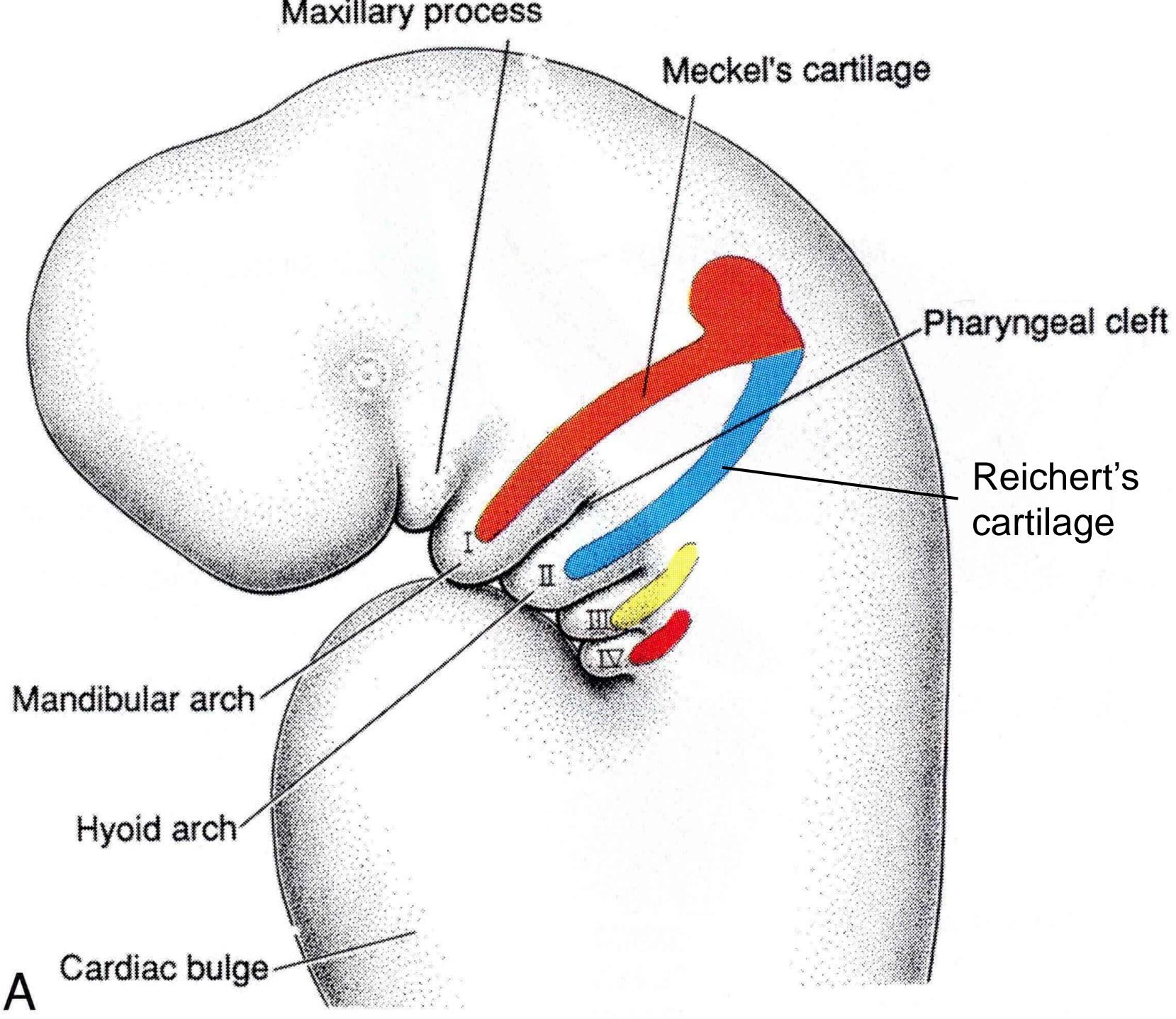


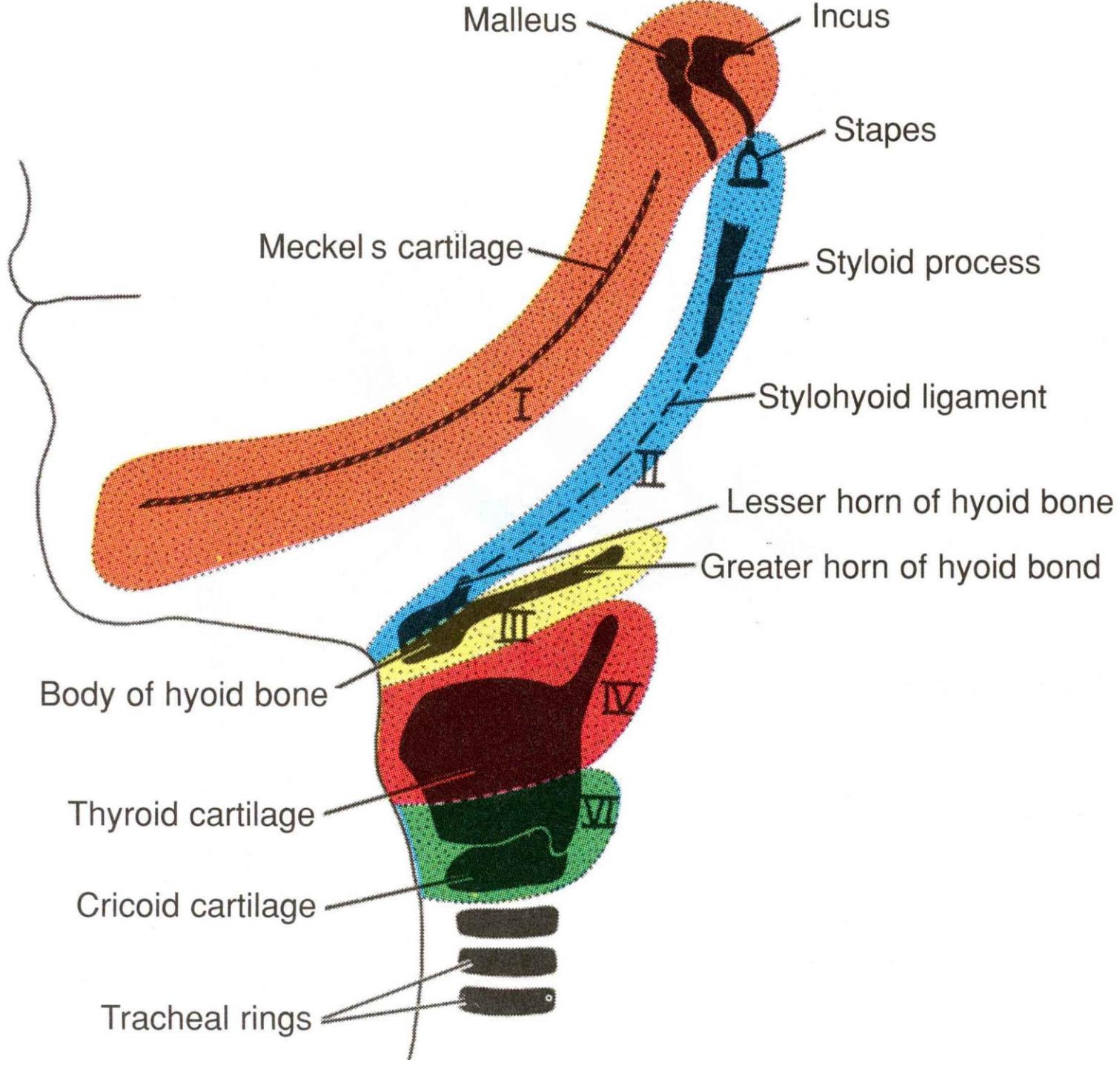
Faryngeální oblouky



Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I mandibular	maxillary artery	V trigeminal	muscles of mastication etc.	malleus, incus spheno-mandibular lig. Meckel cart.	I middle ear auditory tube
	II hyoid	hyoid, stapedial artery	VII facial	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.	II supra-tonsillar fossa
neck	III internal carotid artery	internal carotid artery	IX glossopharyng.	m. stylopharyngeus	parts of hyoid cart.	III thymus, parathyroid gland
	IV right subclavian artery, aorta	right subclavian artery, aorta	X vagus	pharyngeal and laryngeal musculature	laryngeal cart.	IV thymus parathyroid gland ultimobranch. body

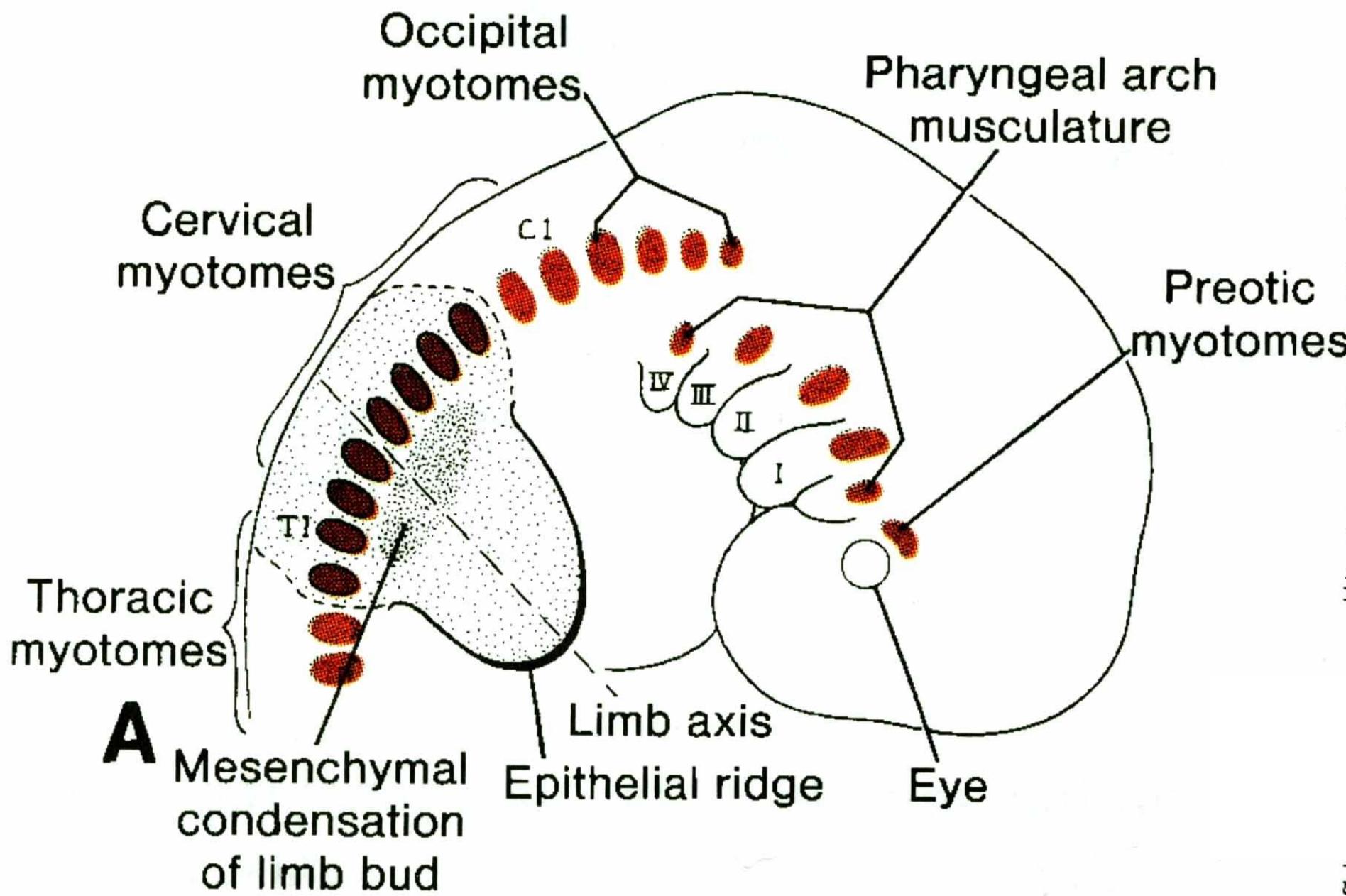
Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I	maxillary artery	V	muscles of mastication etc.	malleus, incus spheno-mandibular lig. Meckel cart.	middle ear auditory tube
	II	hyoid, stapedial artery	VII	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.	supra-tonsillar fossa
	III	internal carotid artery	IX	m. stylopharyngeus	parts of hyoid cart.	thymus, parathyroid gland
	IV	right subclavian artery, aorta	X	pharyngeal and laryngeal musculature	laryngeal cart.	thymus parathyroid gland ultimobranch. body
	IV		vagus			

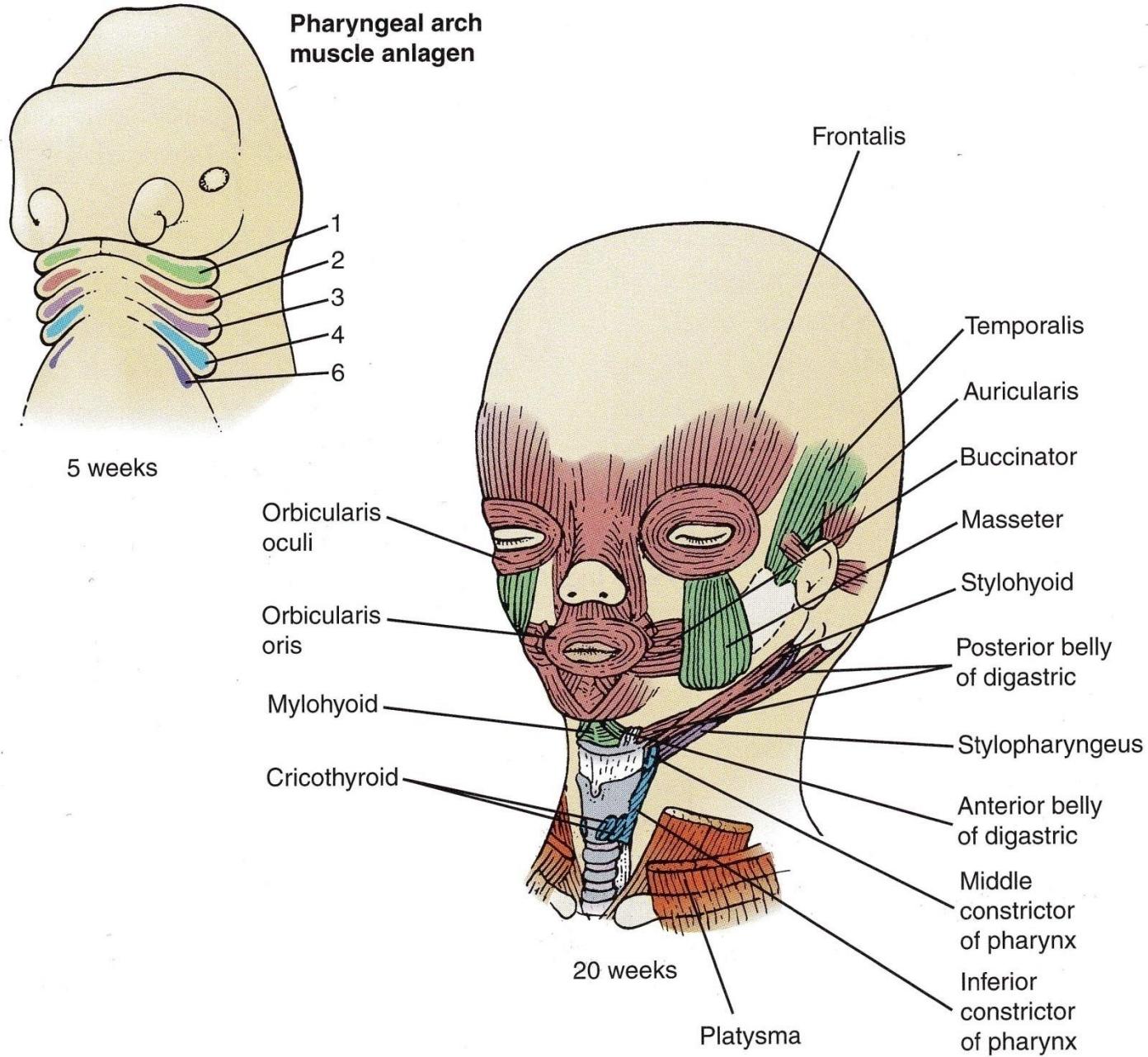




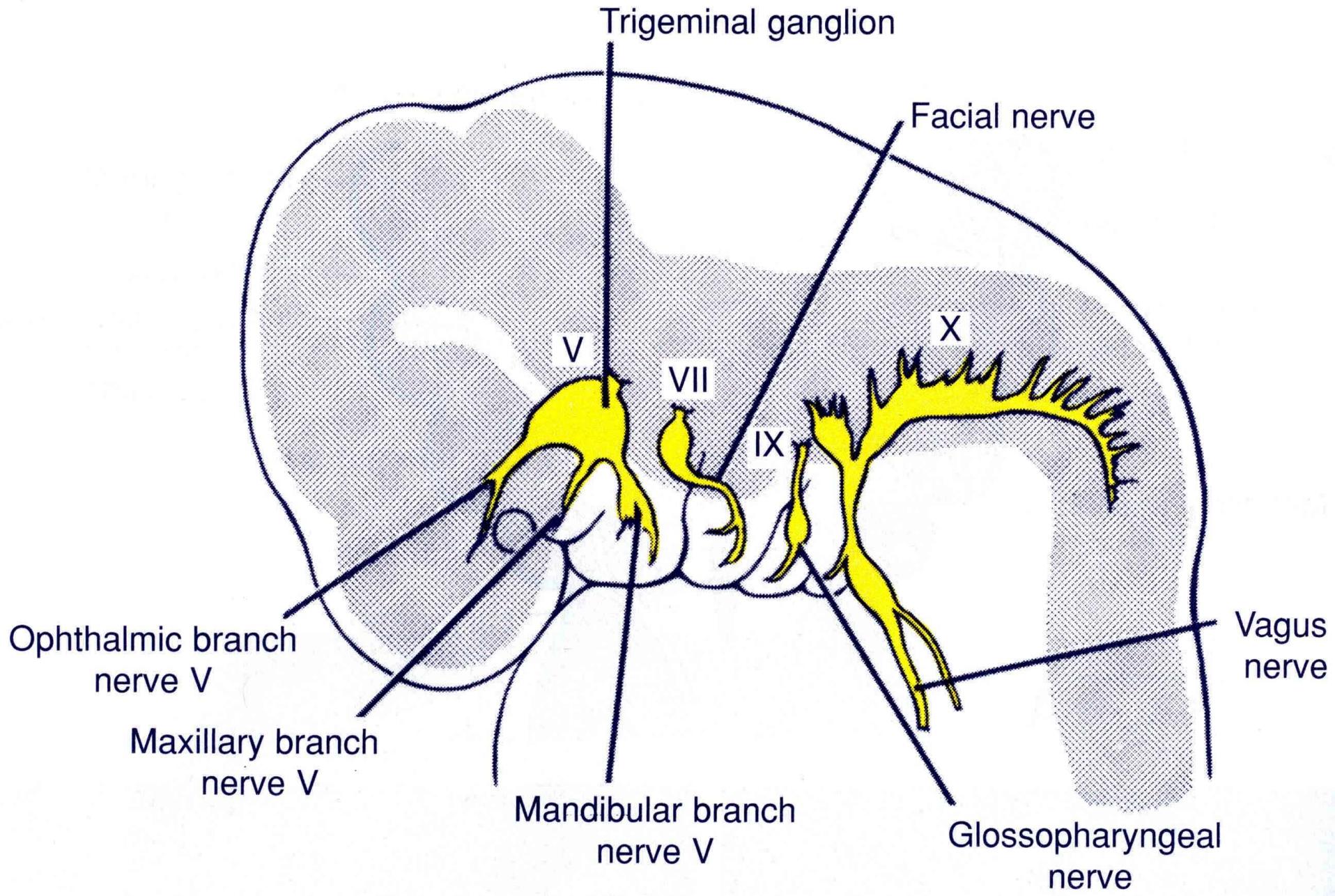
Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I	maxillary artery	V	muscles of mastication etc.	malleus, incus spheno-mandibular lig. Meckel cart.	
	II	hyoid, stapedial artery	VII	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.	I middle ear auditory tube
	III	internal carotid artery	IX	m. stylopharyngeus	parts of hyoid cart.	II supra-tonsillar fossa
	IV	right subclavian artery, aorta	X	pharyngeal and laryngeal musculature	laryngeal cart.	III thymus, parathyroid gland
						IV thymus parathyroid gland ultimobranch. body

neck



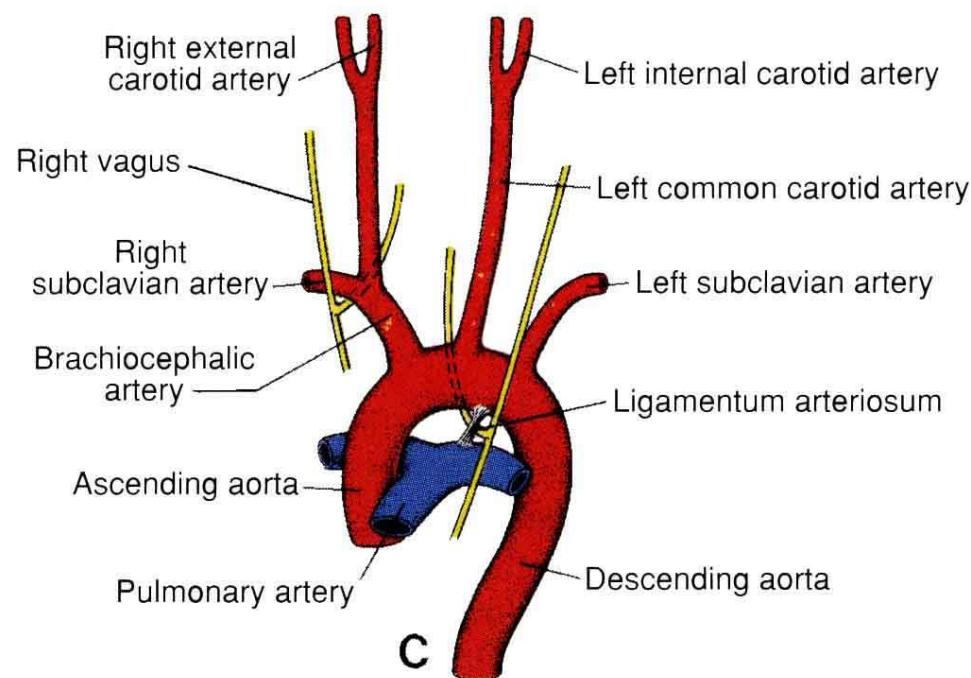
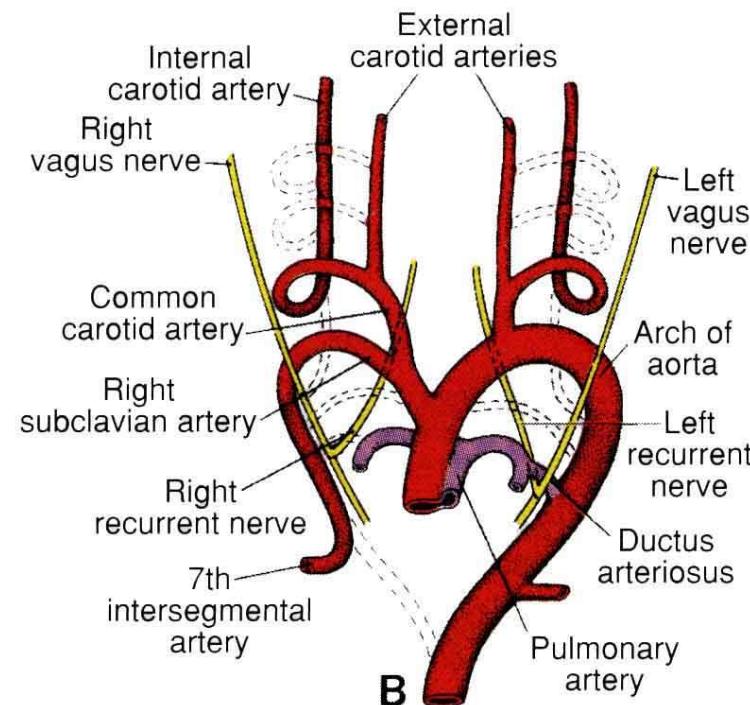
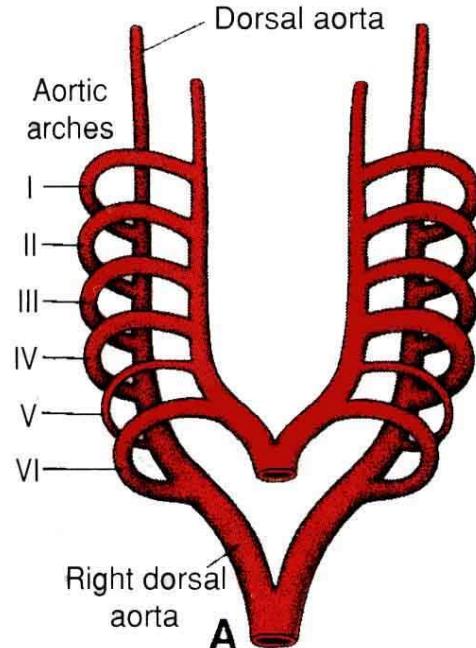


Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I mandibular	maxillary artery	V trigeminal	muscles of mastication etc.	malleus, incus spheno-mandibular lig. Meckel cart.	I middle ear auditory tube
	II hyoid	hyoid, stapedial artery	VII facial	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.	II supra-tonsillar fossa
neck	III internal carotid artery	internal carotid artery	IX glossopharyng.	m. stylopharyngeus	parts of hyoid cart.	III thymus, parathyroid gland
	IV right subclavian artery, aorta	right subclavian artery, aorta	X vagus	pharyngeal and laryngeal musculature	laryngeal cart.	IV thymus parathyroid gland ultimobranch. body

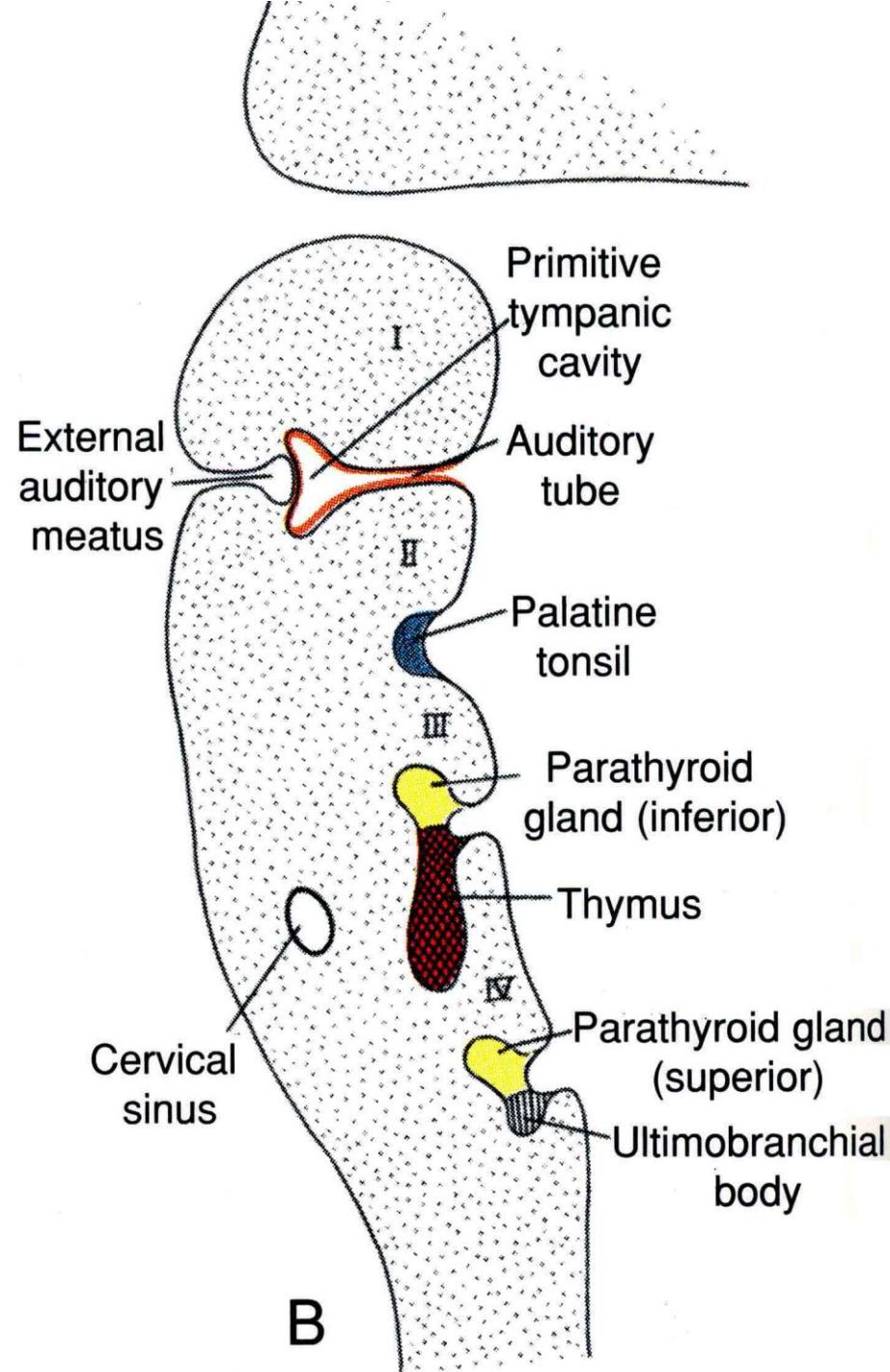
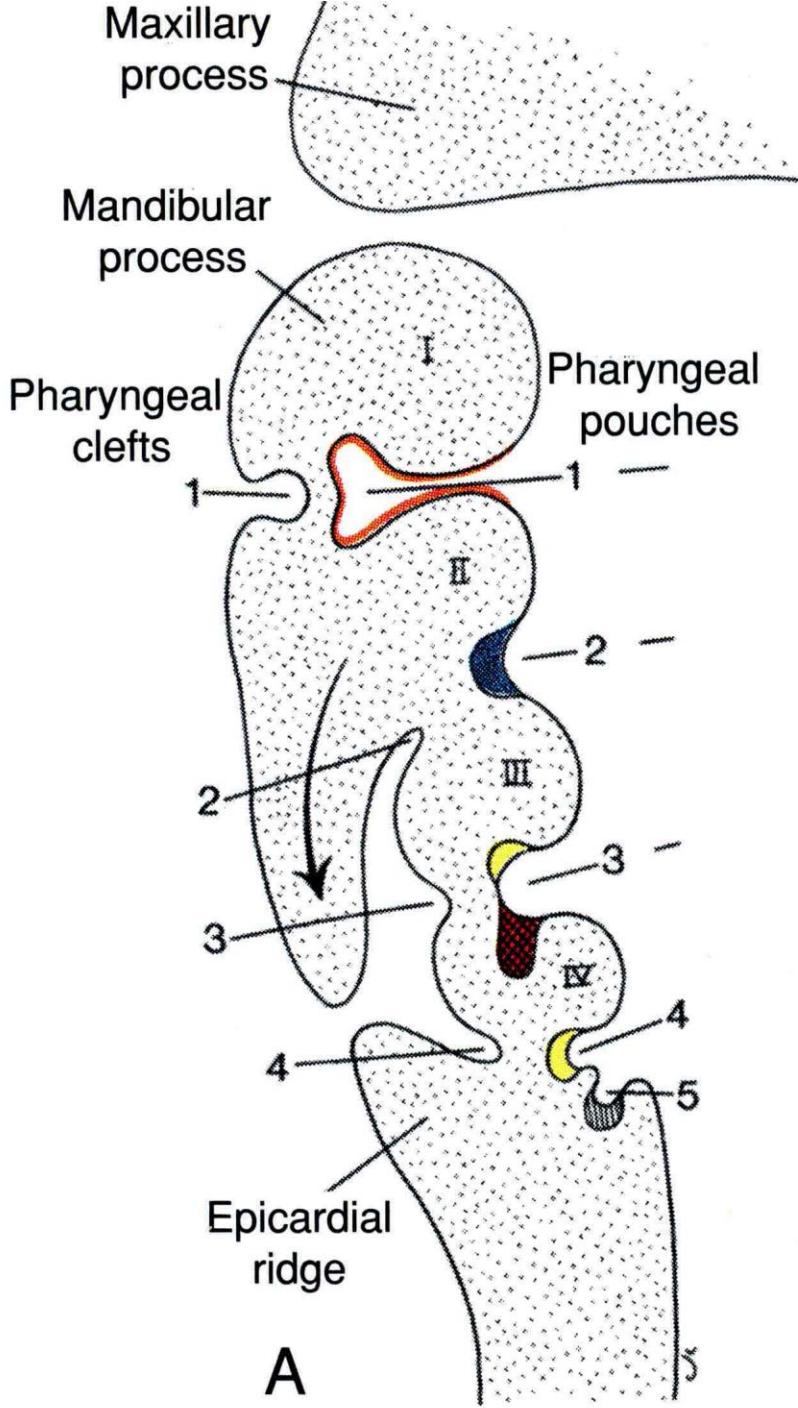


Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I	maxillary artery	V	muscles of mastication etc.	malleus, incus spheno-mandibular lig. Meckel cart.	
	II	hyoid, stapedial artery	VII	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.	I middle ear auditory tube
	III	internal carotid artery	IX	m. stylopharyngeus	parts of hyoid cart.	II supra-tonsillar fossa
	IV	right subclavian artery, aorta	X	pharyngeal and laryngeal musculature	laryngeal cart.	III thymus, parathyroid gland
						IV thymus parathyroid gland ultimobranch. body

neck



Faryngeální výchlipky



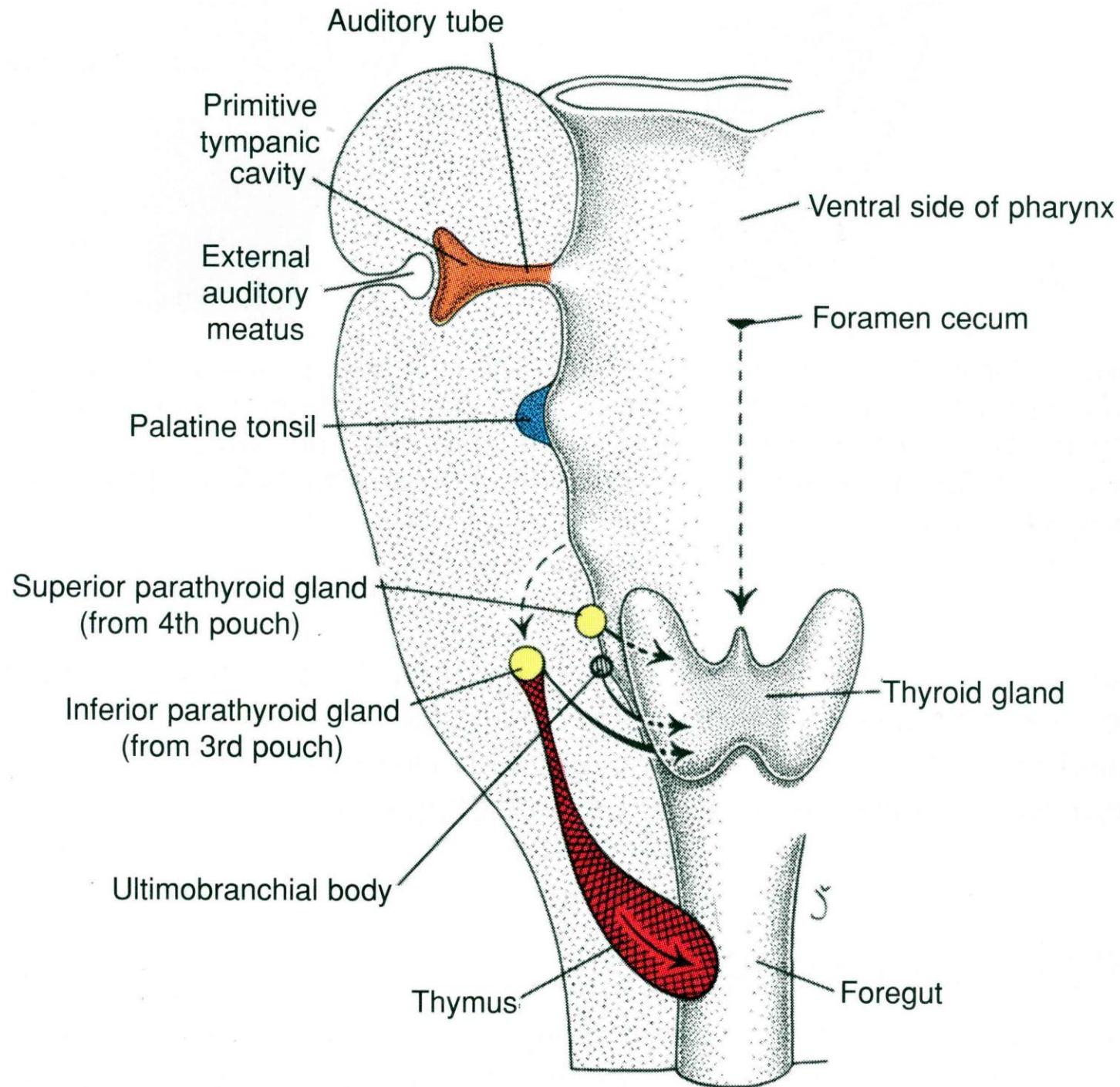
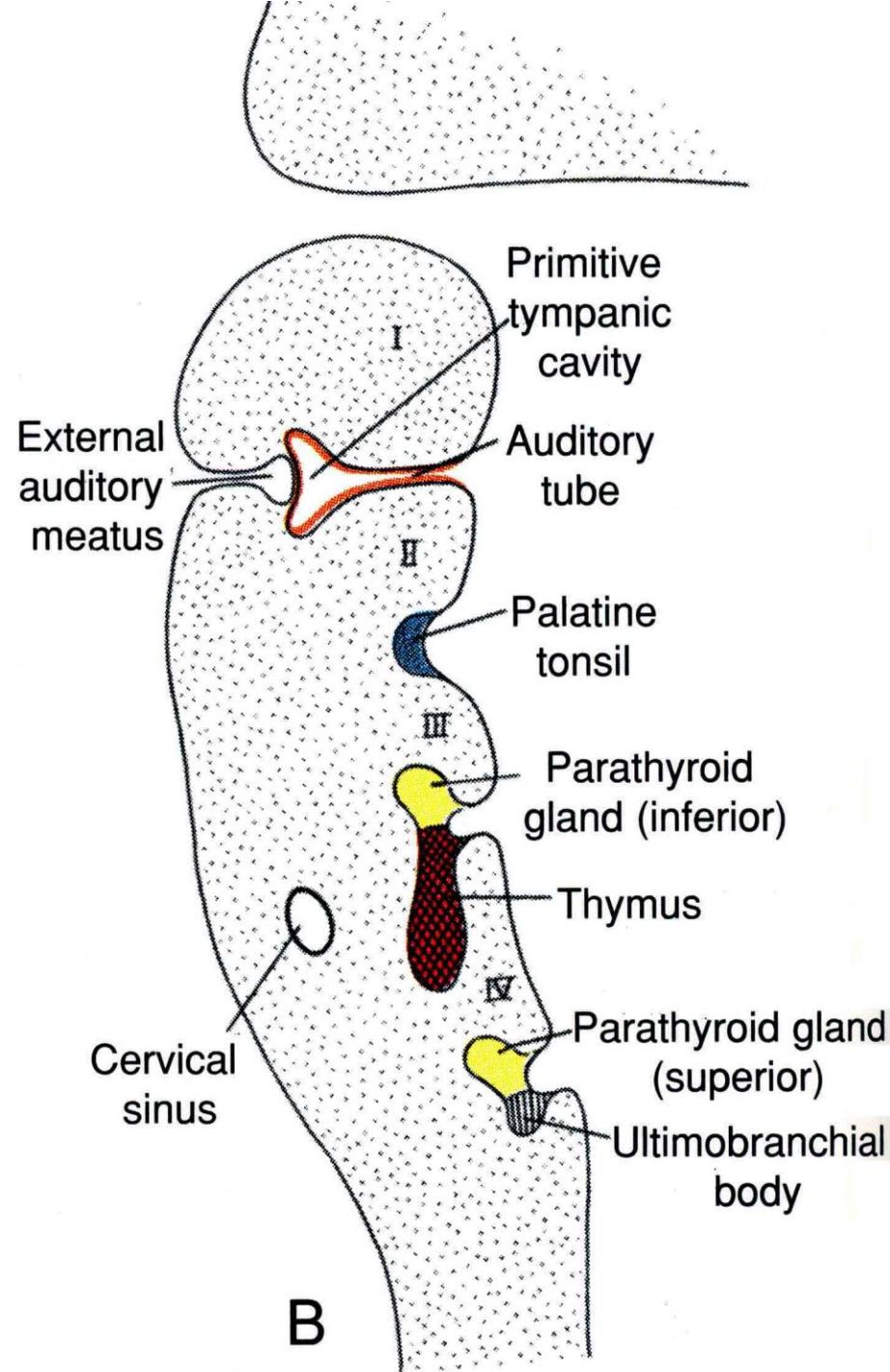
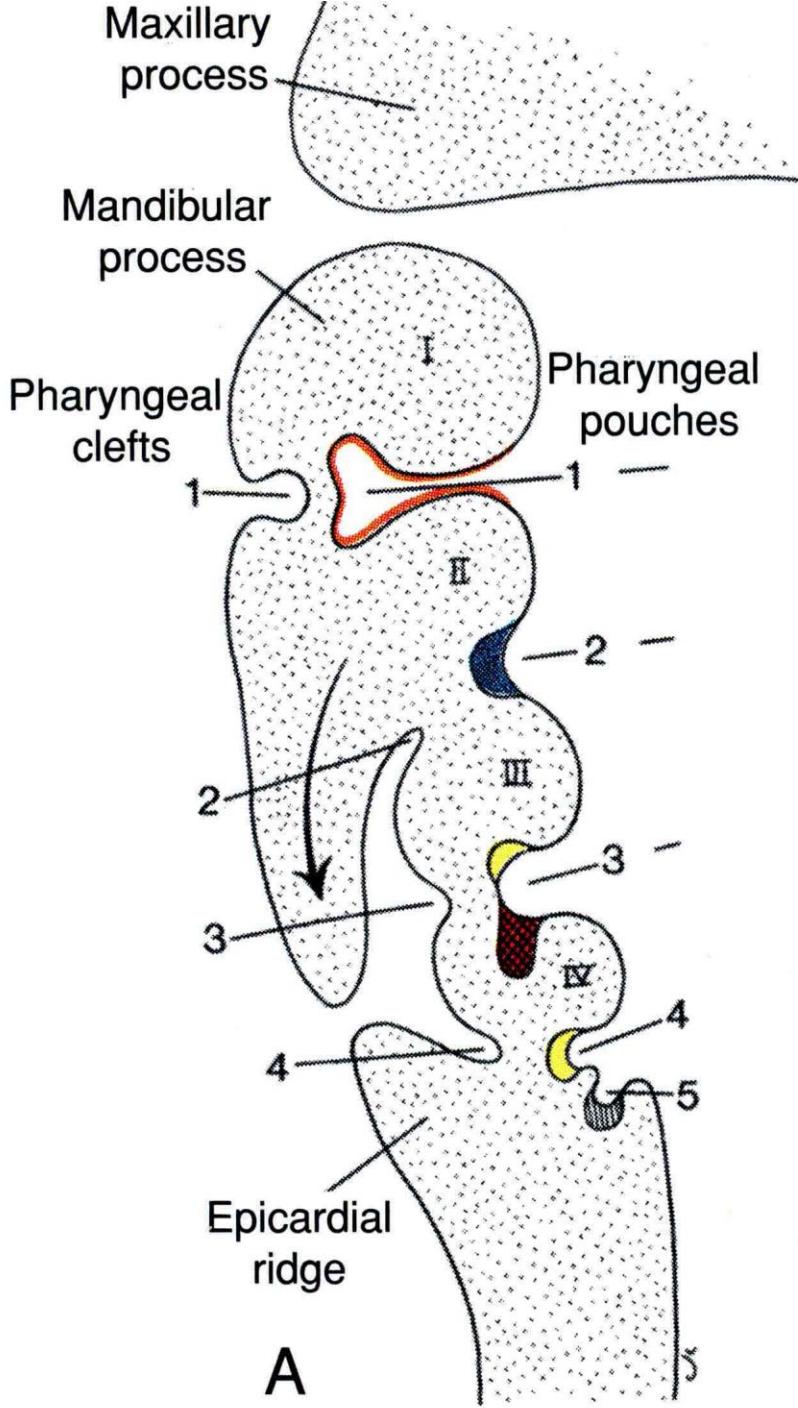
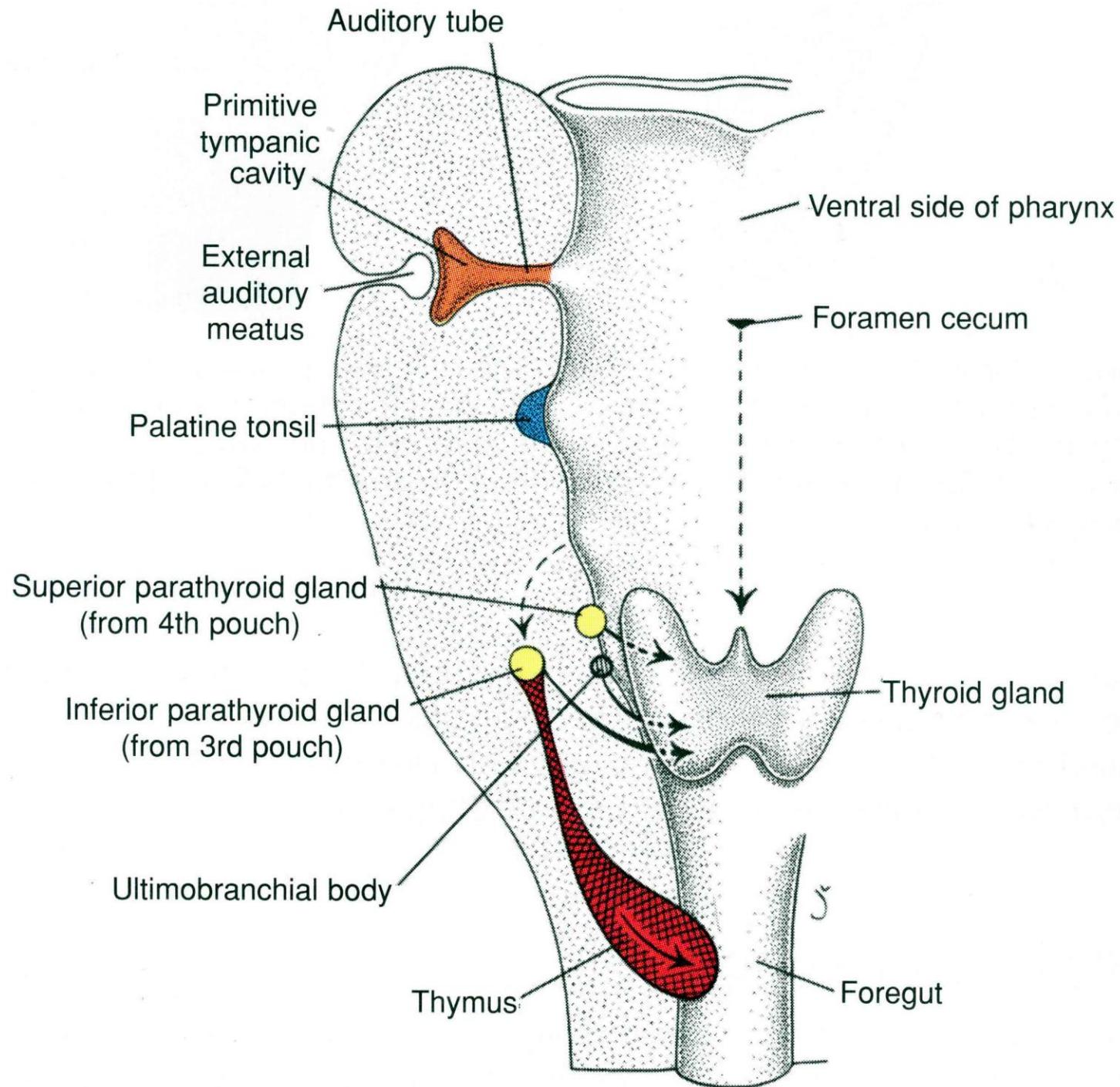


TABLE 17.2 Derivatives of the Pharyngeal Pouches

Pharyngeal Pouch	Derivatives
1	Tympanic (middle ear) cavity
	Auditory (eustachian) tube
2	Palatine tonsils
	Tonsillar fossa
3	Inferior parathyroid gland
	Thymus
4	Superior parathyroid gland
	ultimobranchial body (parafollicular [C] cells of the thyroid gland)

Faryngeální štěrbiny





Derivates of pharyngeal folds	Arch number	Aortic arch	Cranial nerve	Examples of branchiomeric muscles	Skeletal derives	Derivates of pharyngeal pouch
external auditory meatus	I	mandibular	maxillary artery	V trigeminal	muscles of mastication etc.	malleus, incus sphenomandibular lig. Meckel cart.
	II	hyoid	hyoid, stapedius artery	VII facial	muscles of facial expression etc.	stapes, styl. proc., stylohyoid lig., part of hyoid cart.
neck	III	internal carotid artery	IX glossopharyng.	m. stylopharyngeus	parts of hyoid cart.	supra-tonsillar fossa
	IV	right subclavian artery, aorta	X vagus	pharyngeal and laryngeal musculature	laryngeal cart.	thymus, parathyroid gland
	IV					thymus parathyroid gland ultimobranch. body

Malá Beátka dobývá svět. Do osvěty o Treacher-Collins syndromu se zapojují i celebrity



úterý, 12. února 2019, 18:54

O malé Beátce, která trpí Treacher-Collins syndromem (TCS), už jsme psali v jednom z dílů pravidelného seriálu (Ne)Obyčejní. Její rodiče, Eliška a Dalibor, už se v té době snažili dostat do povědomí lidí, co vlastně TCS je. Jejich osvěta nabrala obrovských rozměrů a zapojují se do ní i slavné osobnosti.

Malá Beátka dobývá svět. Do osvěty o u se zapojují

#154500
Table of Contents

MIM Entry

154500

TREACHER COLLINS SYNDROME 1; TCS1

INHERITANCE

- Autosomal dominant

HEAD & NECK

Face

- Malar hypoplasia 
- Projection of scalp hair onto the lateral cheek

Ears

- Malformation of auricle
- Hearing loss, conductive
- Ear tags
- Blind fistulas

Eyes

- Downslanting palpebral fissures
- Lower eyelid coloboma
- Partial absence of lower eyelashes

Mouth

- Cleft palate (rare)
- Palatopharyngeal incompetence
- Mandibular hypoplasia
- Macrostomia 

MOLECULAR BASIS

- Caused by mutation in the treacle gene (TCOF1, [606847.0001](#))

Contributors: Ada Hamosh - updated : 02/13/2016

Creation Date: John F. Jackson : 6/15/1995

Edit History: joanna : 02/11/2022

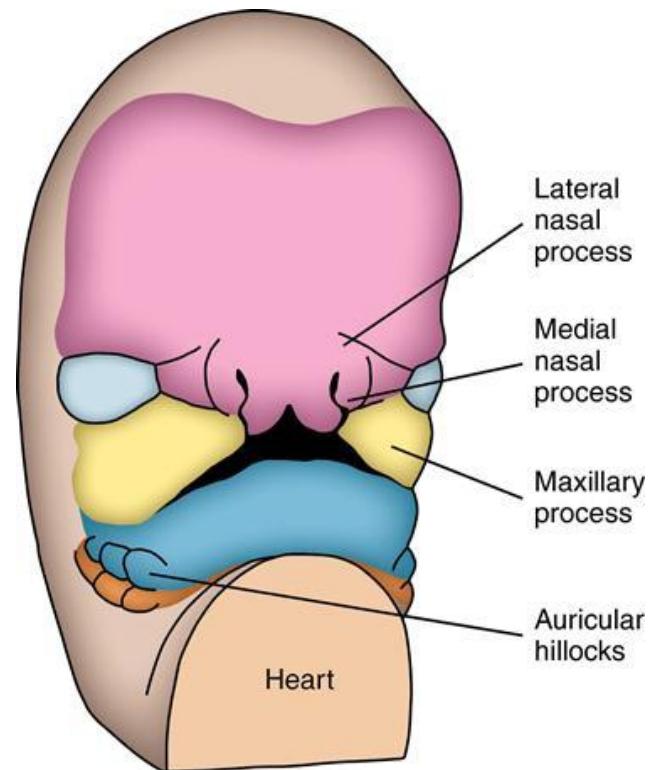
zapojují se do ní i slavné osobnosti.

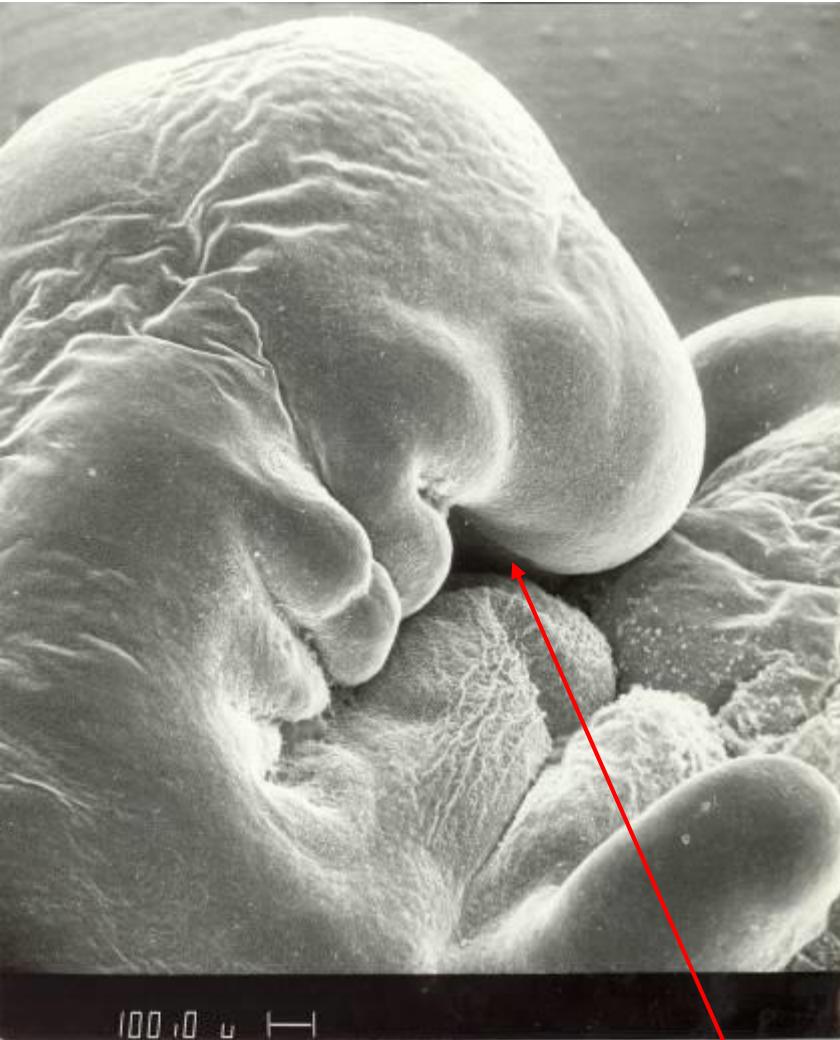


5), už jsme psali v jednom z Dalibor, už se v té době snažili sbrala obrovských rozměrů a

**VÝVOJ OBLIČEJE,
ÚSTNÍ A NOSNÍ DŮTINY,
PATRA A JAZYKA**

- 4. – 10. týden vývoje
- Frontonasální výběžek
- 1. FO
 - Párový maxilární výběžek
 - Párový mandibulární výběžek

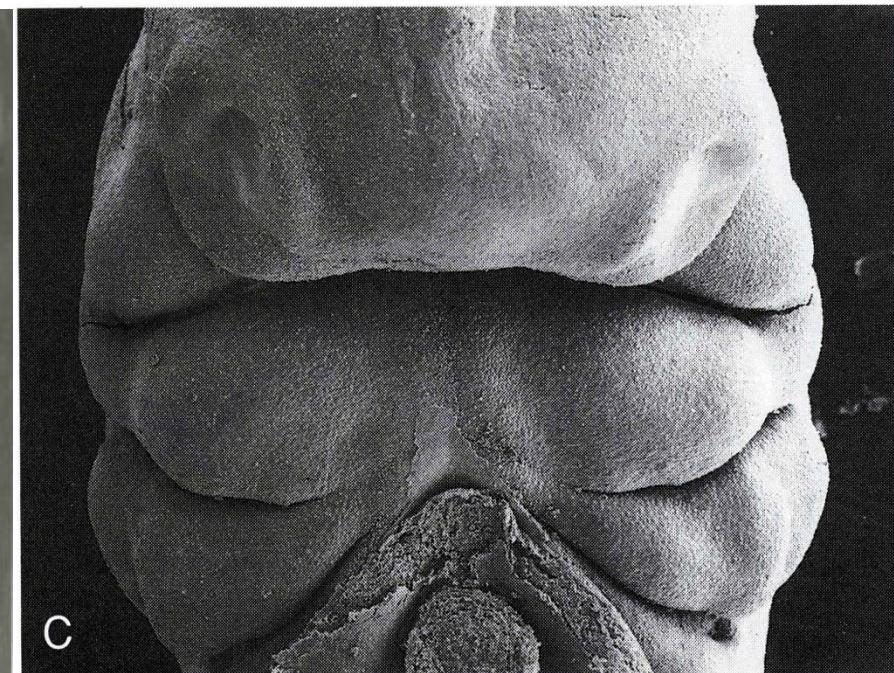
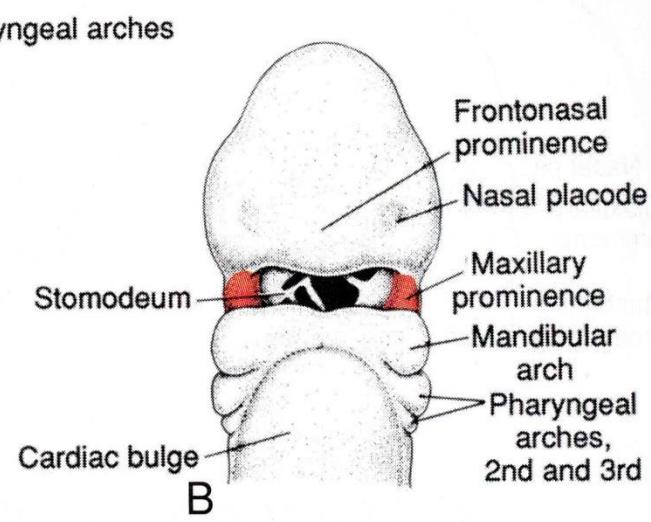
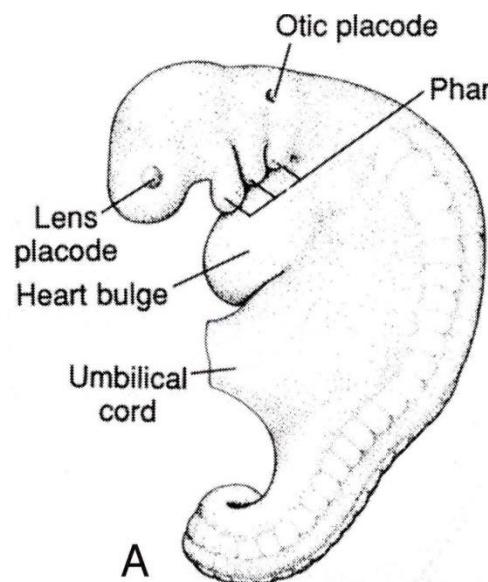


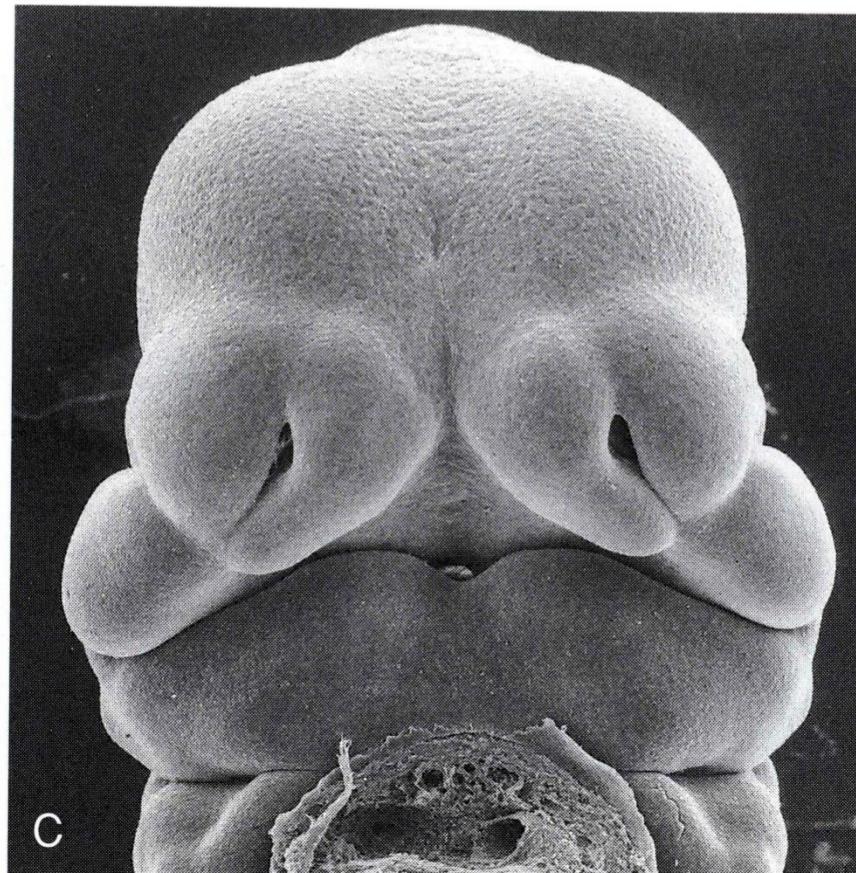
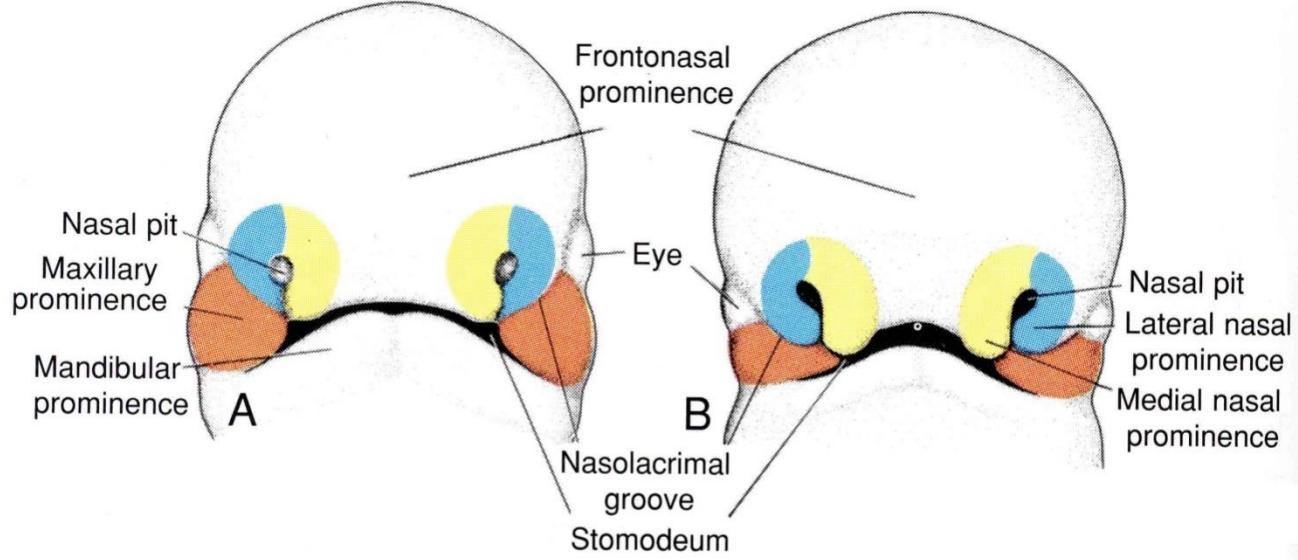


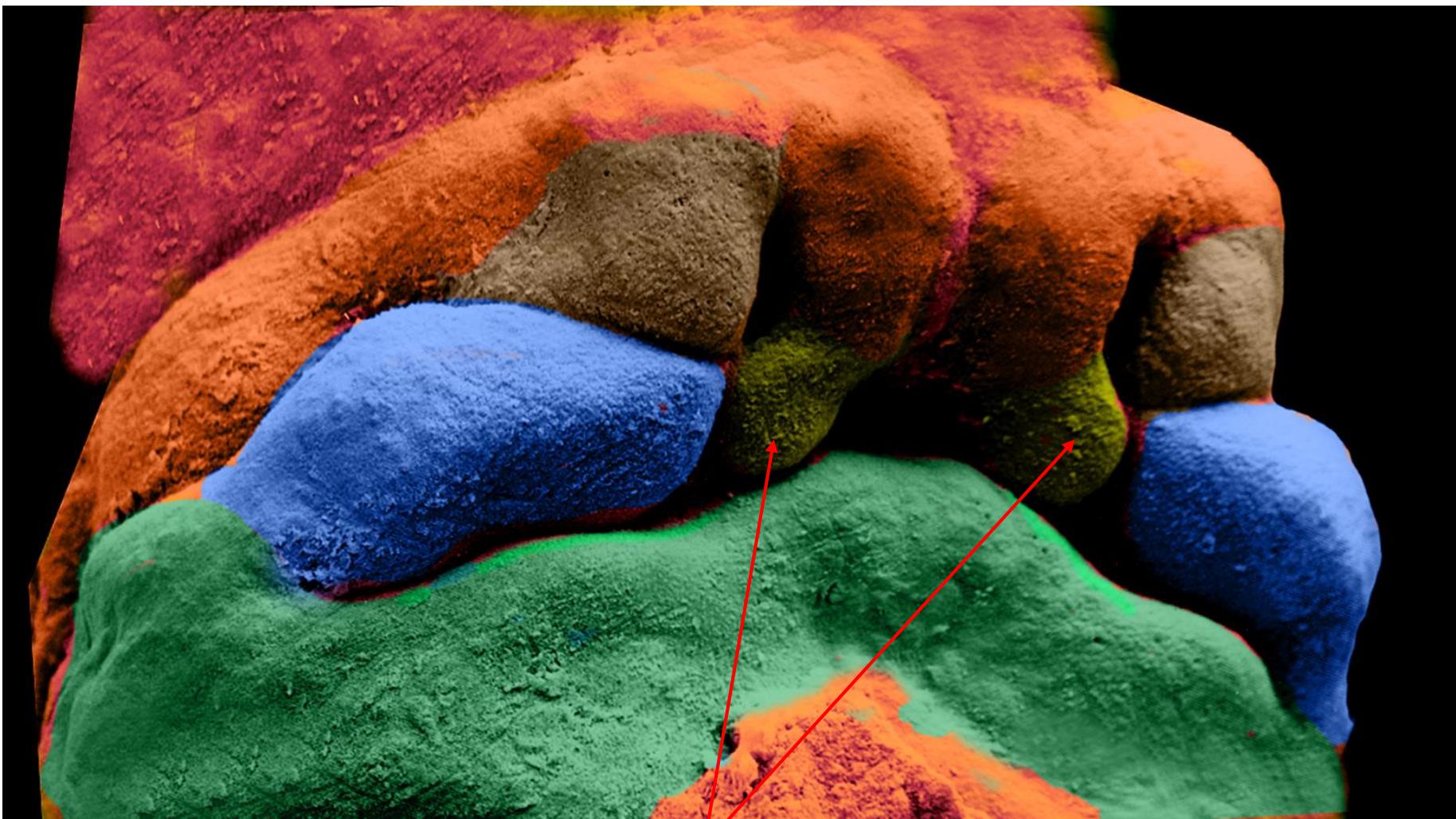
stomodeum



100.0 μm

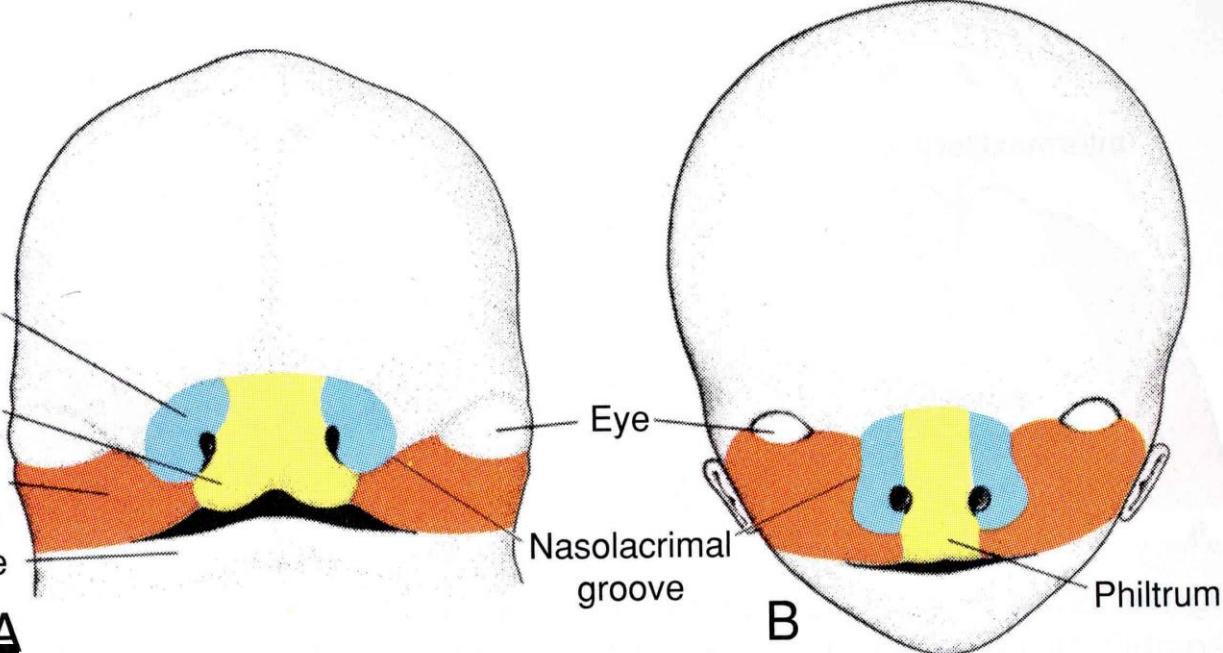




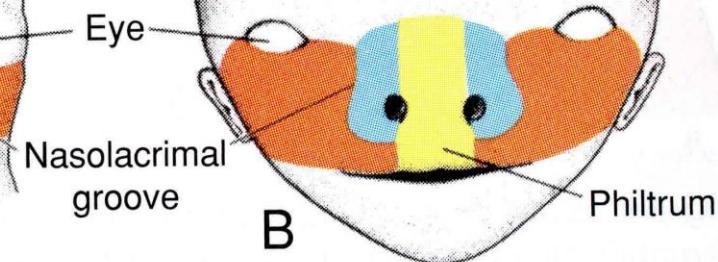


premaxilární výběžky

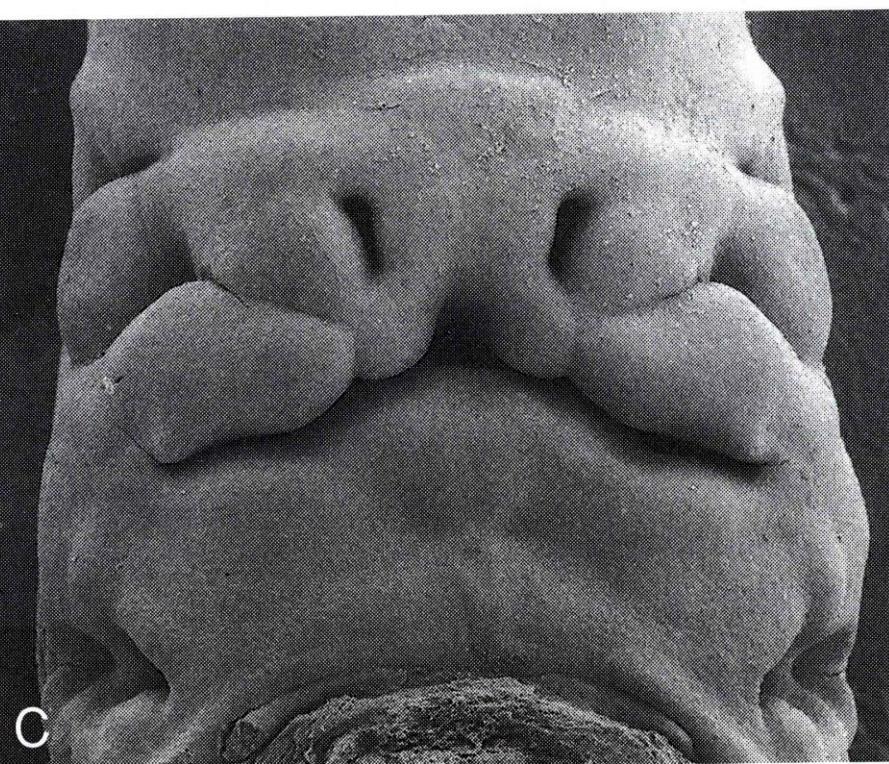
Lateral nasal prominence
Medial nasal prominence
Maxillary prominence
Mandibular prominence



A

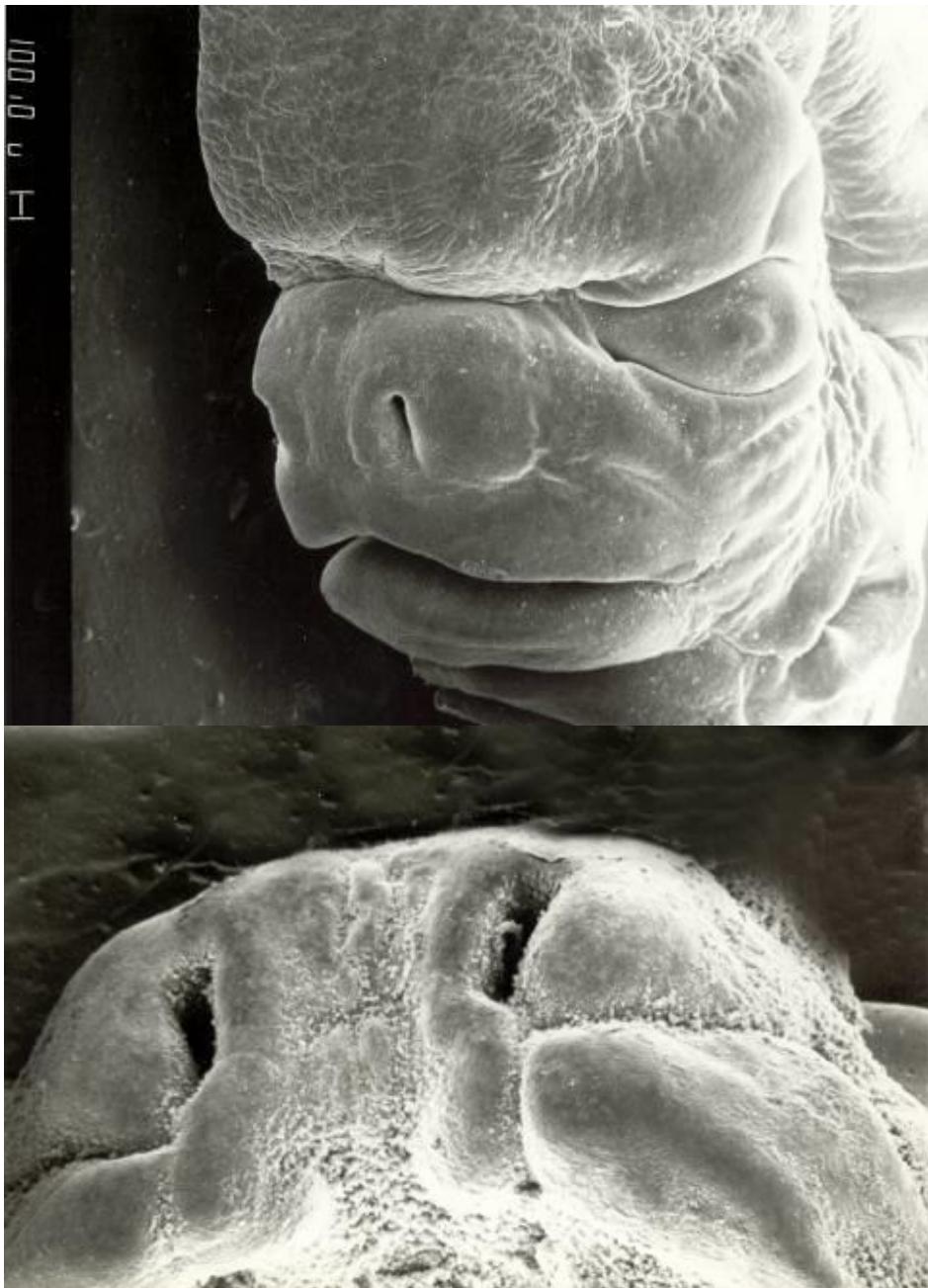


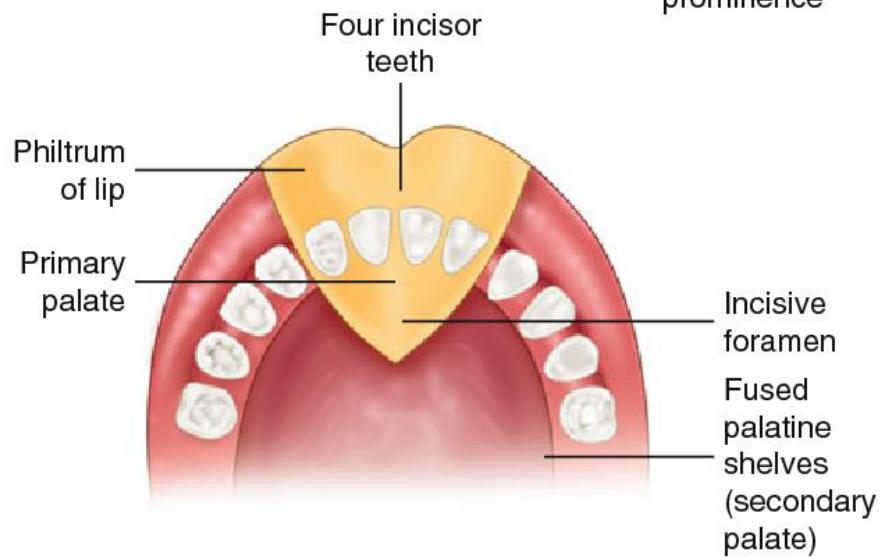
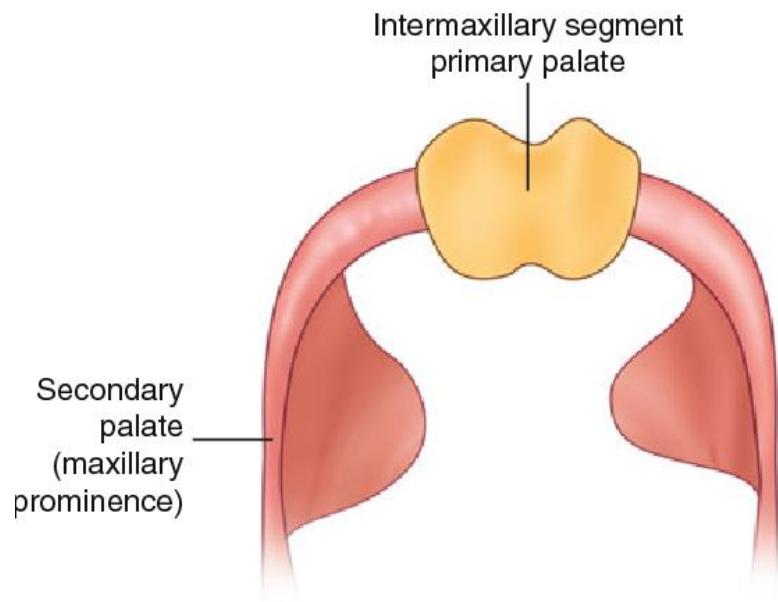
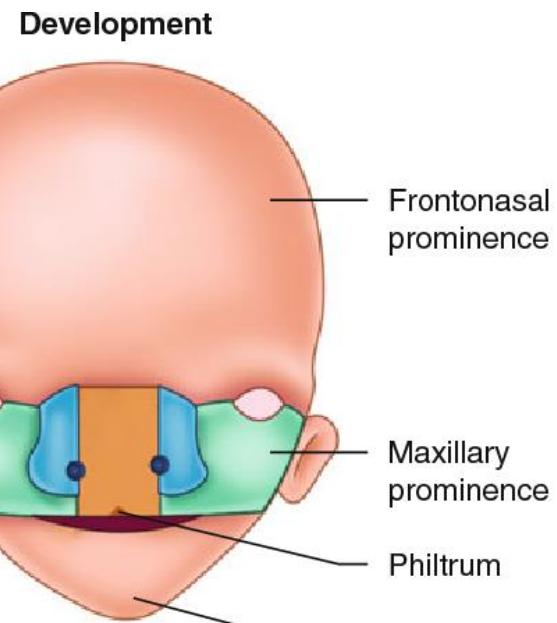
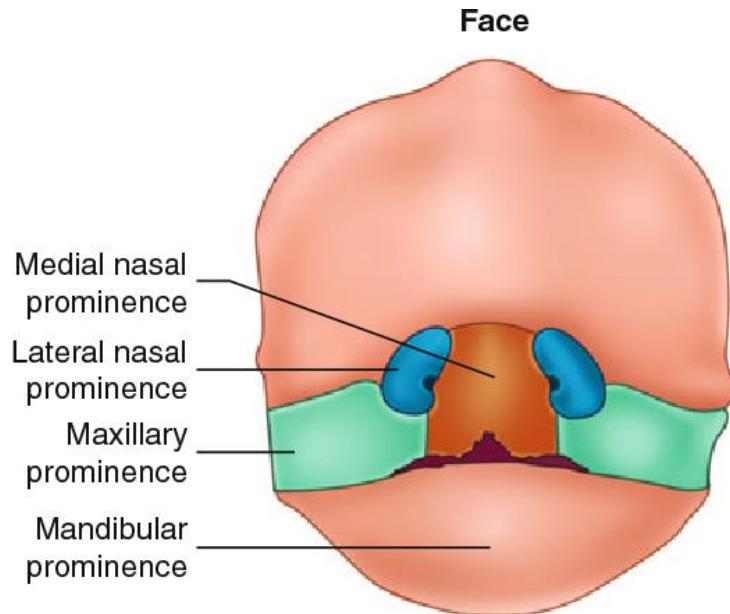
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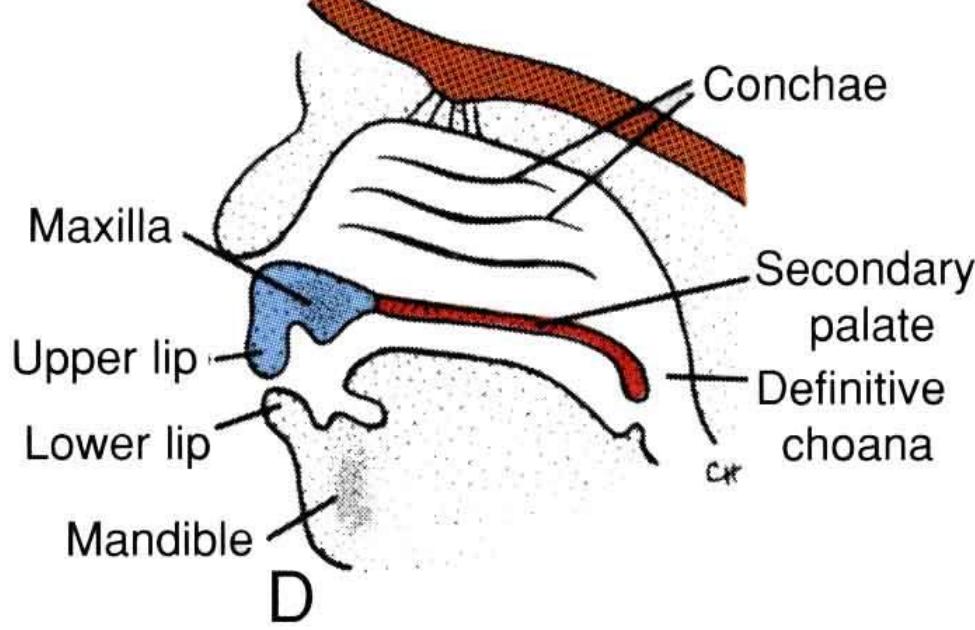
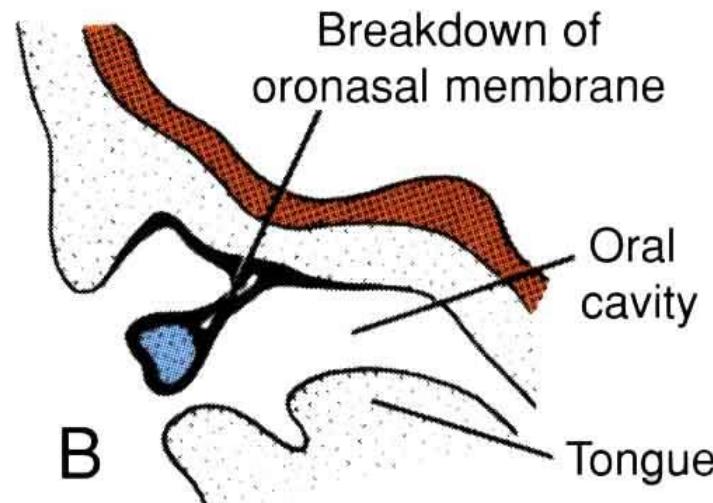
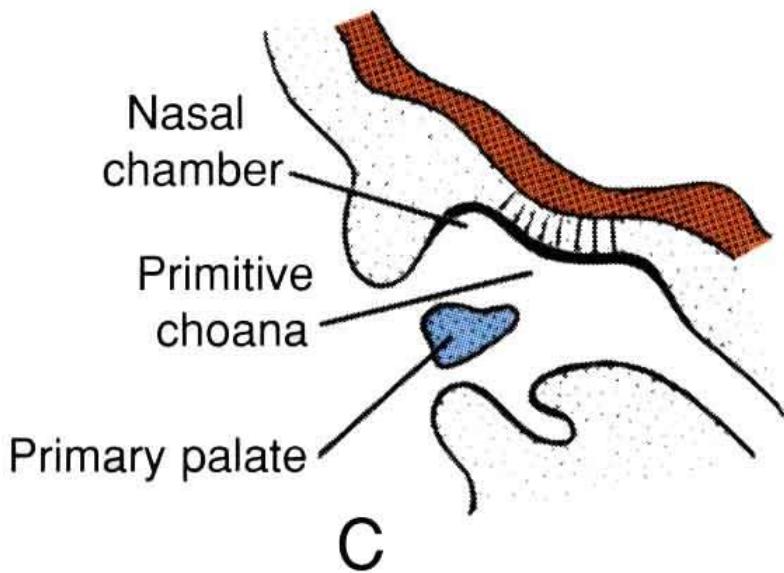
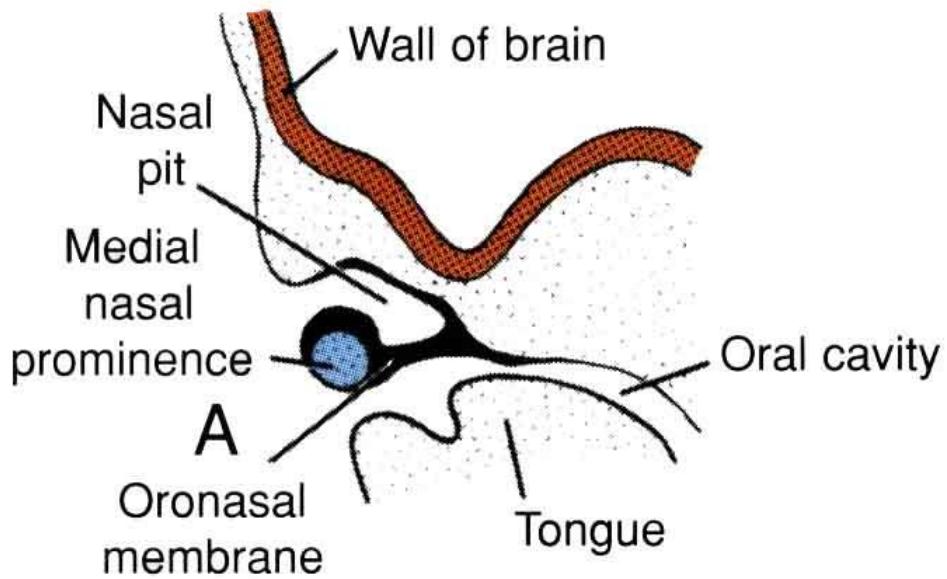
C

intermaxilární segment

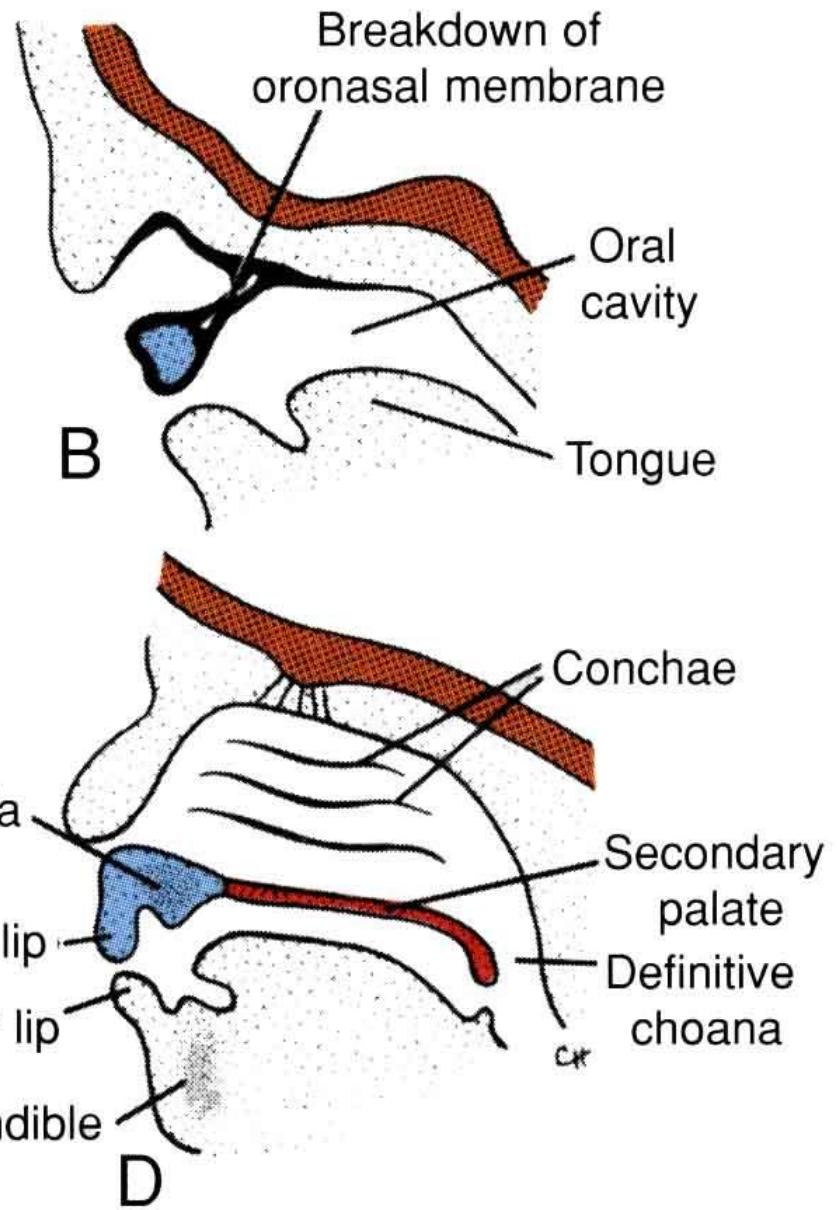
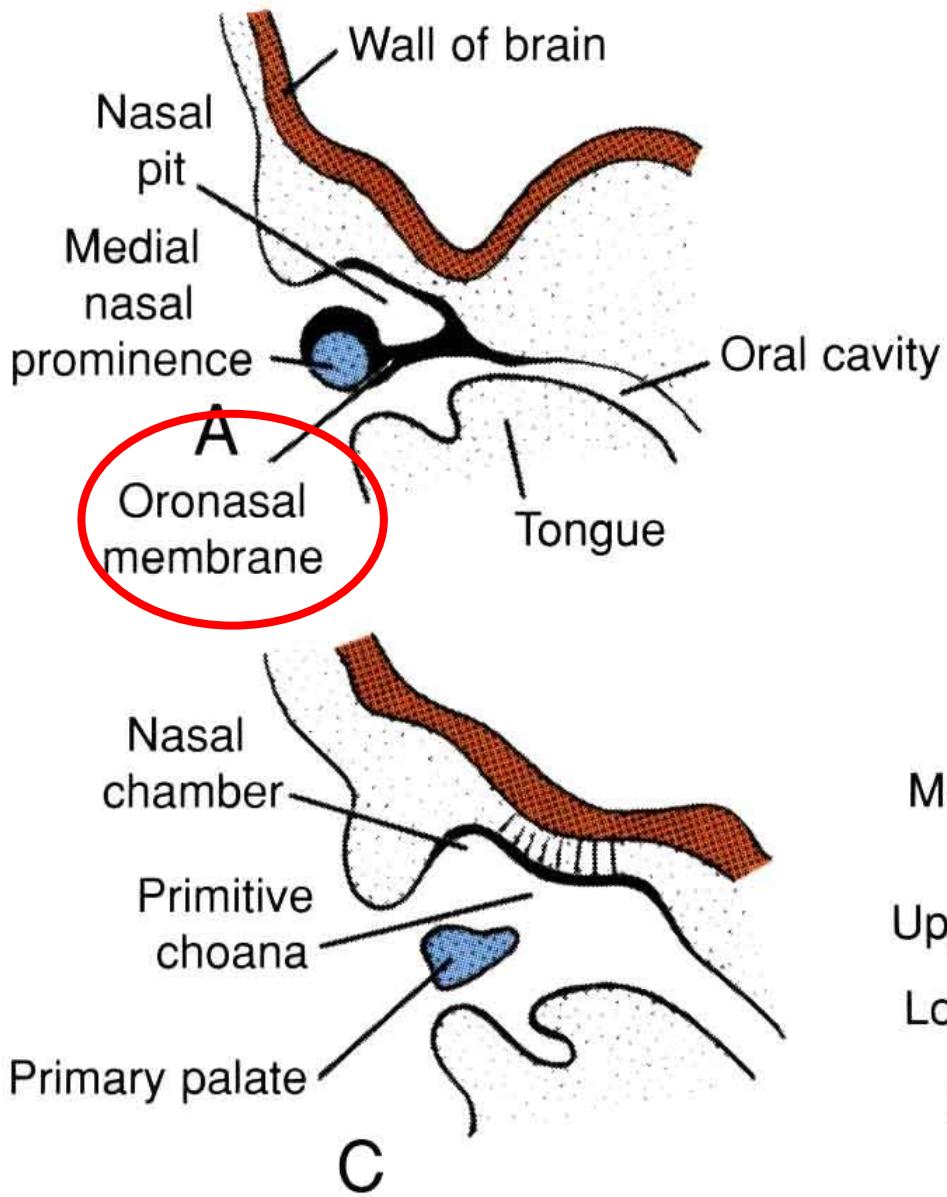




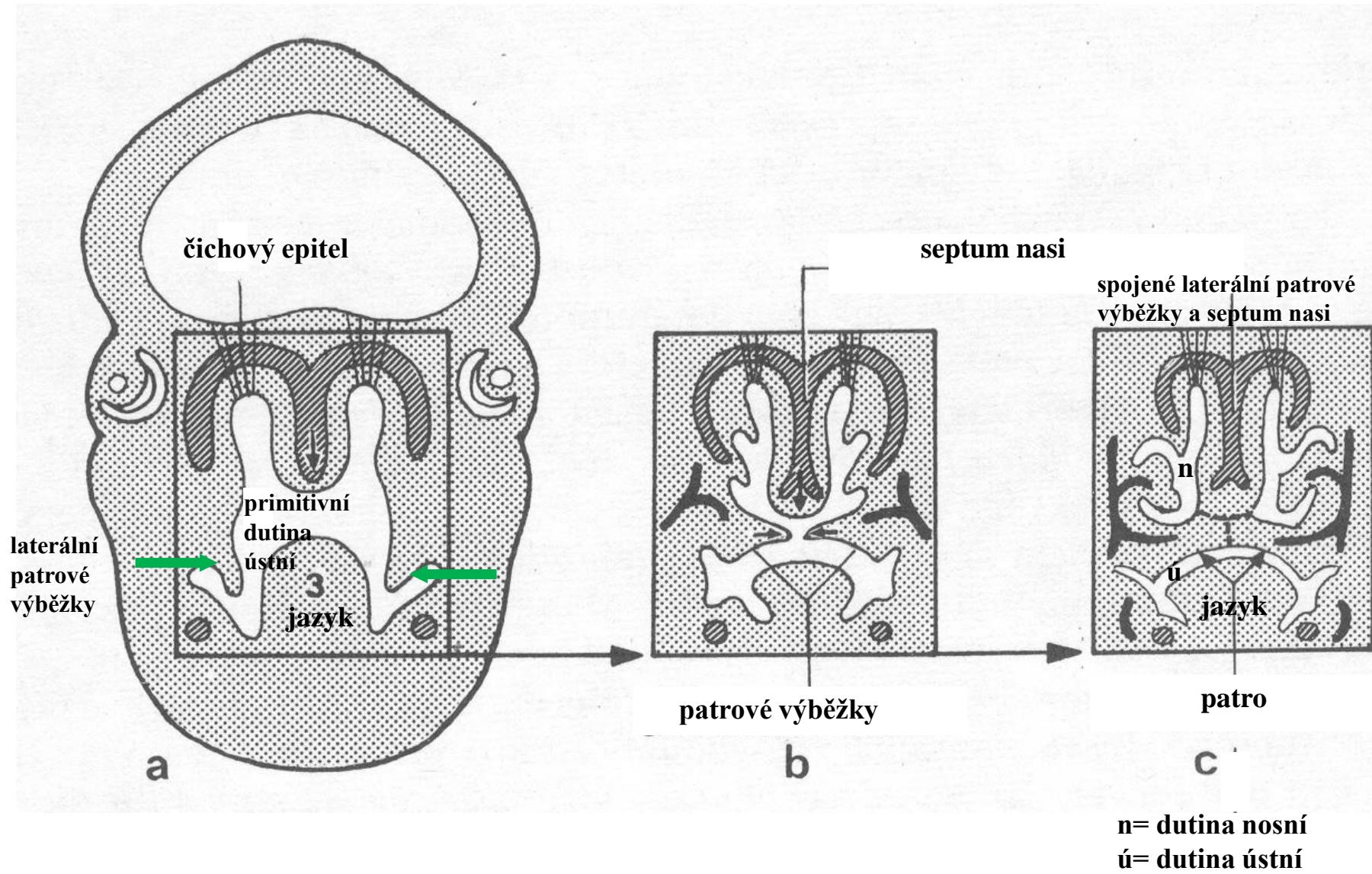
Vývoj nosní dutiny

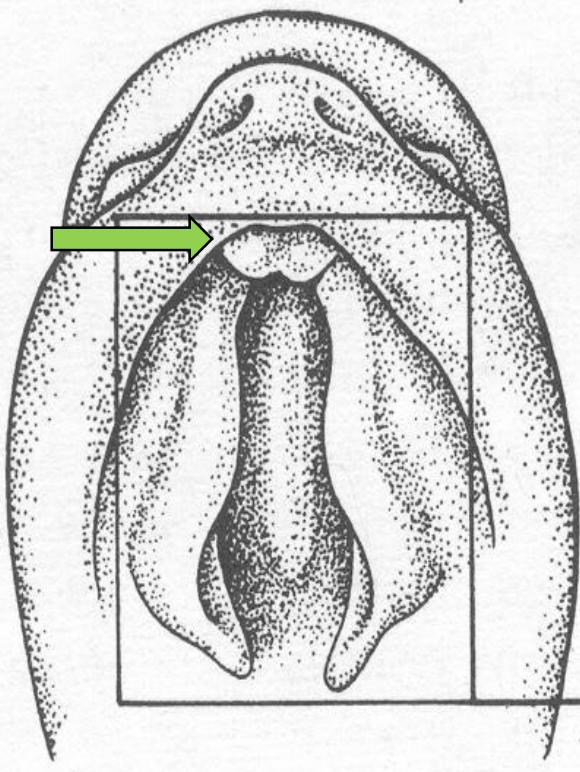


Vývoj nosní dutiny

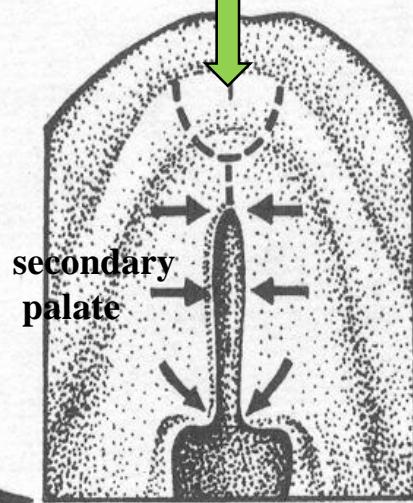


vývoj patrových výběžků, patra, vývoj dutiny nosní, dutiny ústní

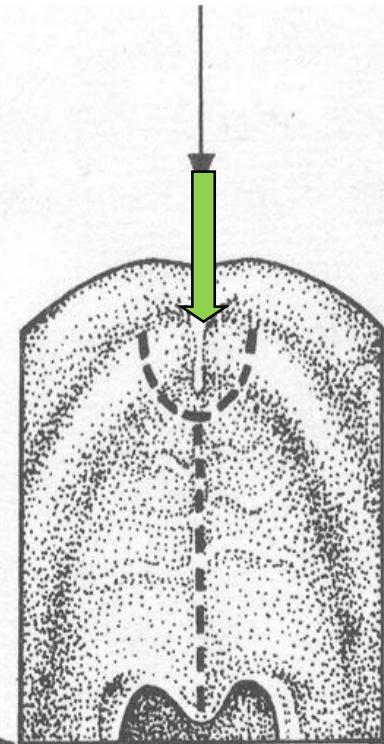


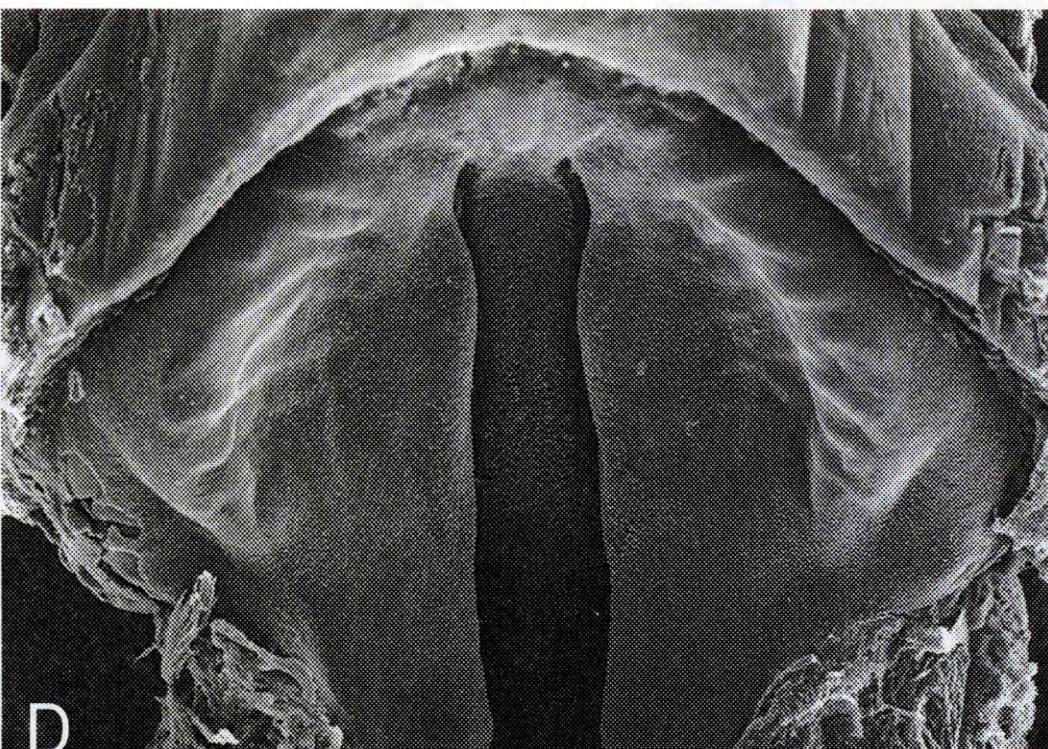
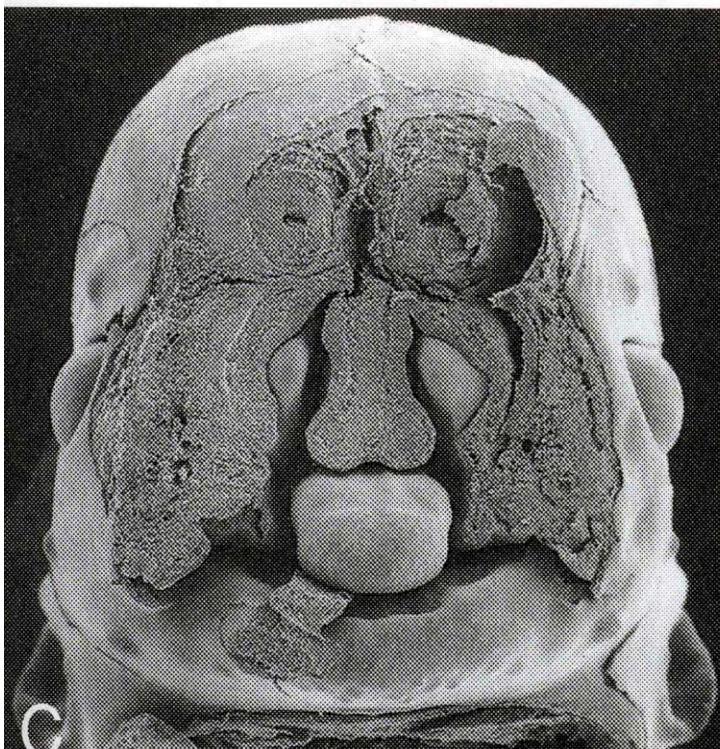
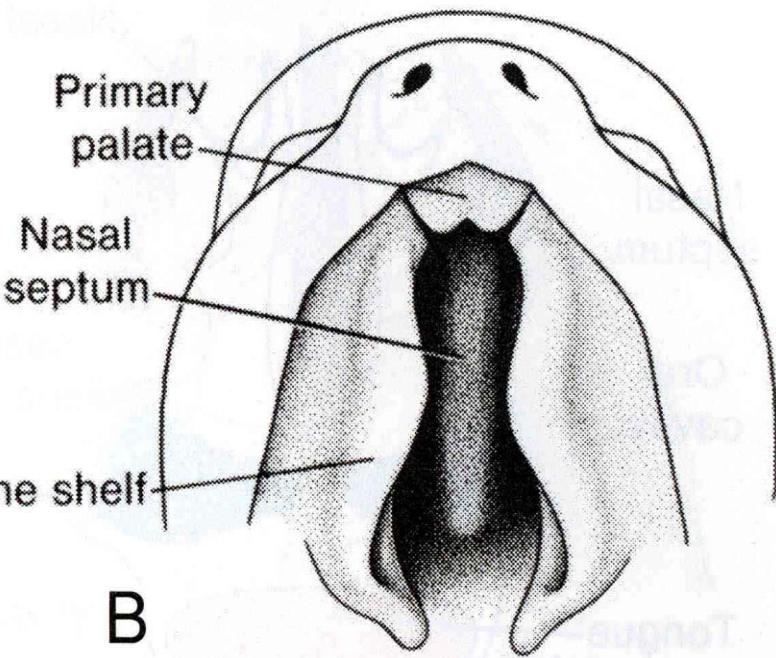
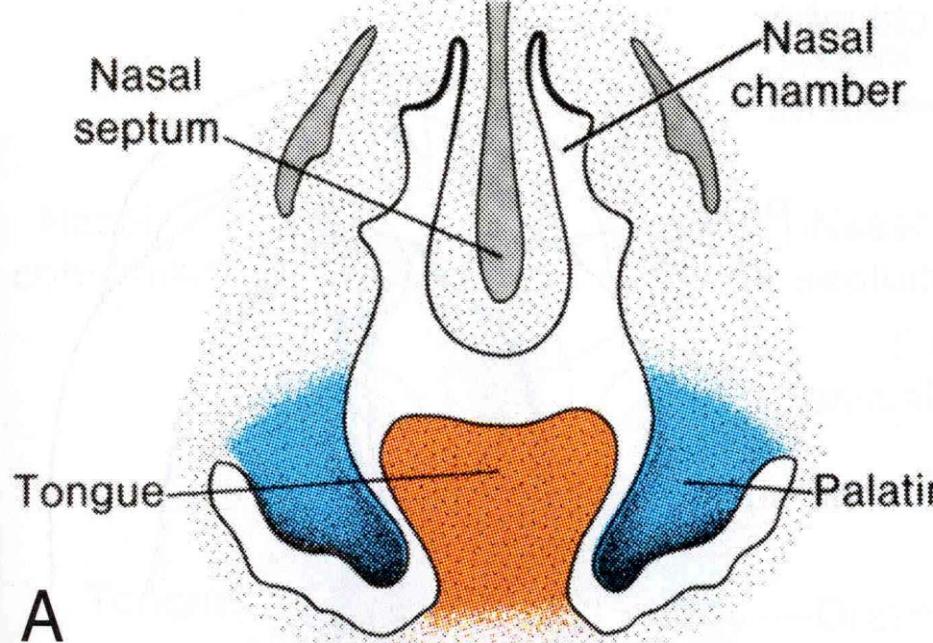


primary palate

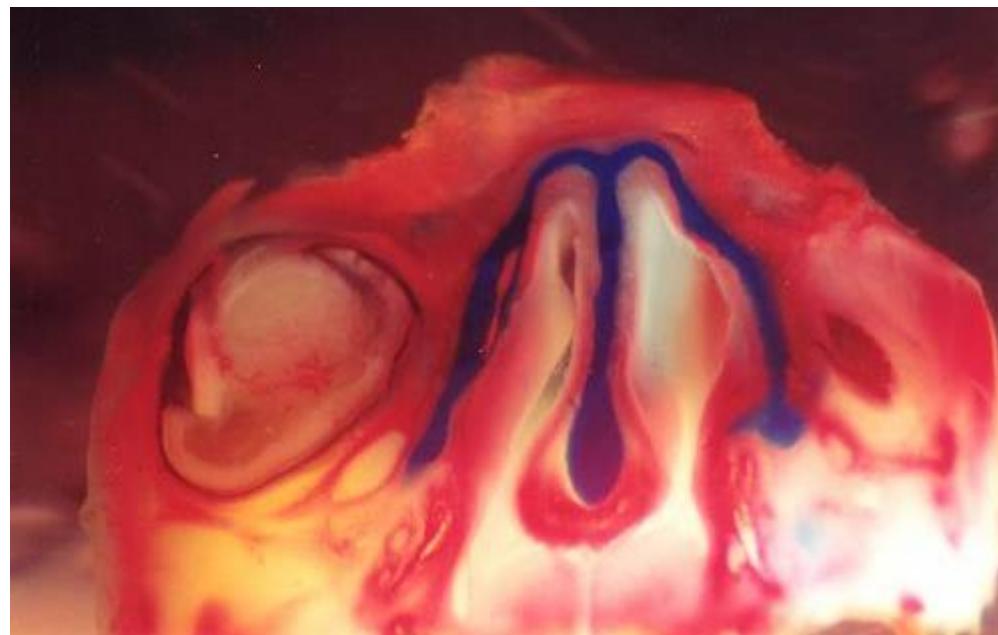


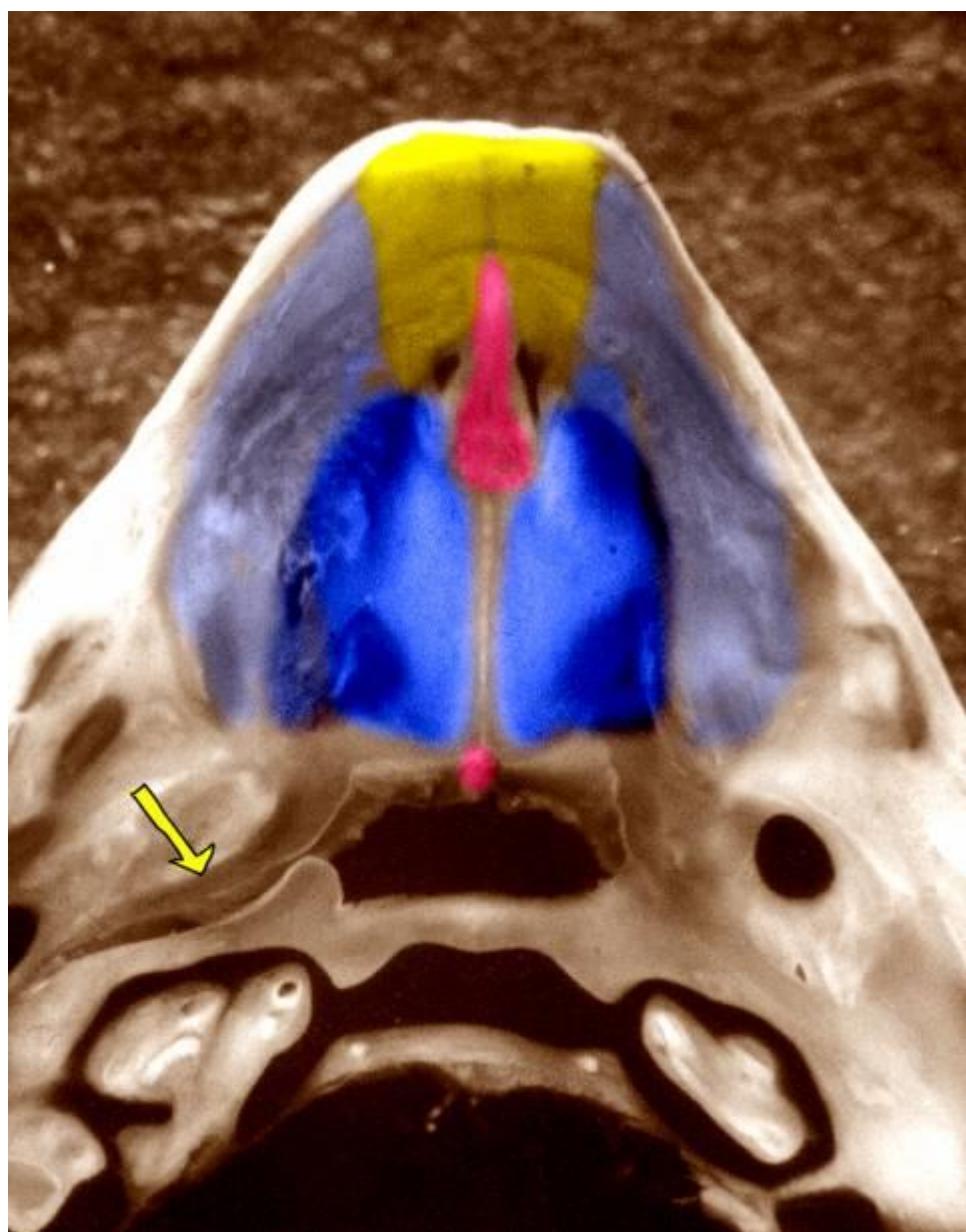
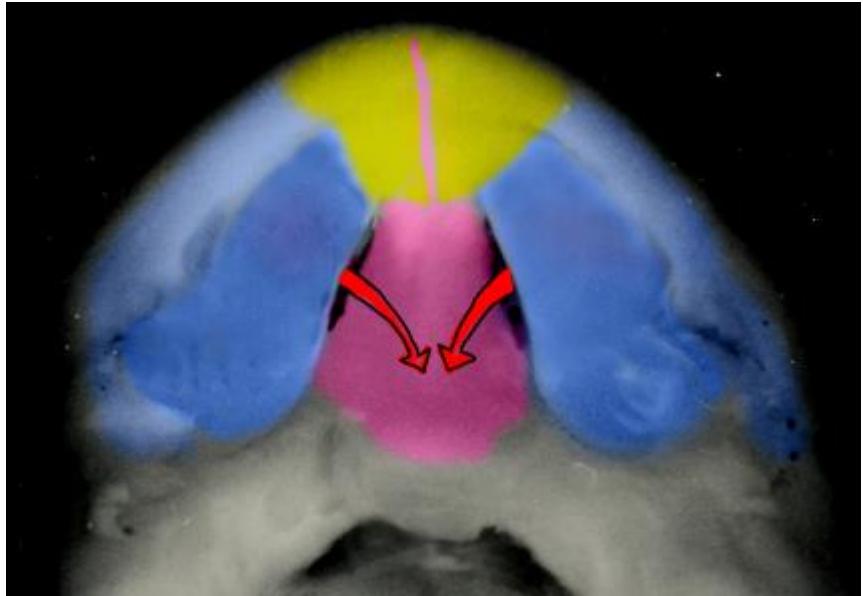
e





uzavírání sekundárního patra



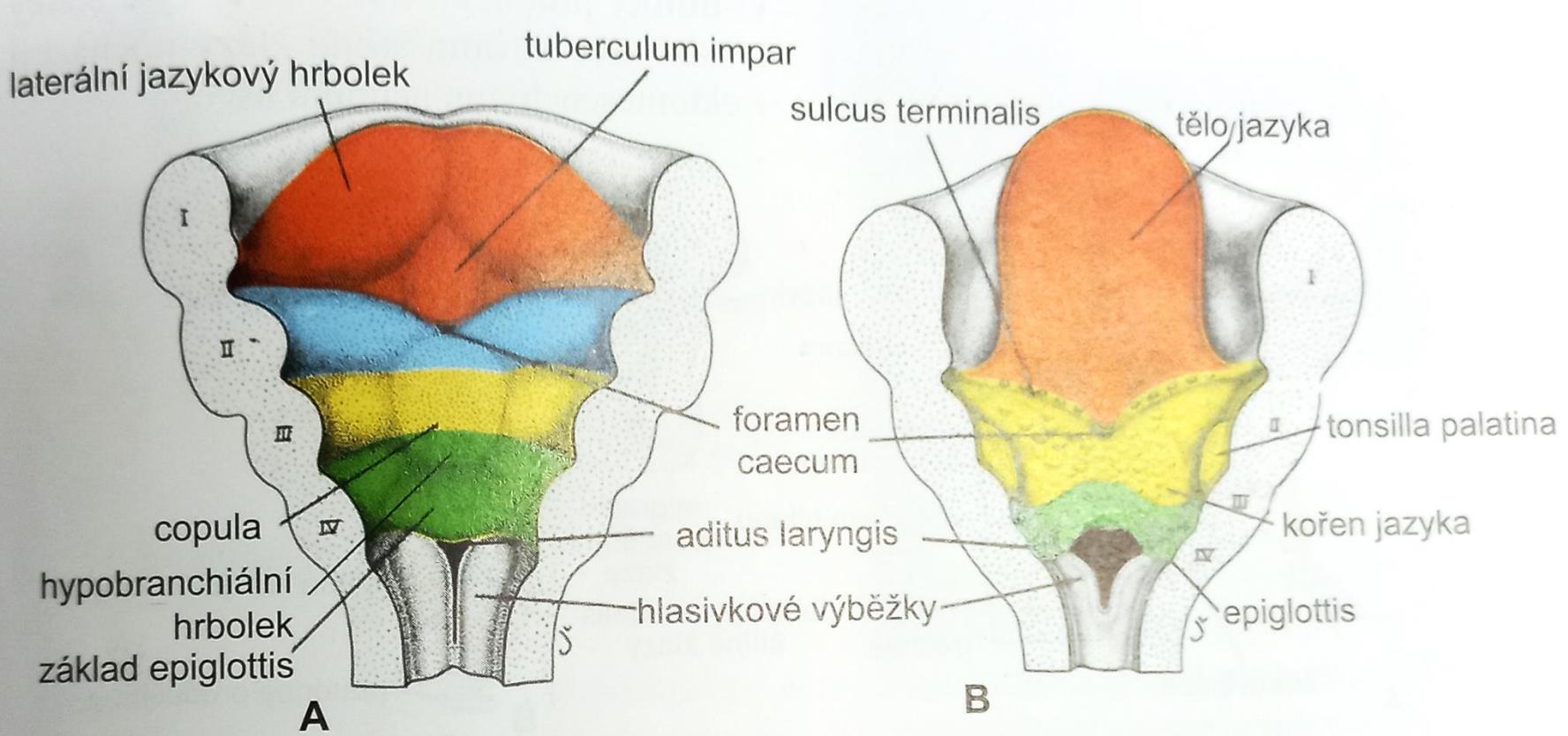




4. Leonardo DiCaprio

Leonardo DiCaprio, a celebrated figure in American cinema and a dedicated environmental advocate, has amassed a plethora of accolades throughout his illustrious career, including an esteemed Academy Award. Notably, DiCaprio is recognized as one of the prominent actors who underwent corrective surgery for a **cleft lip** during infancy, a detail that often remains obscured amidst his professional achievements and philanthropic endeavors.





Vývoj jazyka

Foramen cecum

Will form anterior
two thirds of tongue

Foramen cecum

Terminal
sulcus

(Lateral lingual swelling)

Distal tongue bud

(Tuberculum impar)

Median

tongue

bud

Copula

1

2

3

4

A

Hypopharyngeal
eminence (hypobranchial) 4 weeks

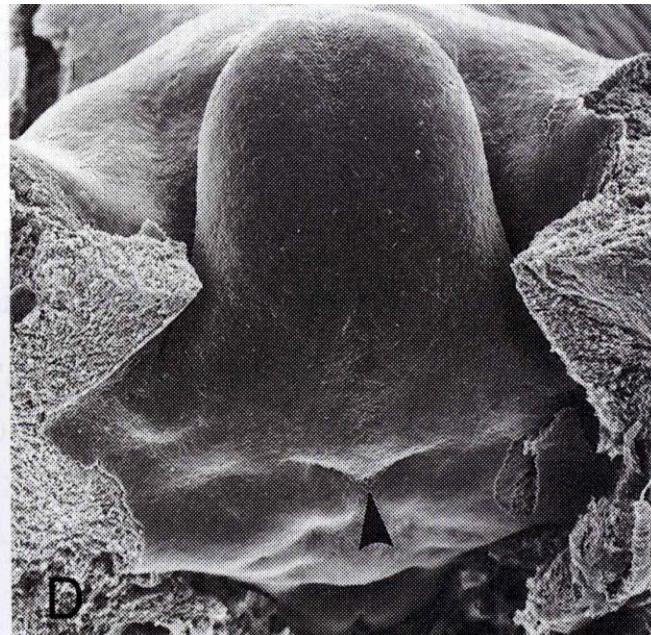
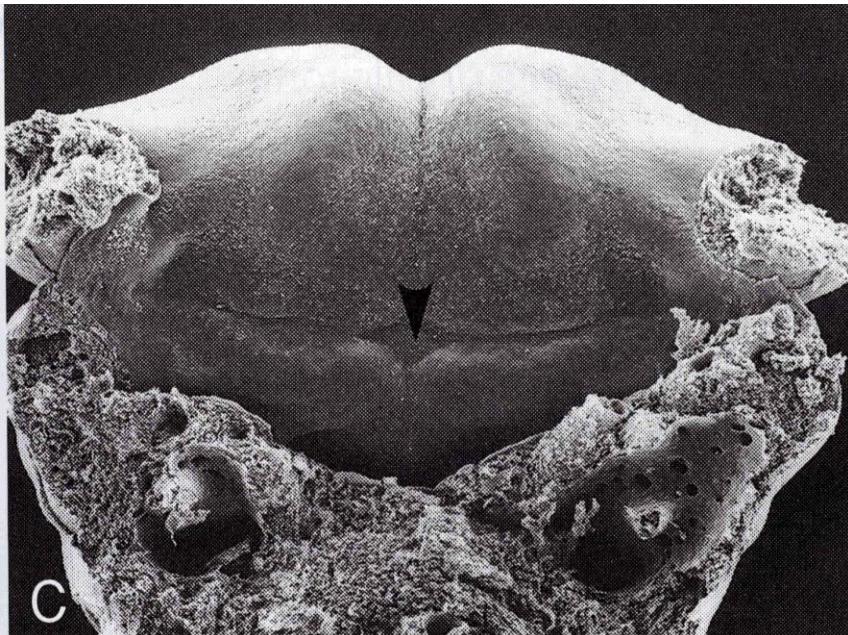
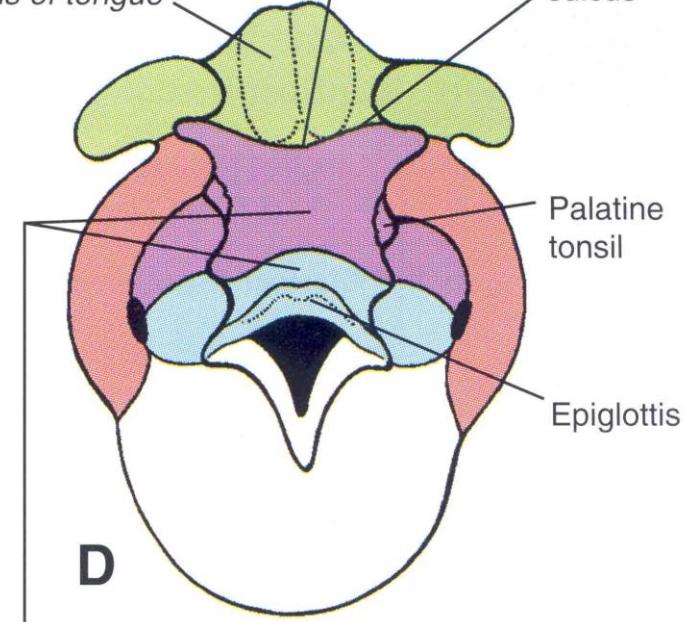
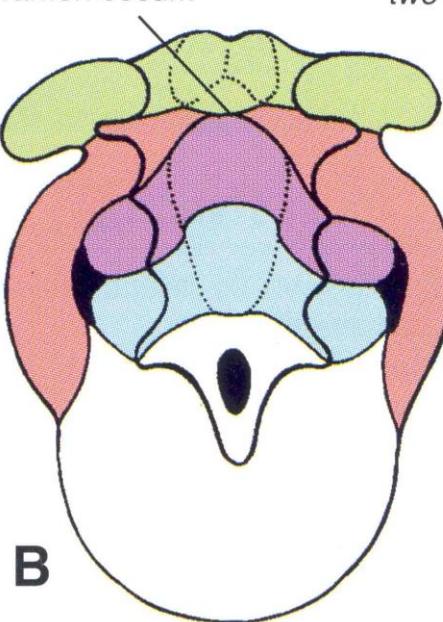
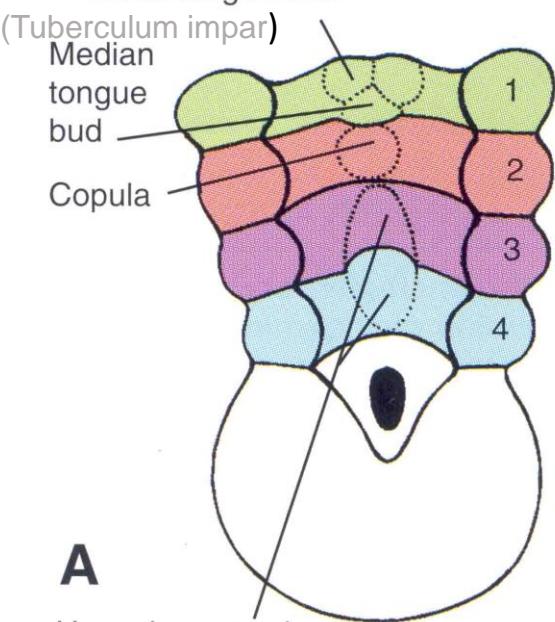
B

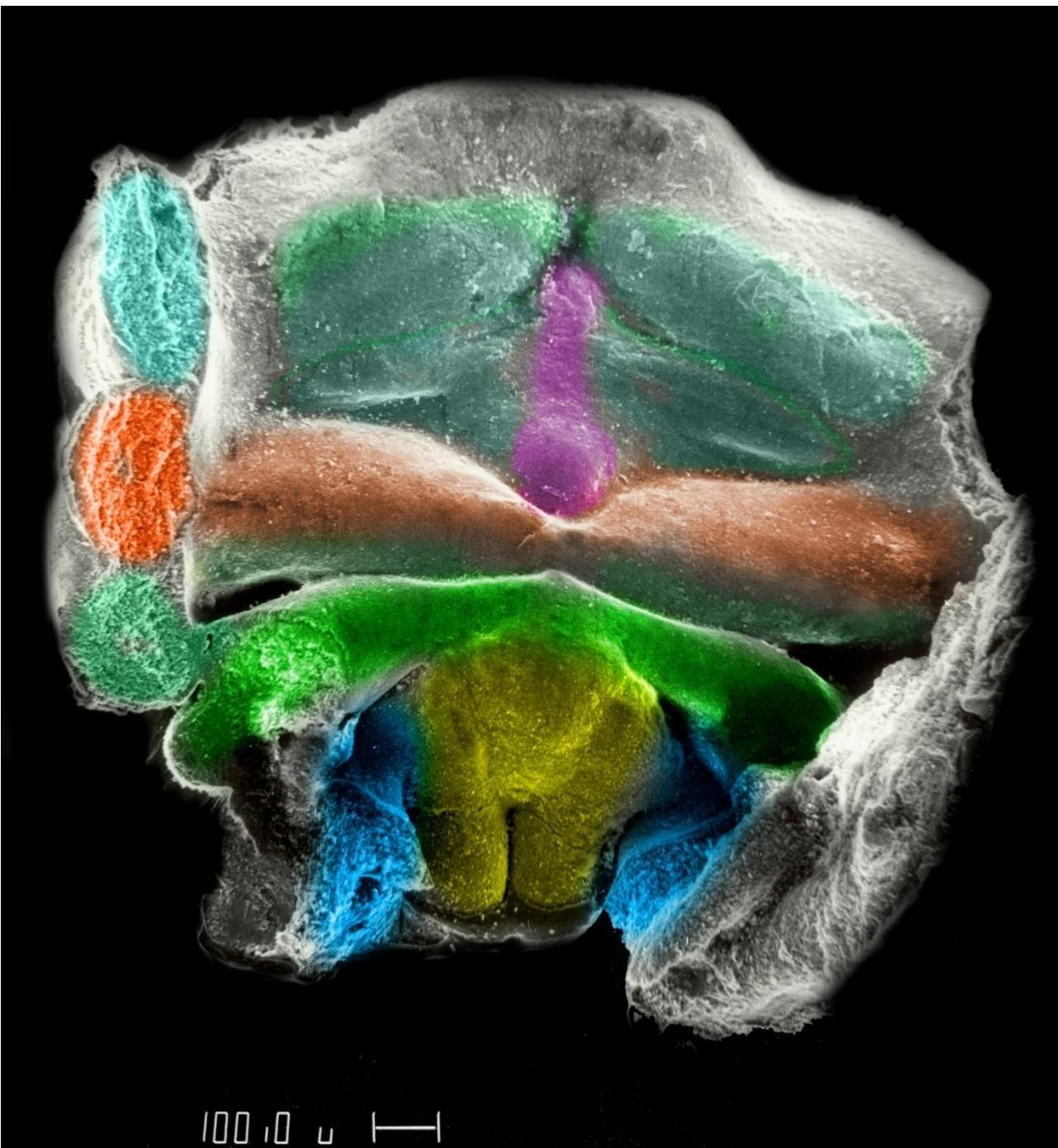
5 weeks

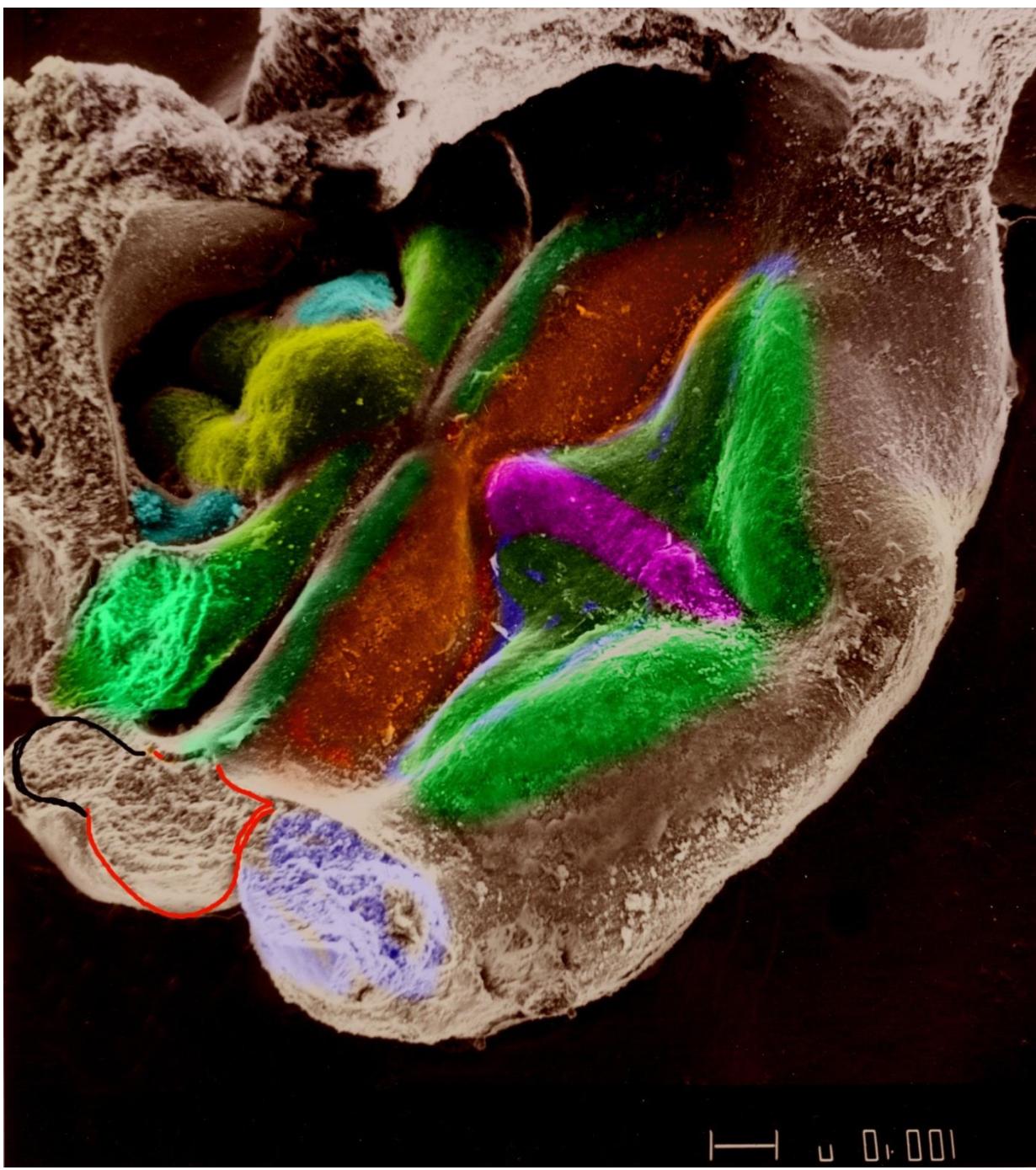
D

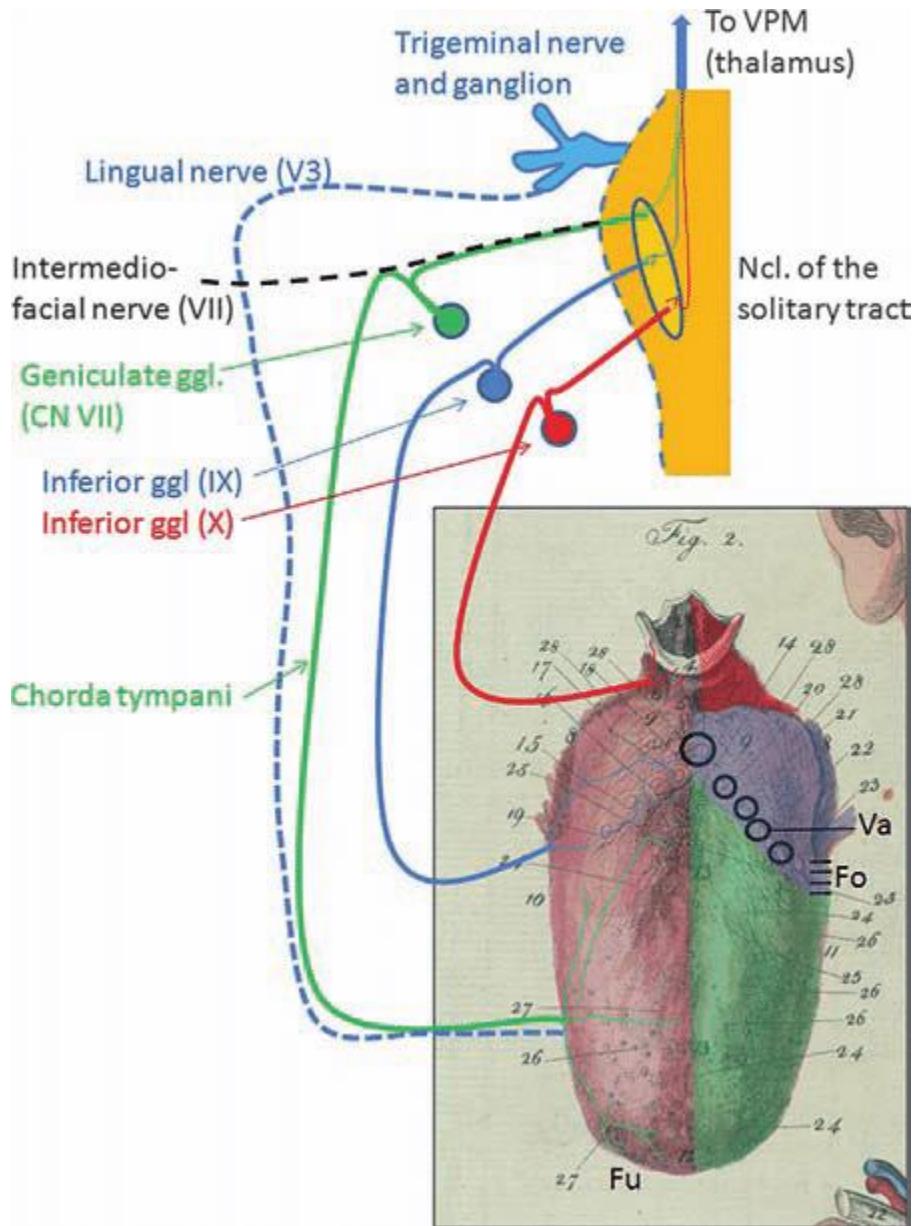
Will form posterior
one third of tongue

6 weeks

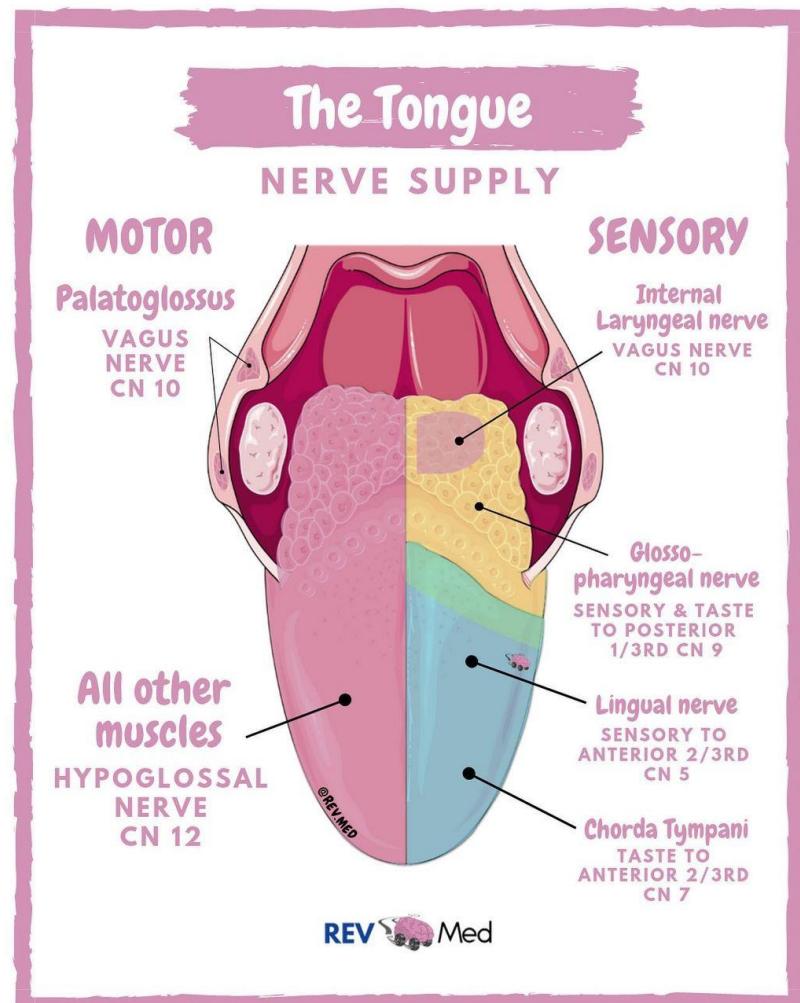




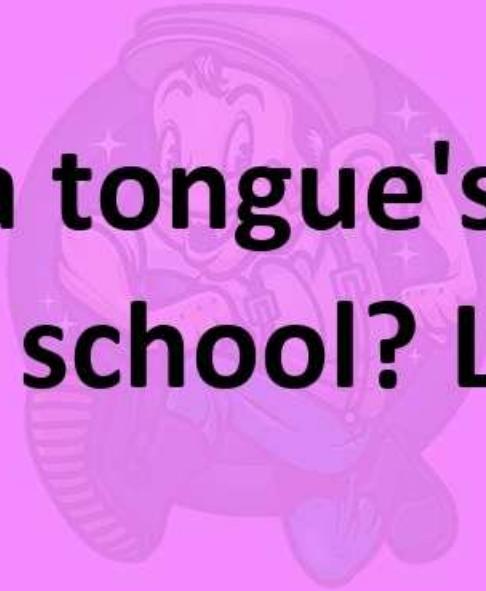




https://www.researchgate.net/figure/Schematic-representation-of-the-gustatory-innervation-of-the-tongue-and-epiglottis_fig5_336496131



<https://www.grepmed.com/images/13965/tongue-supply-anatomy-innervation-nerve>



What's a tongue's favorite subject in school? Linguistics.

Pun it, Share it !

Tongue Puns



OGPuns.com

