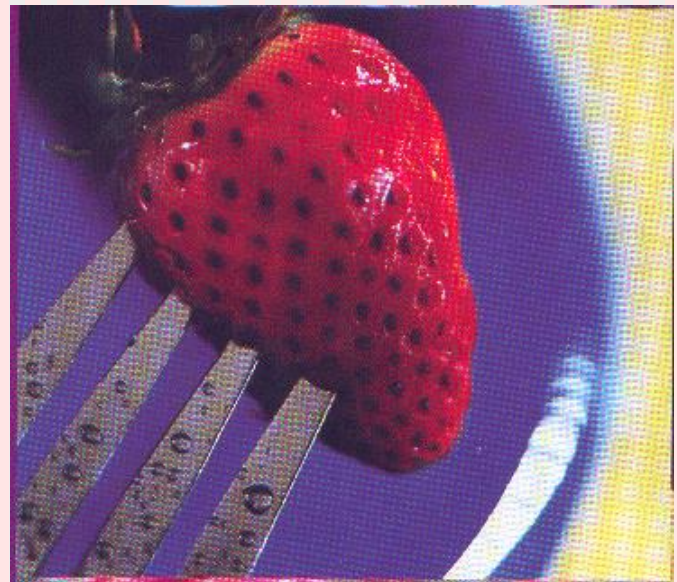


Fisiologia dos Receptores Gustativos



Estímulo Químico



Células
gustativas



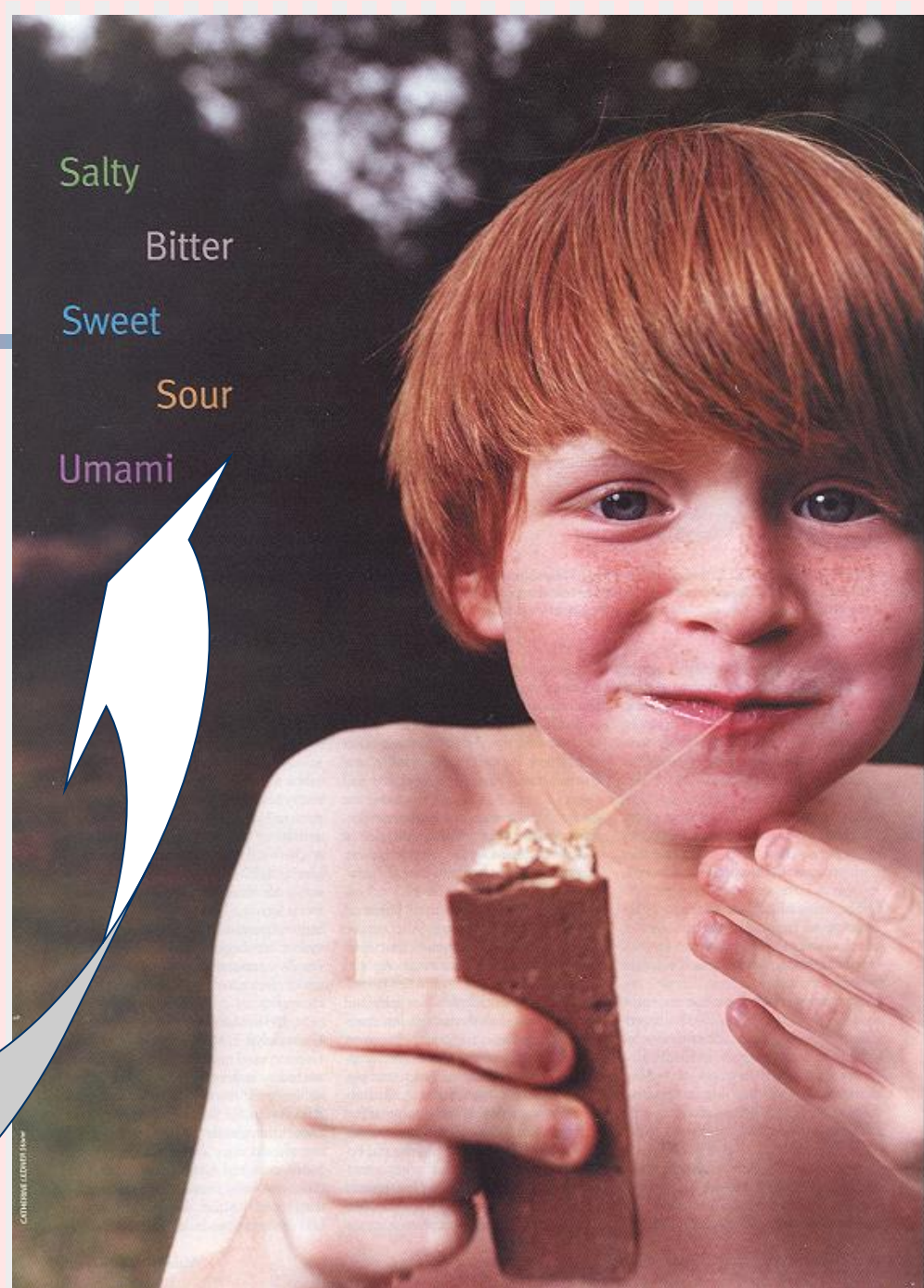
Aferências
sensoriais



Cérebro



**Percepção
do gosto**



Localização dos Receptores

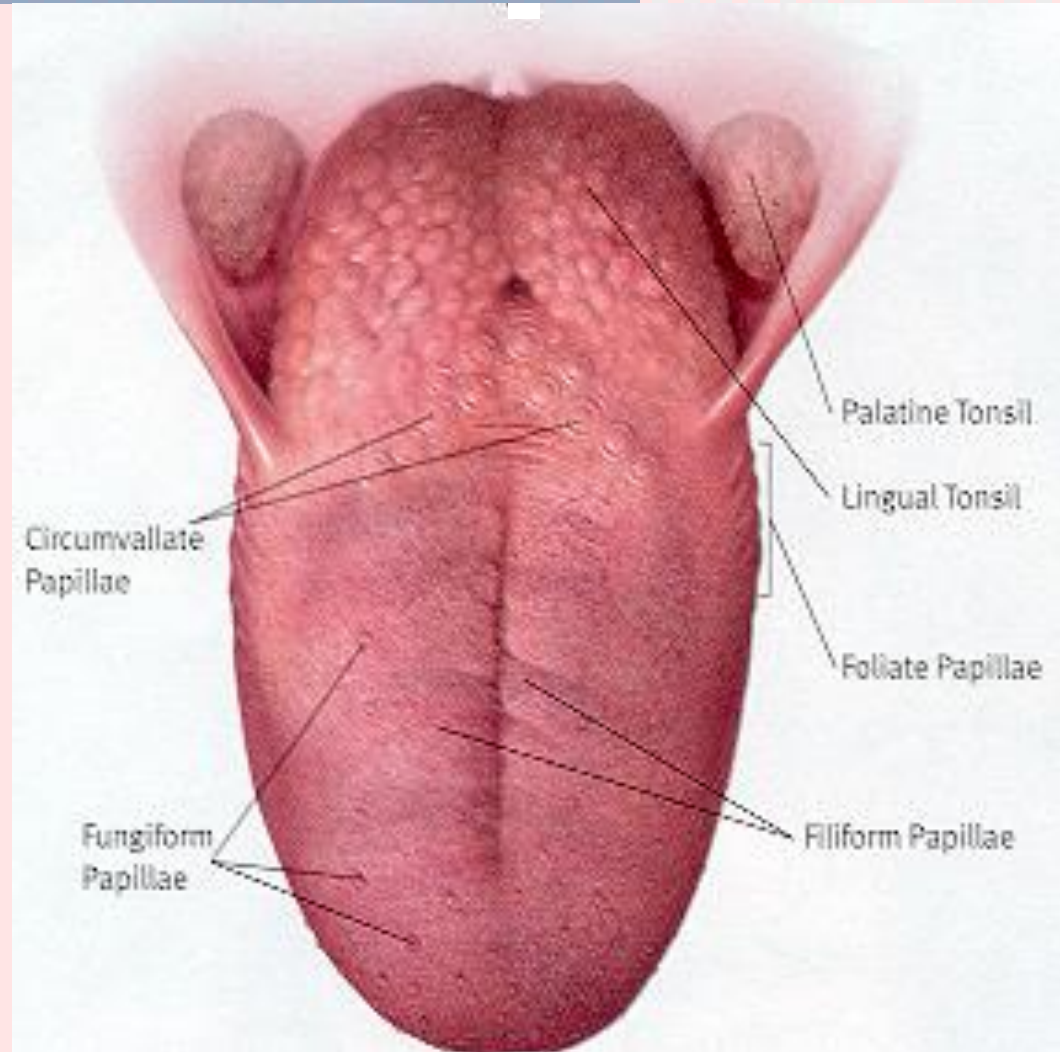
Língua

Palato mole

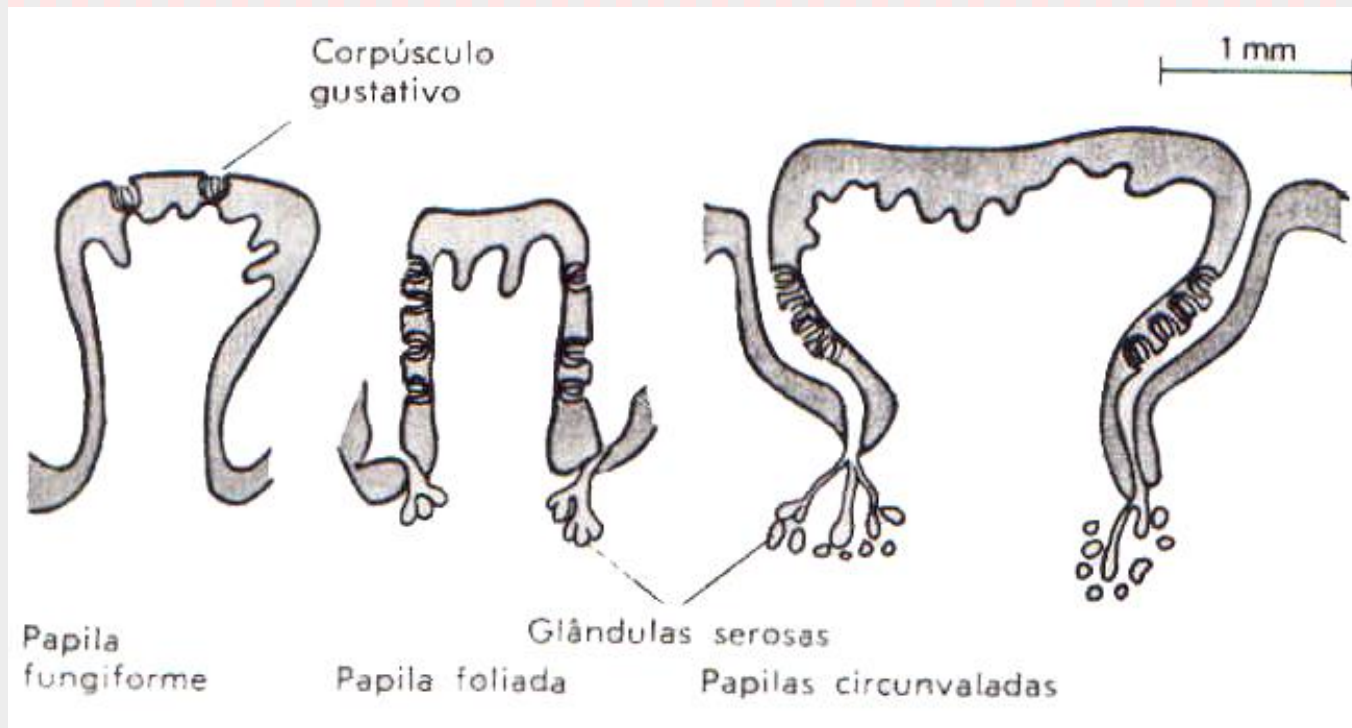
Faringe

Laringe

Esôfago

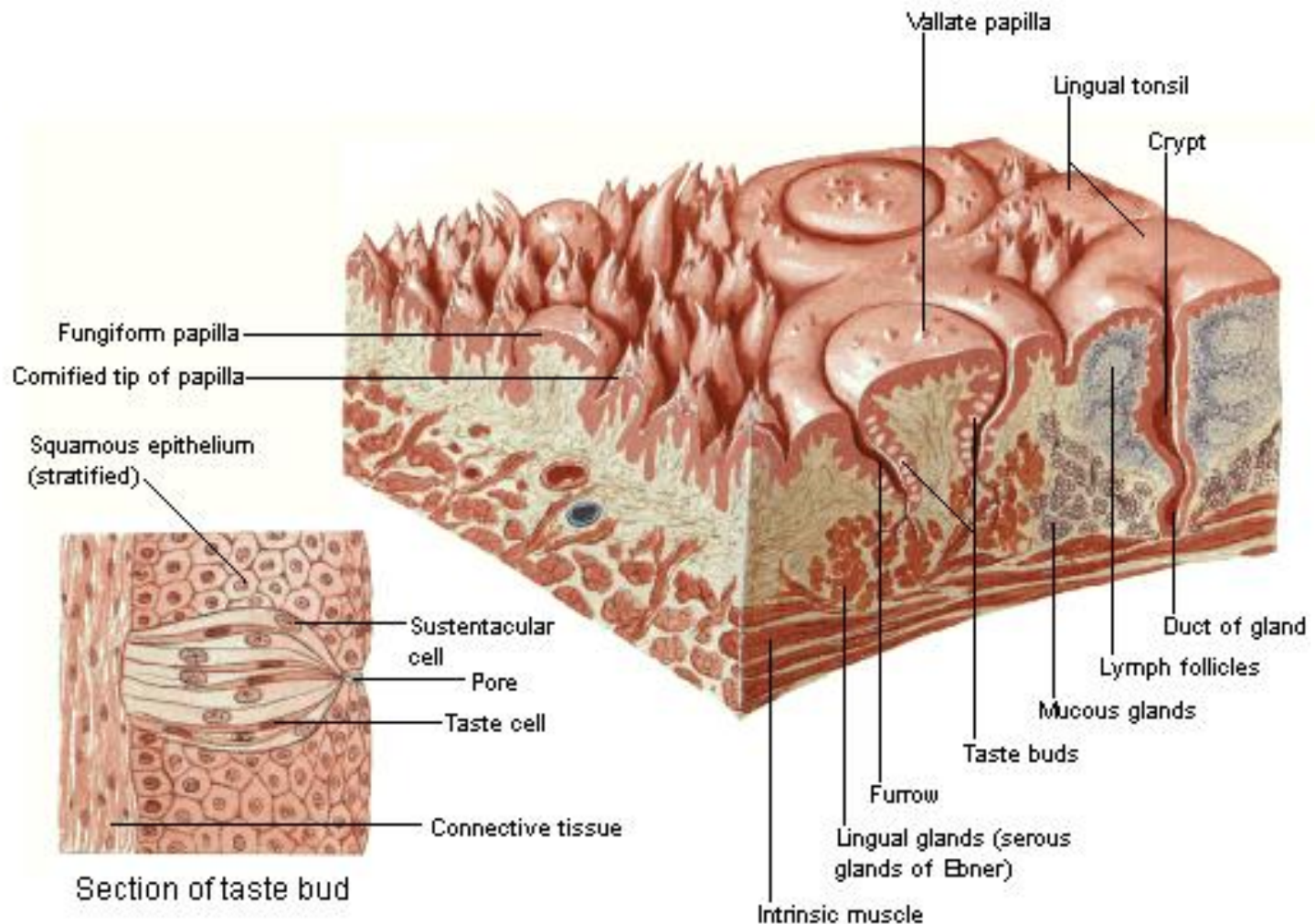


Papilas Gustativas: **filiforme,** fungiforme, circunvalada e foliada

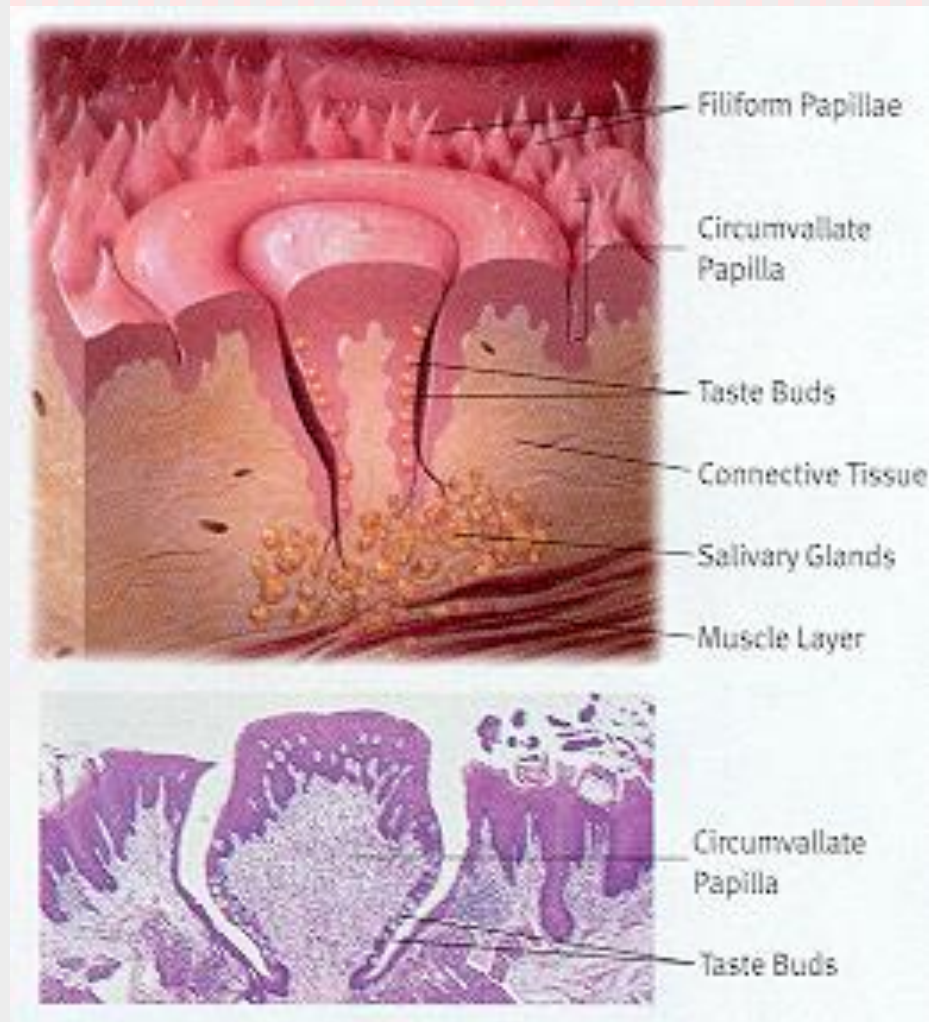


Sem corpúsculos gustativos

Papilas Gustativas



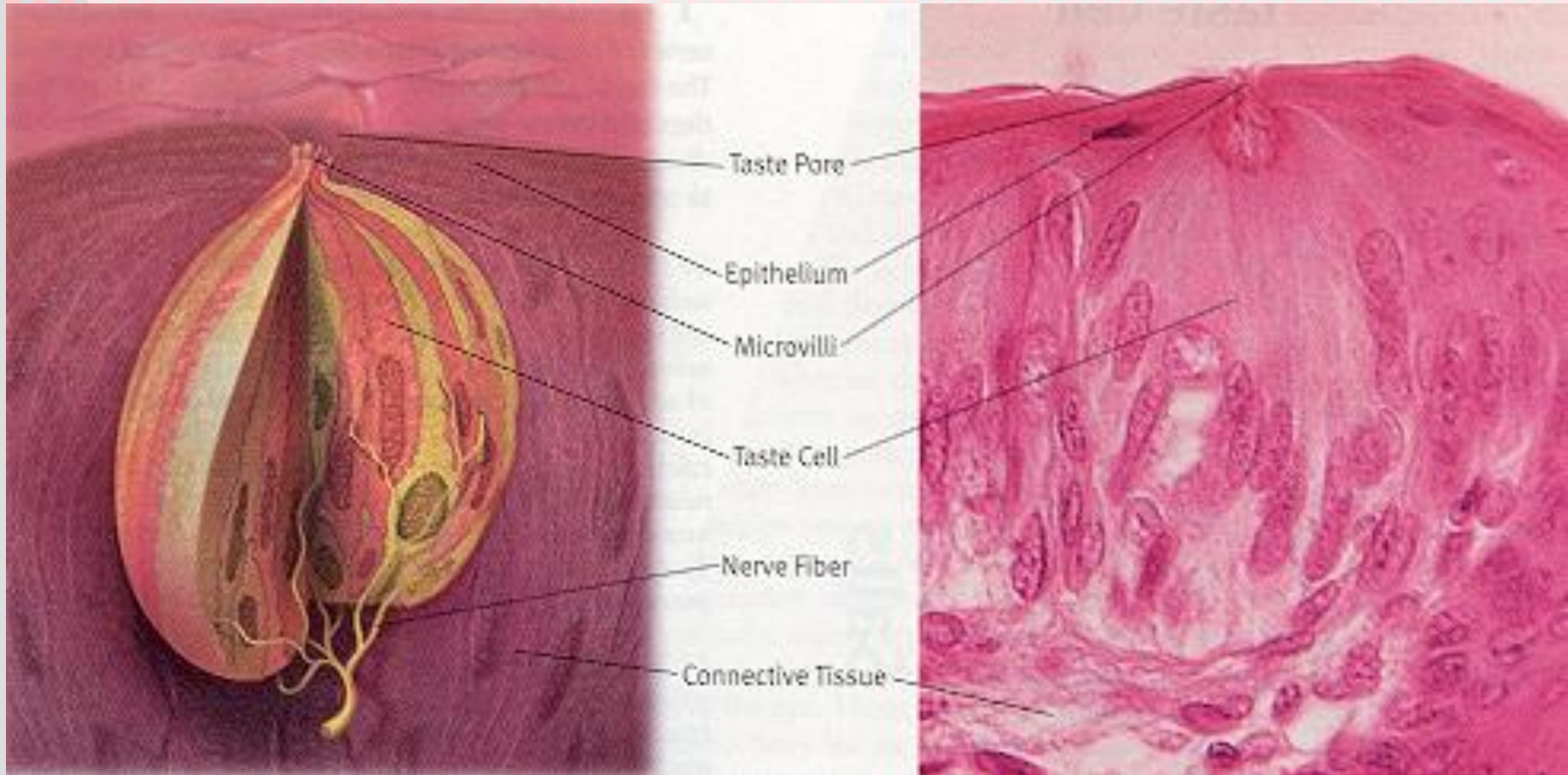
Papila Circunvalada



Cerca de 7 a 12
no ser humano

Contém cerca da
metade (1000)
dos corpúsculos
gustativos

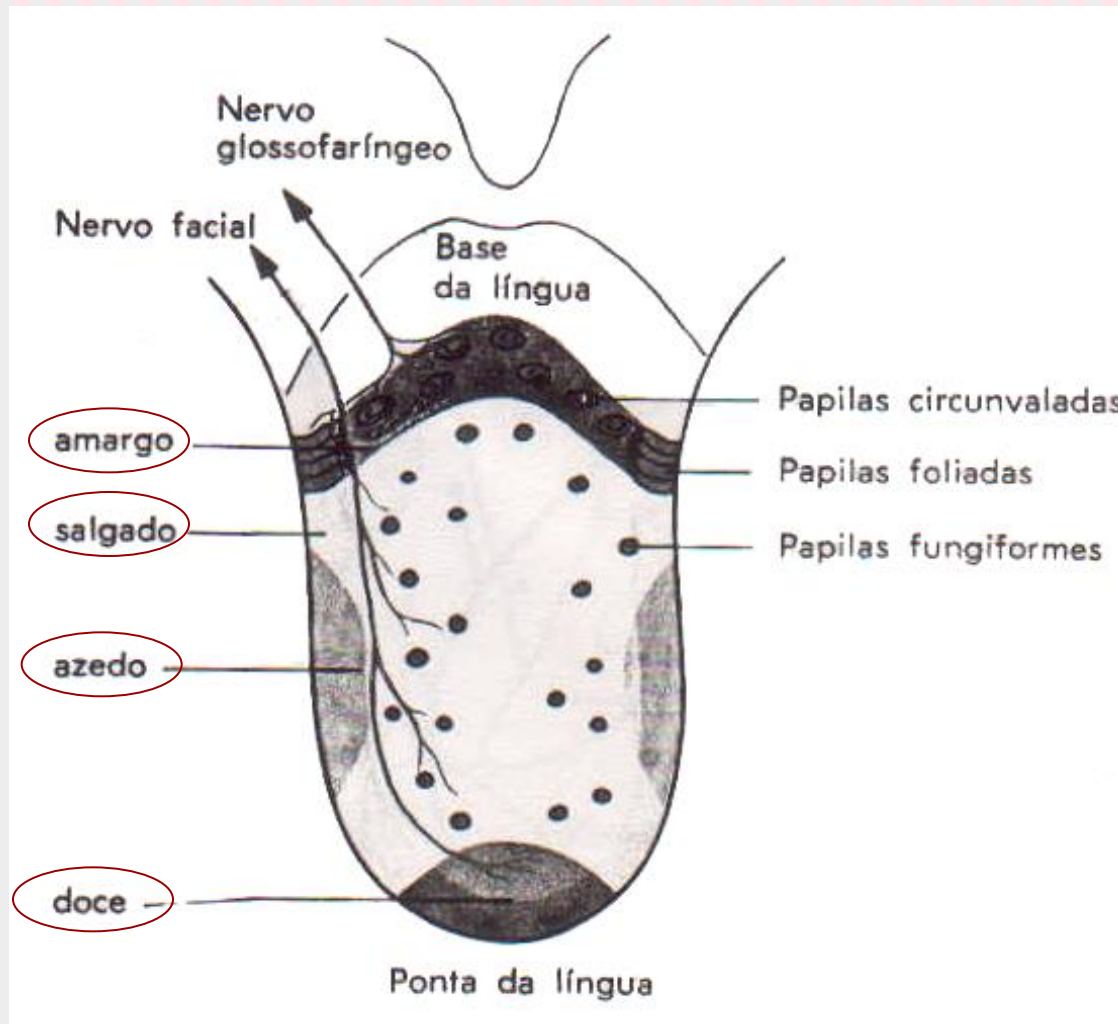
Corpúsculo Gustativo



Nº de corpúsculos gustativos na papila circunvalada no Homem

Idade	Nº médio de botões
0-11 meses	251
1-3 anos	260
4-20 anos	326
30-45 anos	242
40-70 anos	268
74-85 anos	101

Categorias básicas do gosto



The “Taste Map”: All Wrong

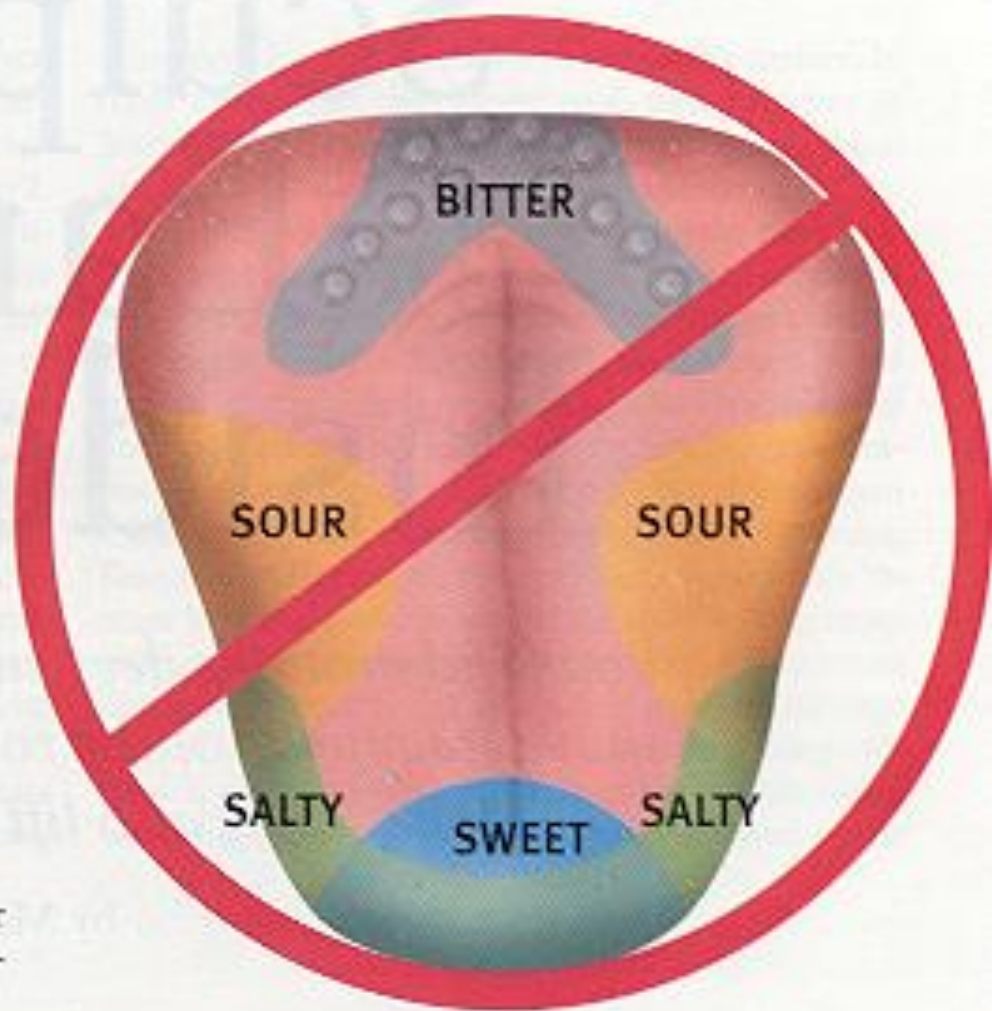
One of the most dubious “facts” about taste—and one that is commonly reproduced in textbooks—is the oft-cited but misleading “tongue map” showing large regional differences in sensitivity across the human tongue. These maps indicate that sweetness is detected by taste buds on the tip of the tongue, sourness on the sides, bitterness at the back and saltiness along the edges.

Taste researchers have known for many years that these tongue maps are wrong. The maps arose early in the 20th century as a result of a misinterpretation of research reported in the late 1800s, and they have been almost impossible to purge from the literature.

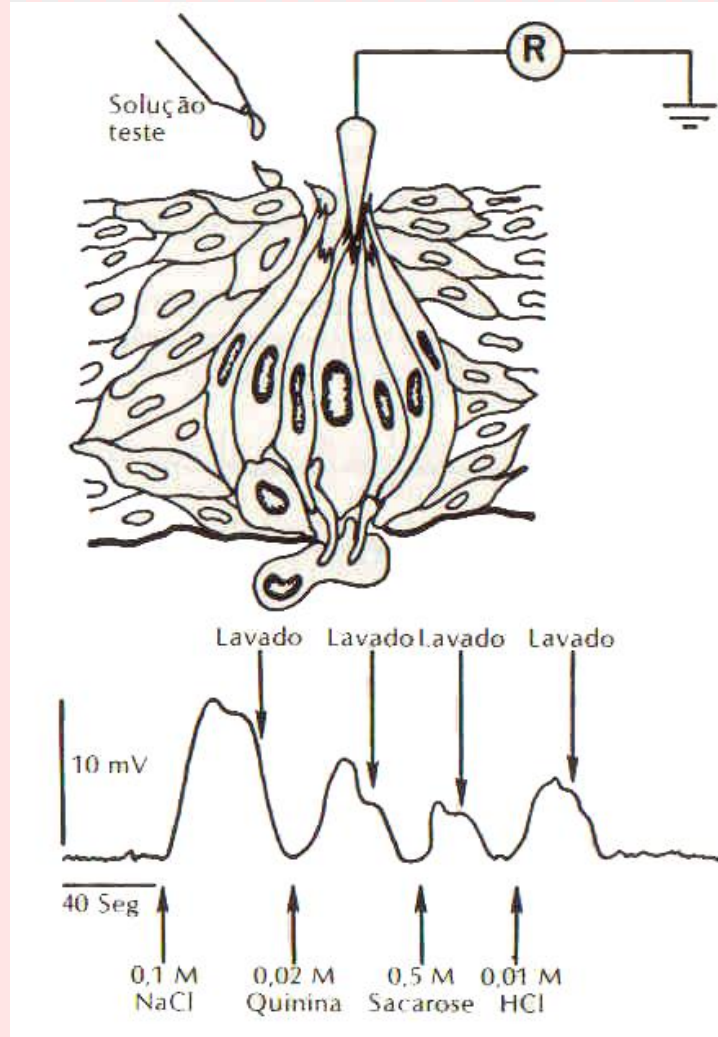
In reality, all qualities of taste can be elicited from all the regions of the tongue that contain taste buds. At present, we have no evidence that any kind of spatial segregation of sensitivities contributes to the neural representation of taste quality, although there are some slight differences in sensitivity across the tongue and palate, especially in rodents.

—D.V.S. and R.F.M.

OUTDATED “TONGUE MAP” has continued to appear in textbooks even though it was based on a misinterpretation of research done in the 19th century.

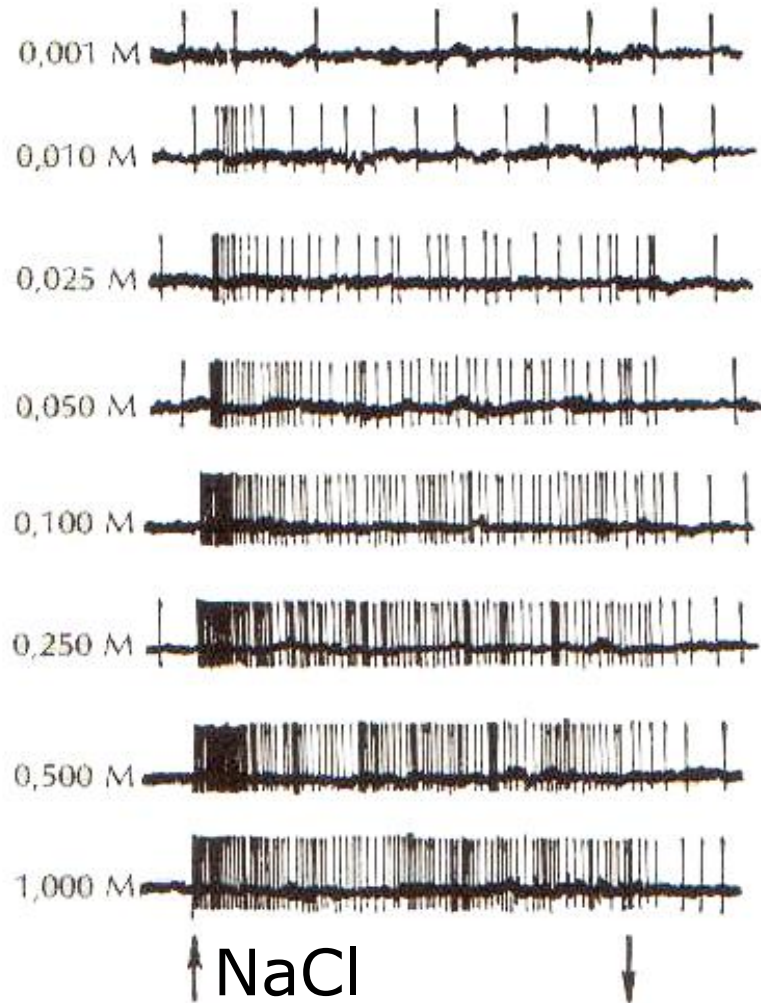


Uma única célula responde a mais de um tipo de substância química



Registro de uma célula sensorial

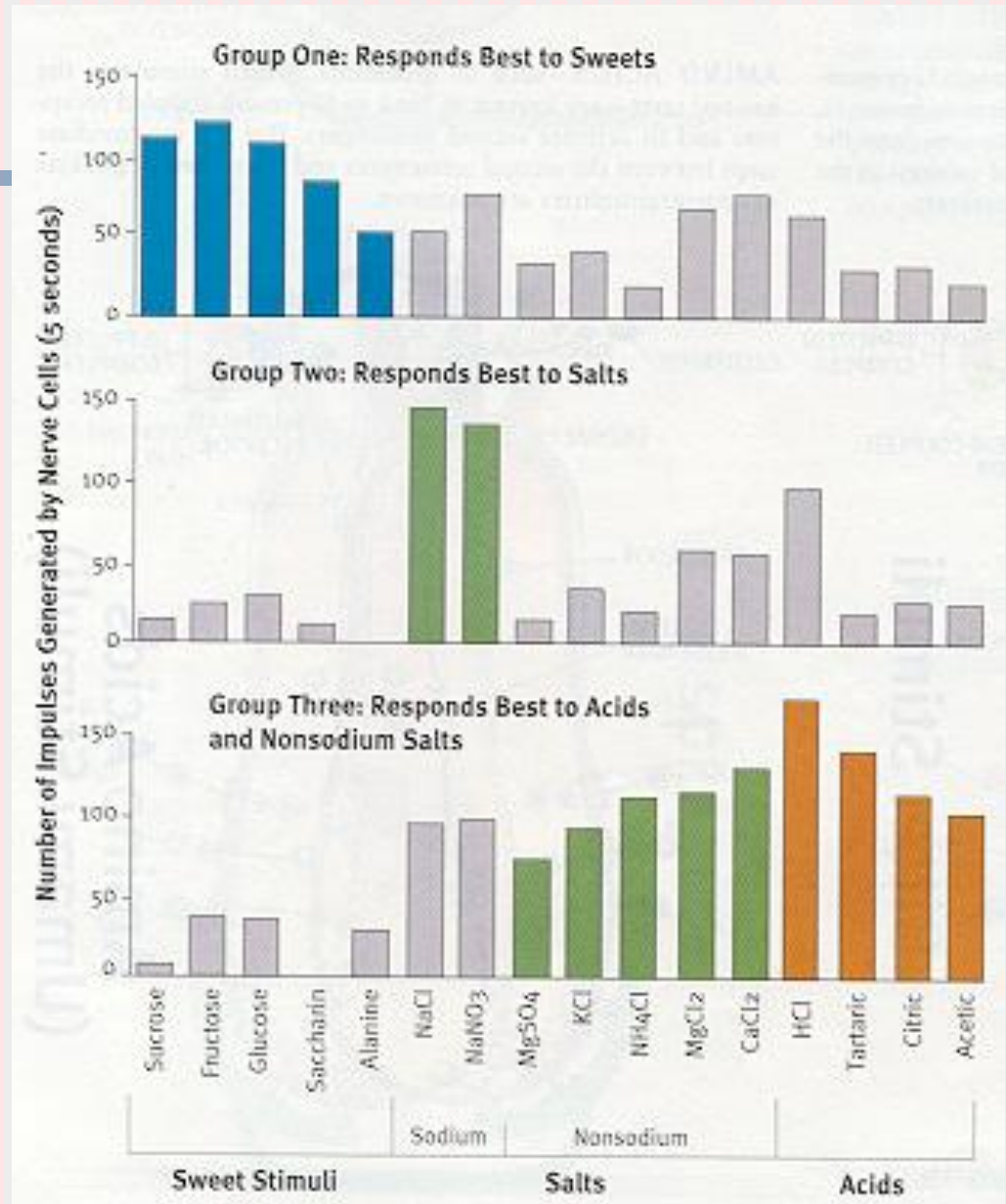
Resposta de adaptação lenta



Registro da atividade do nervo da Corda do tímpano

Perfil gustativo

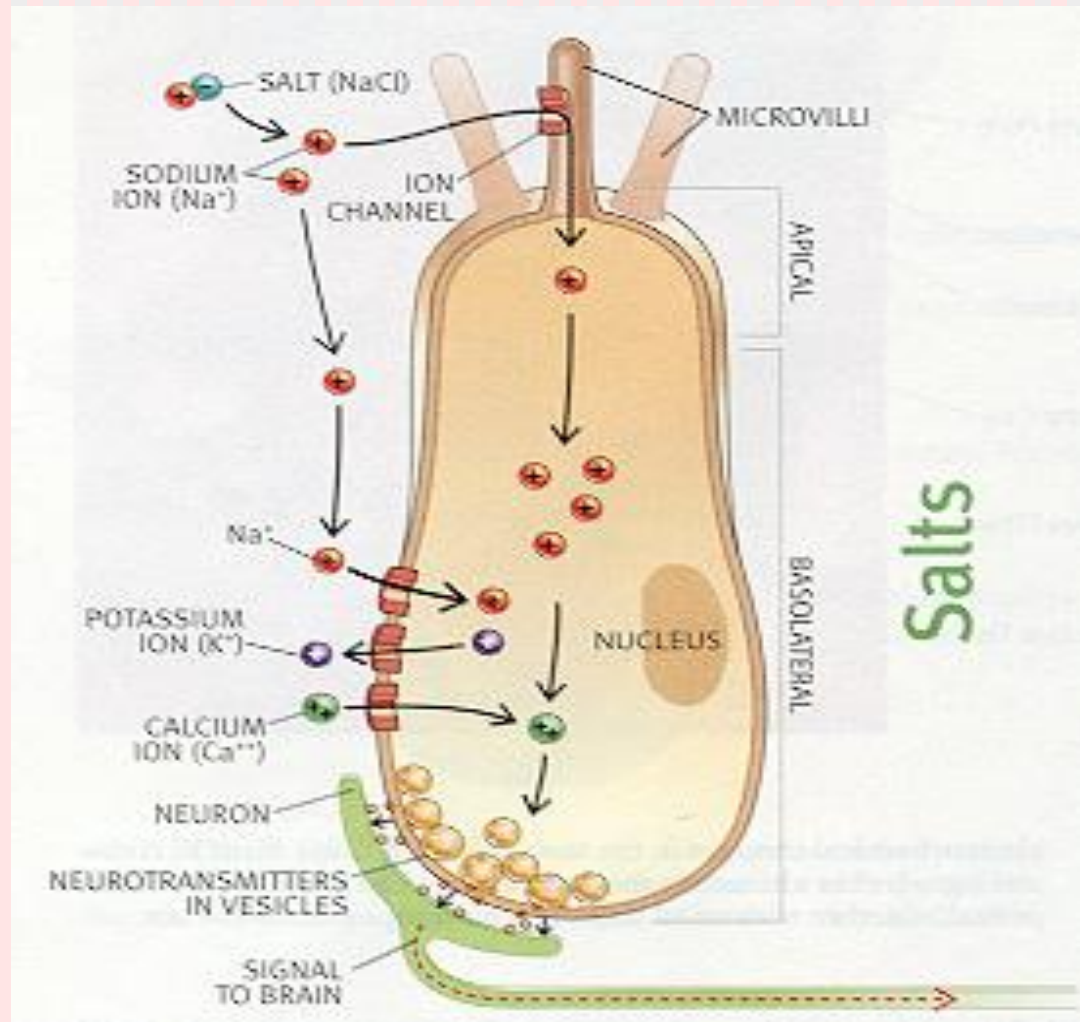
Fibra nervosa responde a estímulos de diversas categorias, mas em diferentes graus de preferência



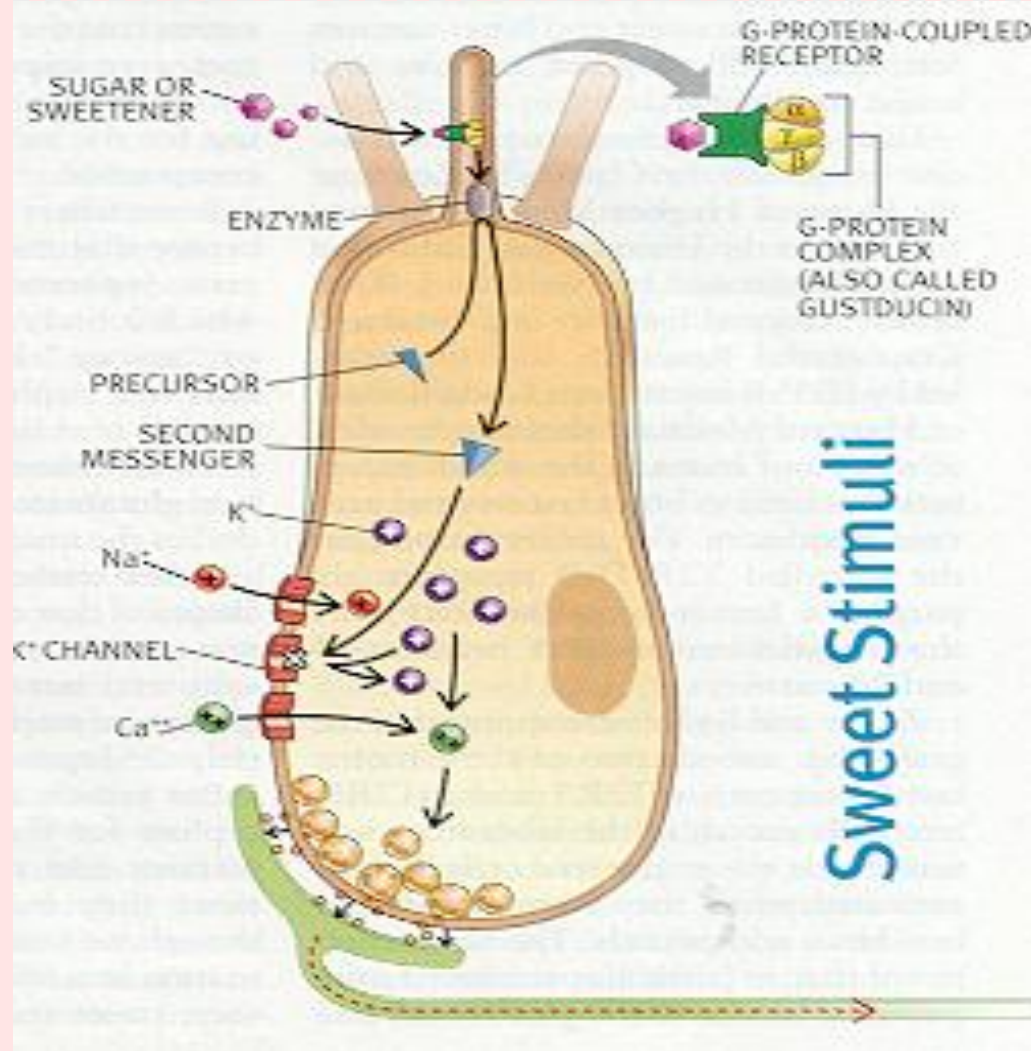
Substâncias das 4 categorias

Doce	Azedo	Salgado	Amargo
Glicose	Ácido clorídrico	Sal de cozinha	Sulfato de quinino
Sacarose	Ácido acético	Cloreto de amônio	Nicotina
Sacarina	Ácido cítrico	Cloreto de magnésio	Cafeína
D-leucina	Ácido tartárico	Fluoreto de sódio	D-leucina
Cloreto de berílio			Sulfato de magnésio

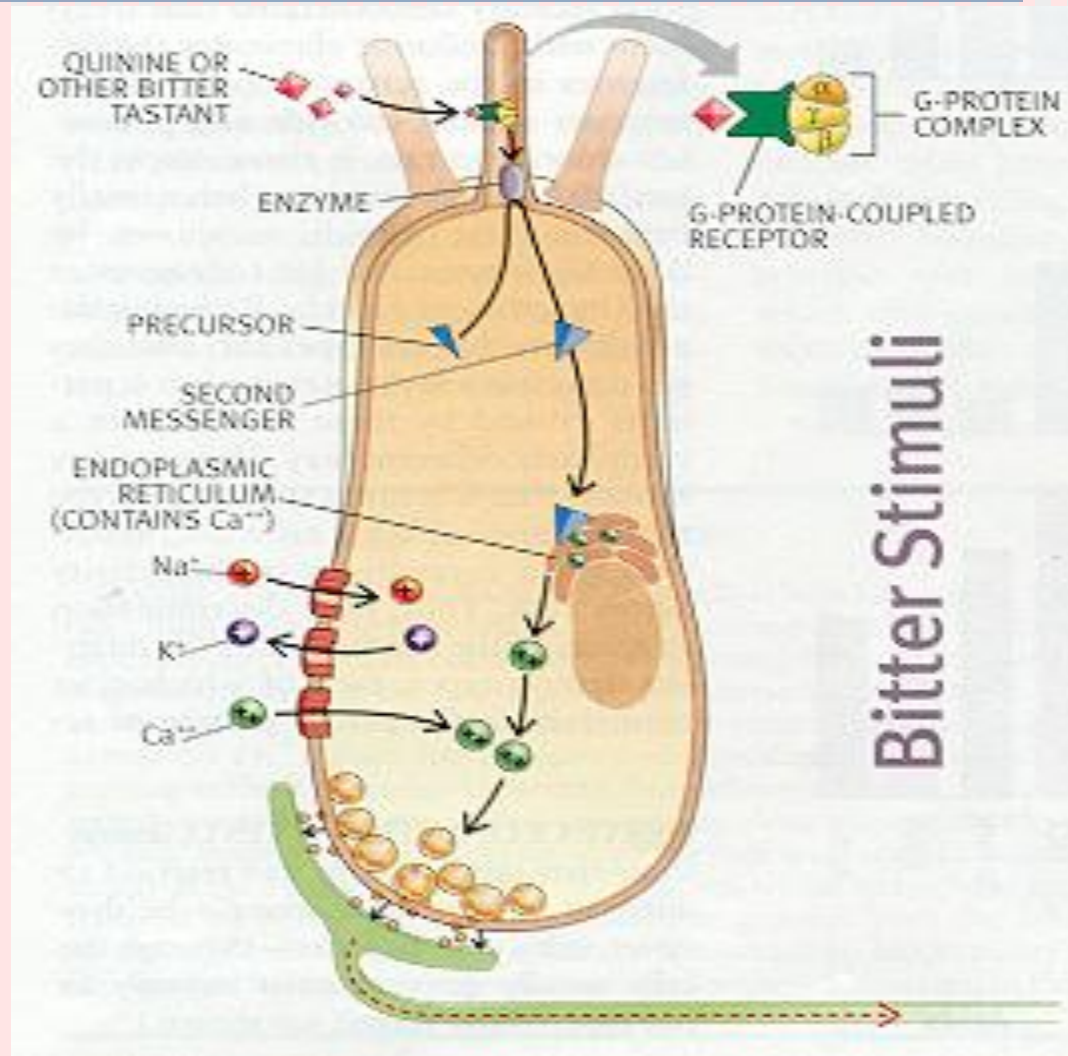
Efeito do estímulo **salgado** na célula gustativa



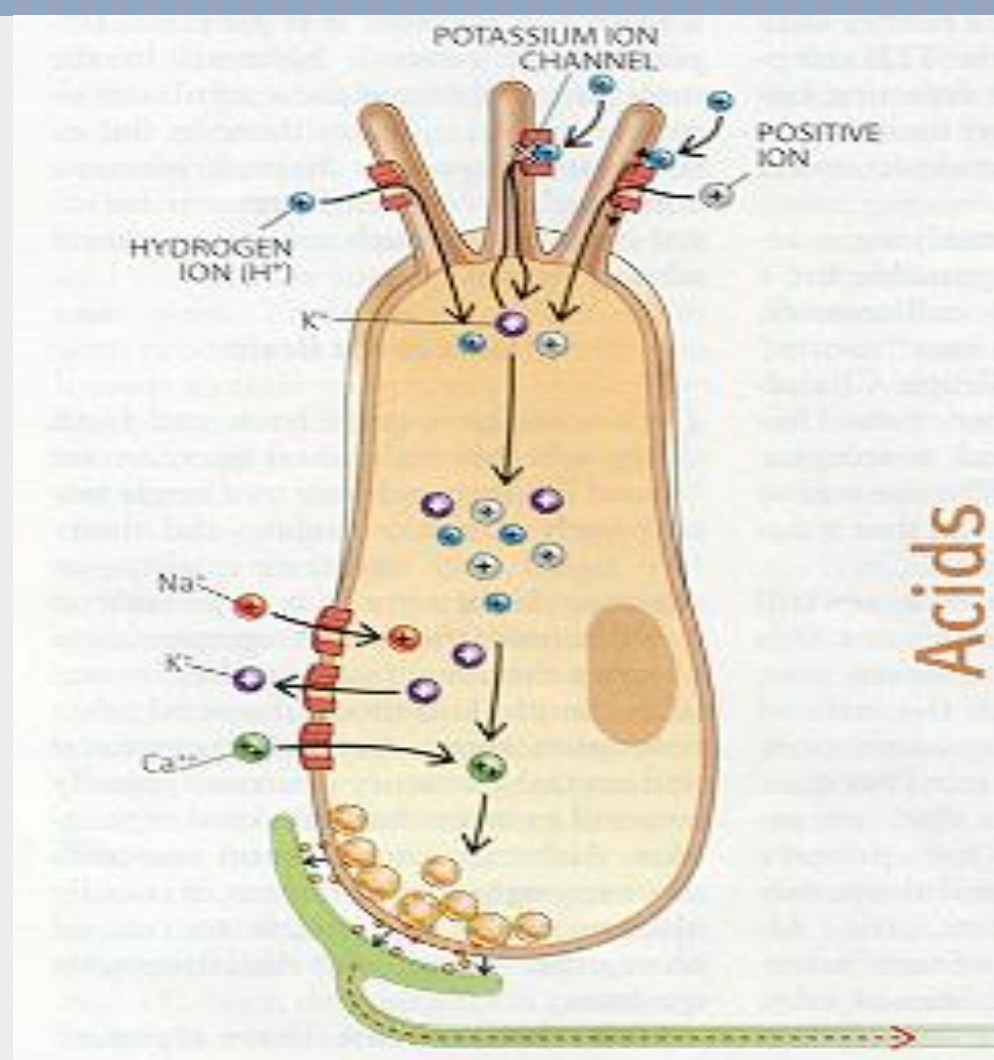
Efeito do estímulo **doce** na célula gustativa



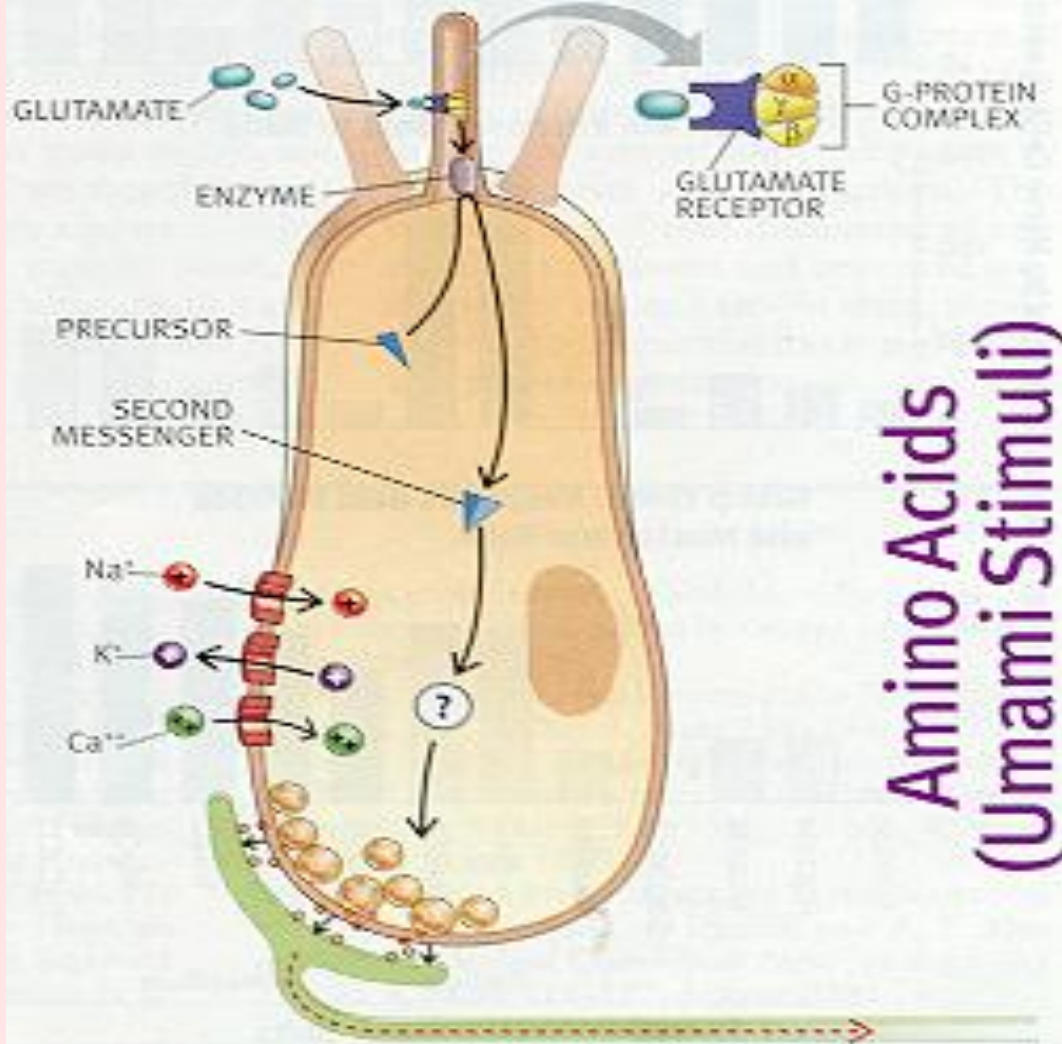
Efeito do estímulo **amargo** na célula gustativa



Efeito do estímulo **ácido** na célula gustativa



Efeito do **aminoácido** na célula gustativa



Doce ?

Alterações das sensações gustativas

- AGEUSIA: perda total do gosto
- HIPOGEUSIA: diminuição da atividade gustativa
- DISGEUSIA: função gustativa desagradável ou alterada

Vias do Gosto

Papilas Circunvalada e foliadas

Papilas fungiformes

Botões gustativos fora da língua

N. Glossofaríngeo (IX)

N. corda do tímpano (N. Facial)

**N. vago (X)
N. Facial (VII)**

NTS

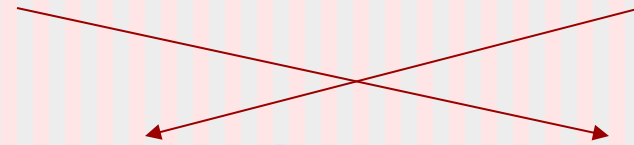
Núcleo Caudal Parabraquial

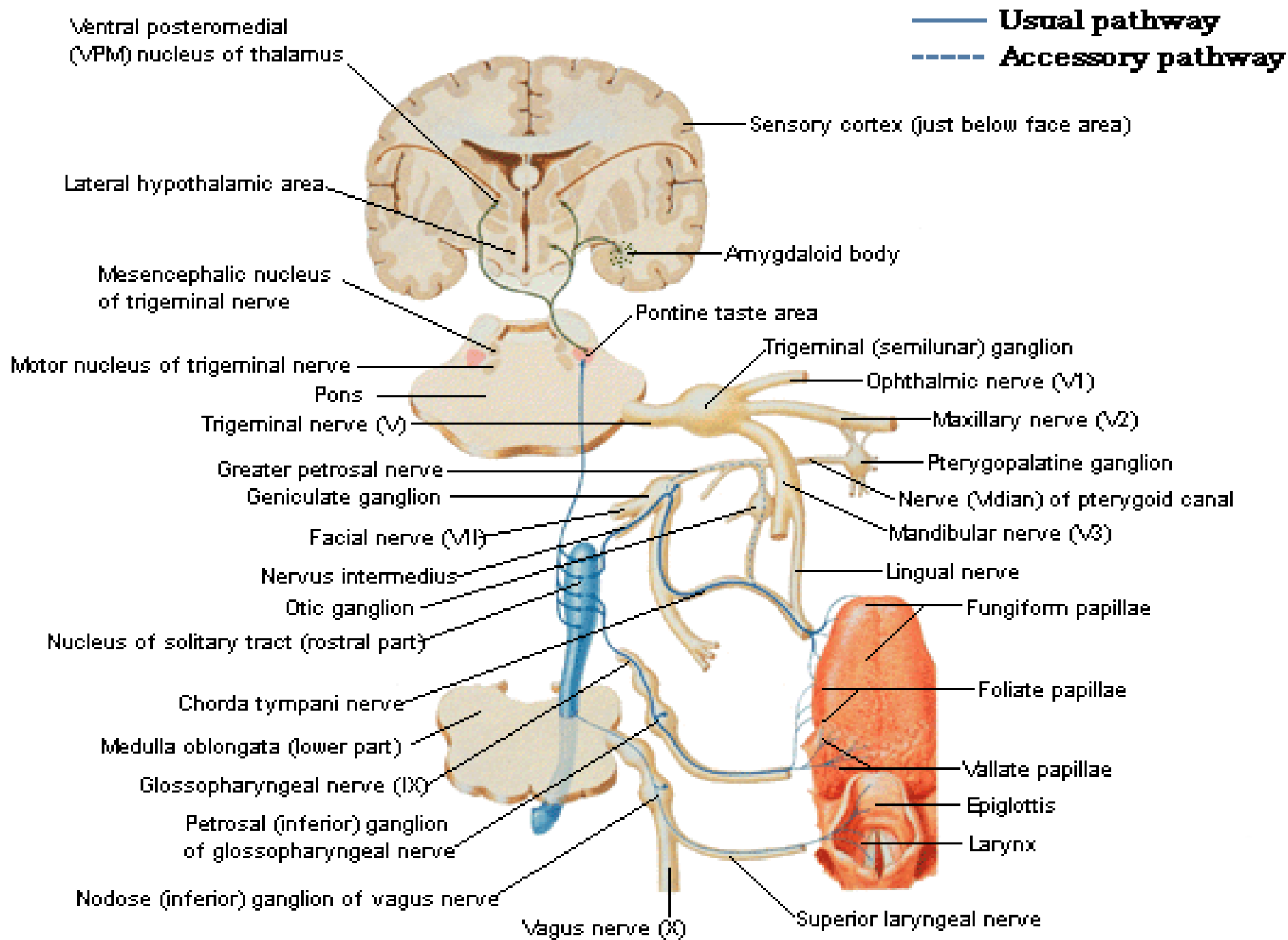
Tálamo

Hipotálamo

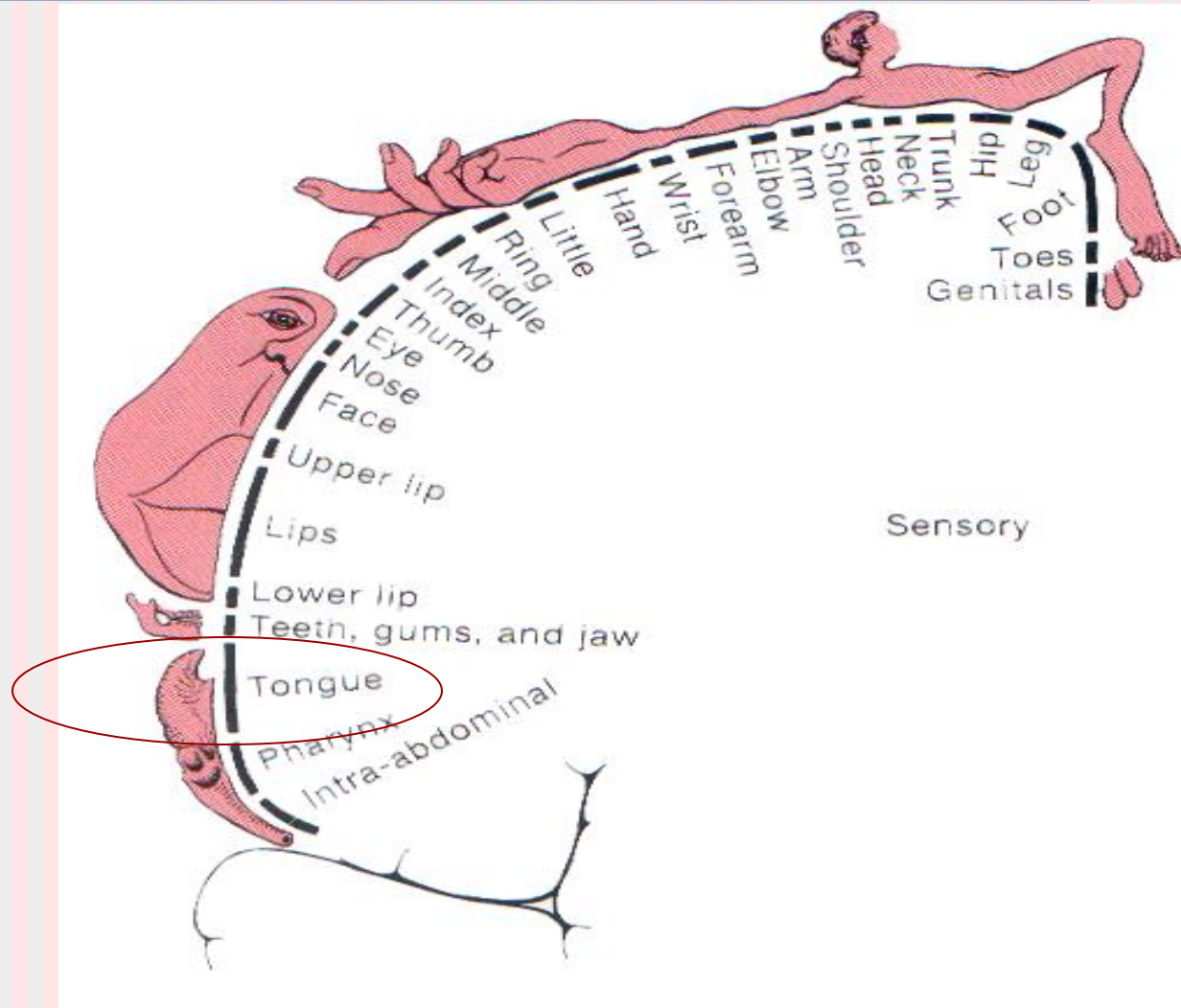
Córtex Sensorial

Amígdala



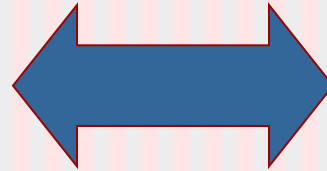


Representação da língua no córtex



Projeções hipotalâmicas e Límbicas

Gustação



Olfato

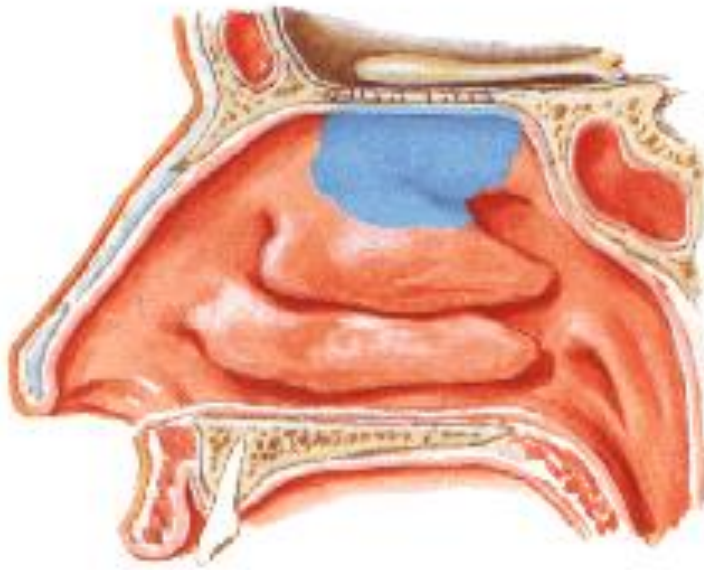
Fisiologia dos Receptores Olfativos



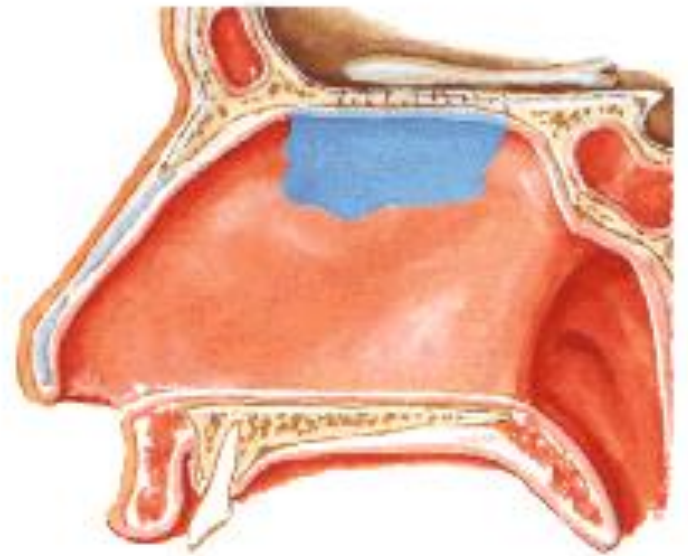
Tipos de odores primários

- **Floral:** alfa-ionona, álcool betafeniletílico
- **Etéreo:** 1,2-dicloretoano, acetato de benzila
- **Almiscoarado:** anéis cetônicos (C_{15-17})
- **Canforado:** cânfora, 1,8-cineol
- **De suor:** ácido isovaler6anico, ácido butírico
- **Fétido:** sulfureto de hidrogênio, etilmercaptano
- **Penetrante:** ácido fórmico, ácido acético

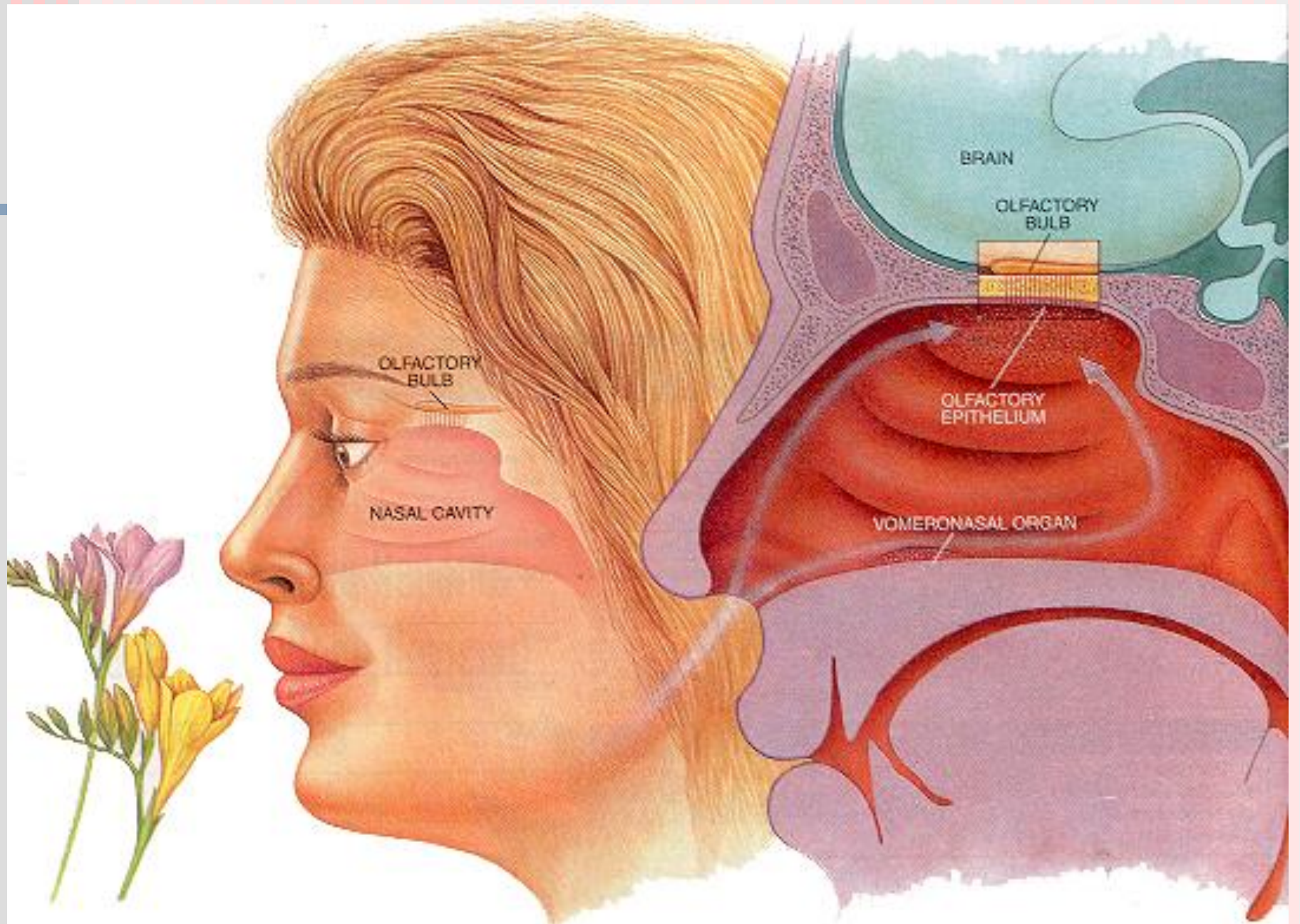
Cavidade nasal



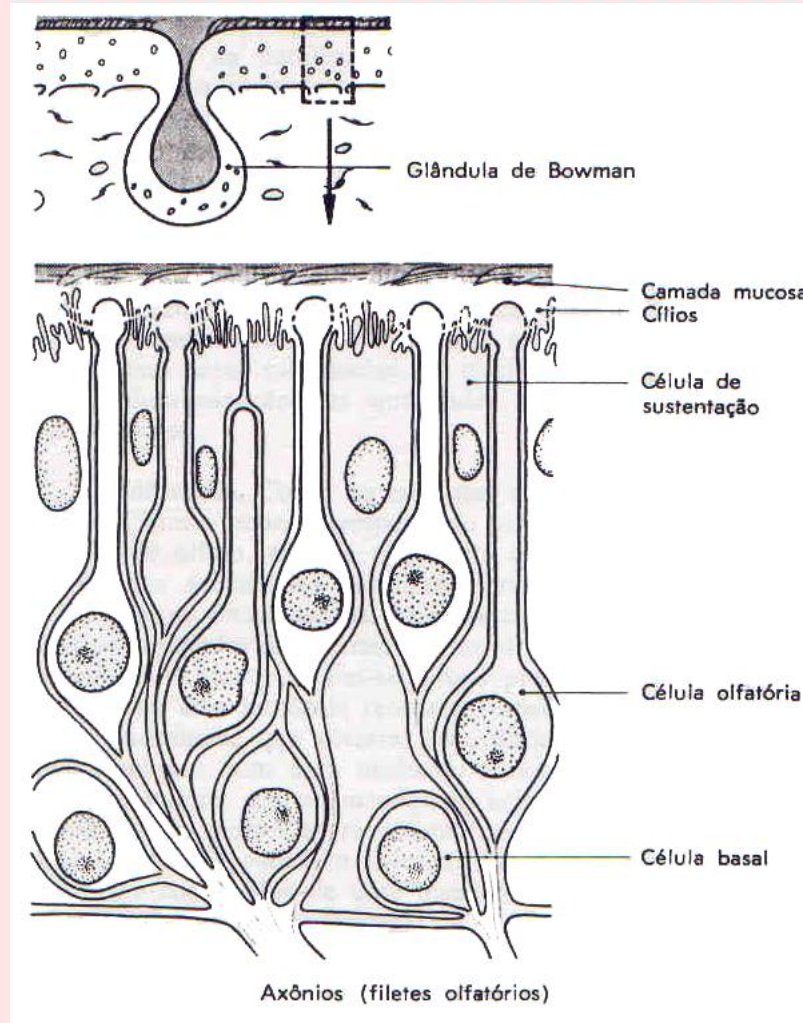
Lateral nasal wall



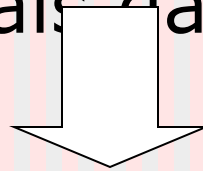
Nasal septum



Mucosa da região olfatória

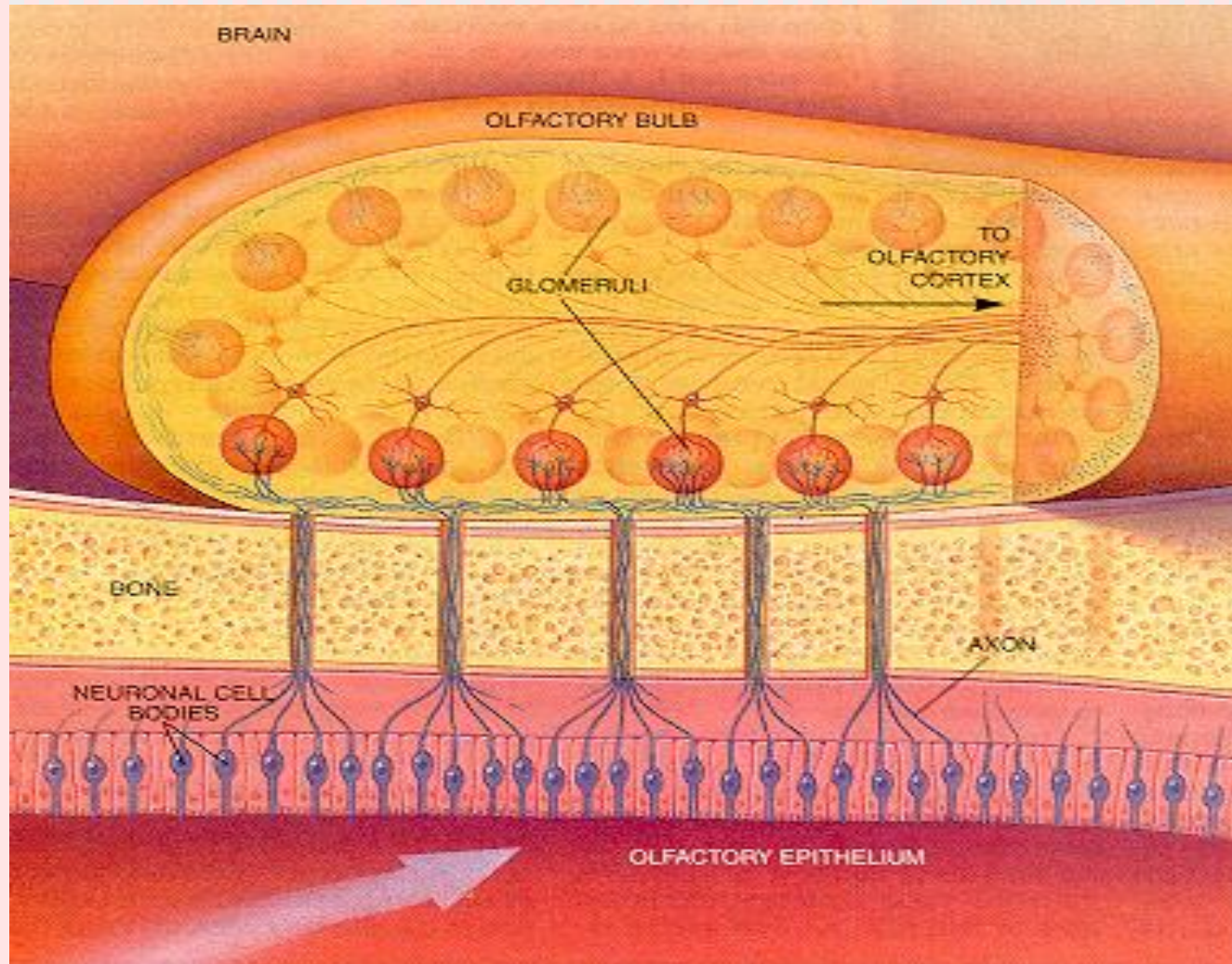


Sensações olfativa não são exclusivas das células sensoriais da região olfatória

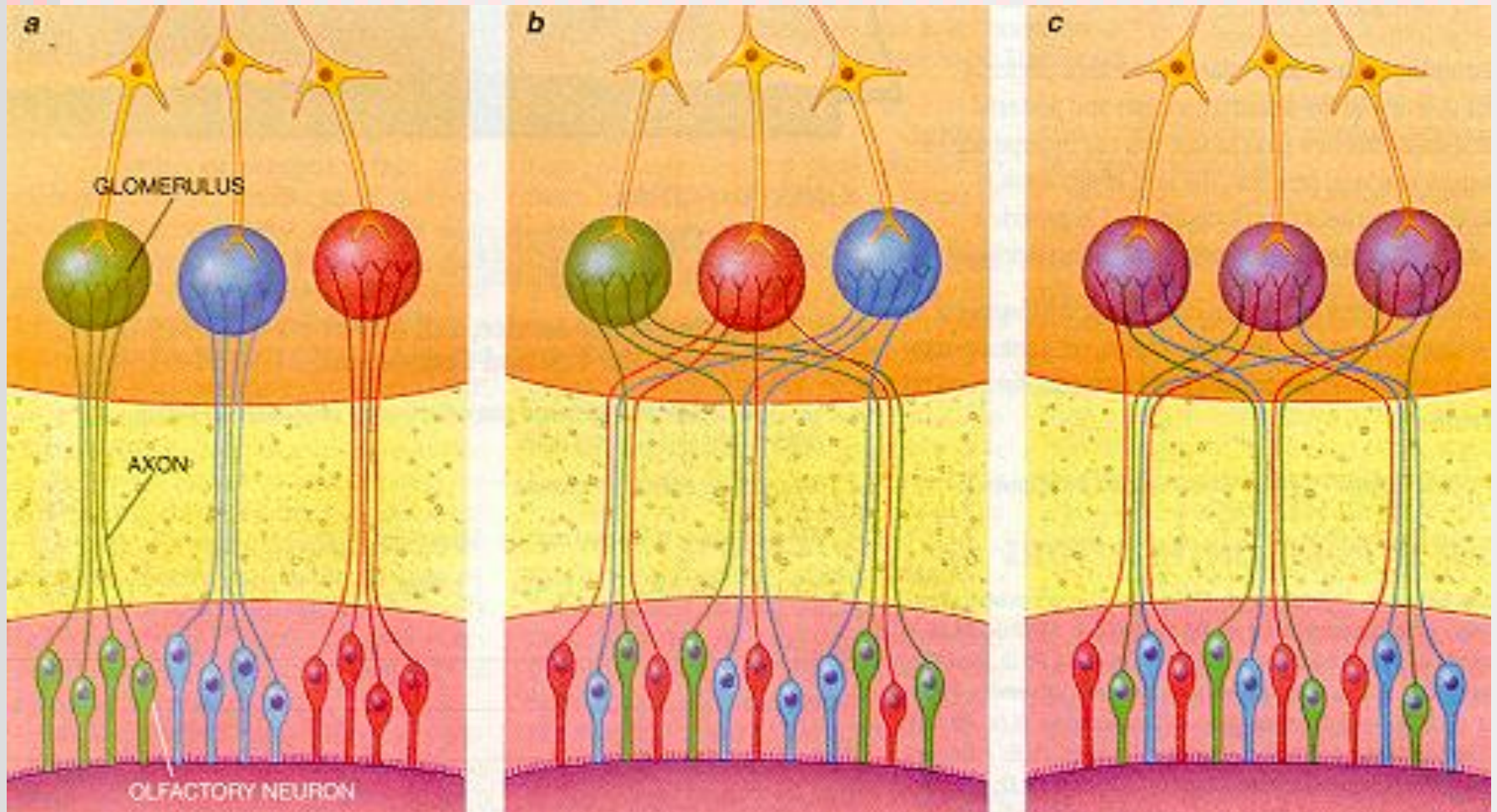


Terminações nervosas livres de fibras nervosas do n. trigêmeo (V) reagem a substâncias odoríferas (região respiratória)

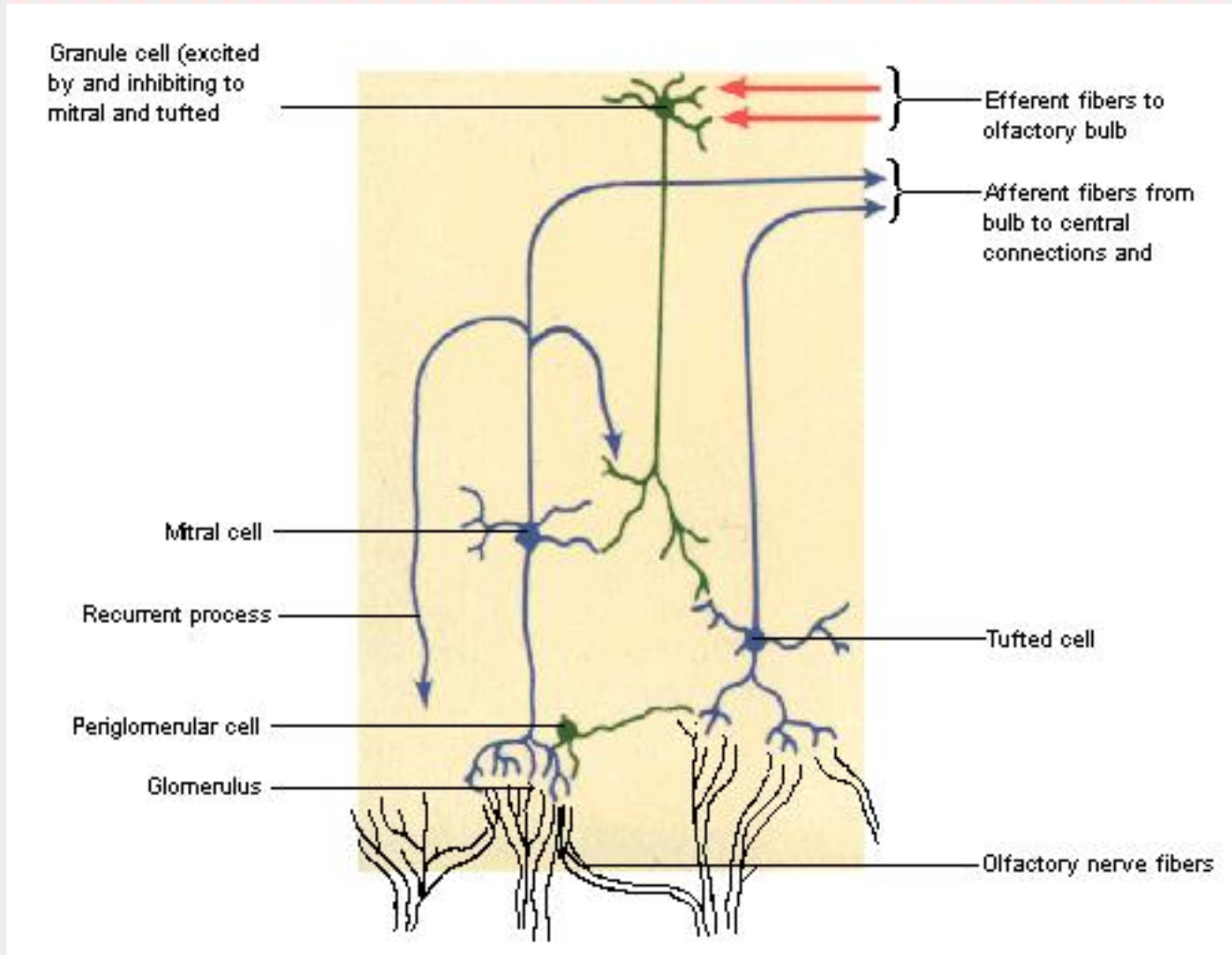
Bulbo olfatório



Regiões do bulbo olfatório



Células do Bulbo Olfatório



Vias Olfativas

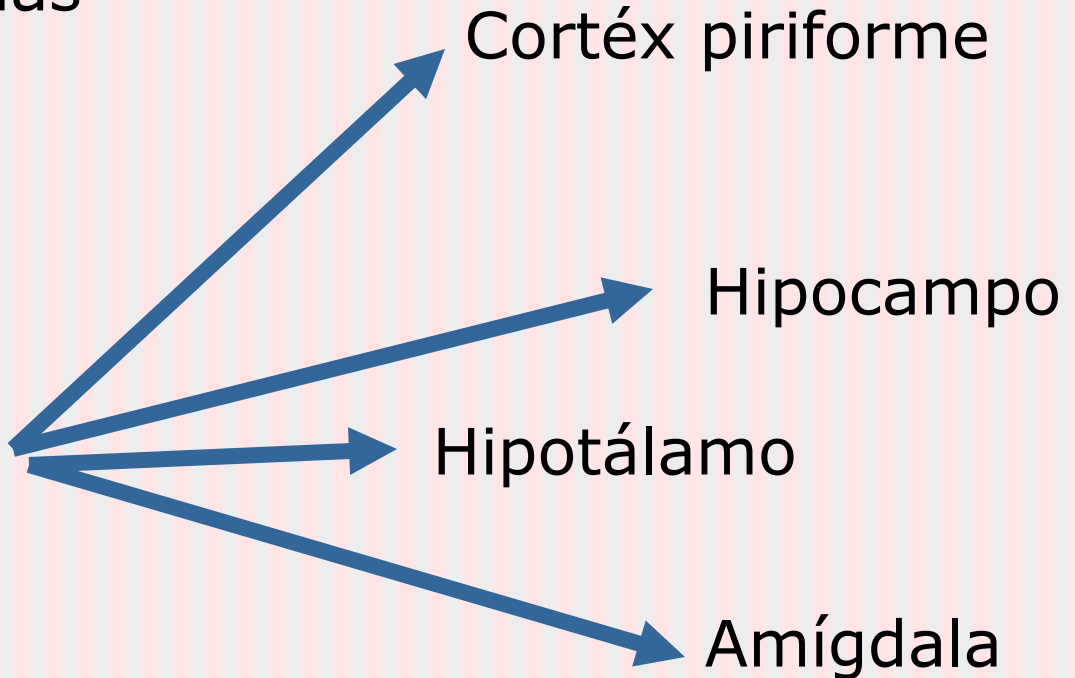
Células Olfatórias

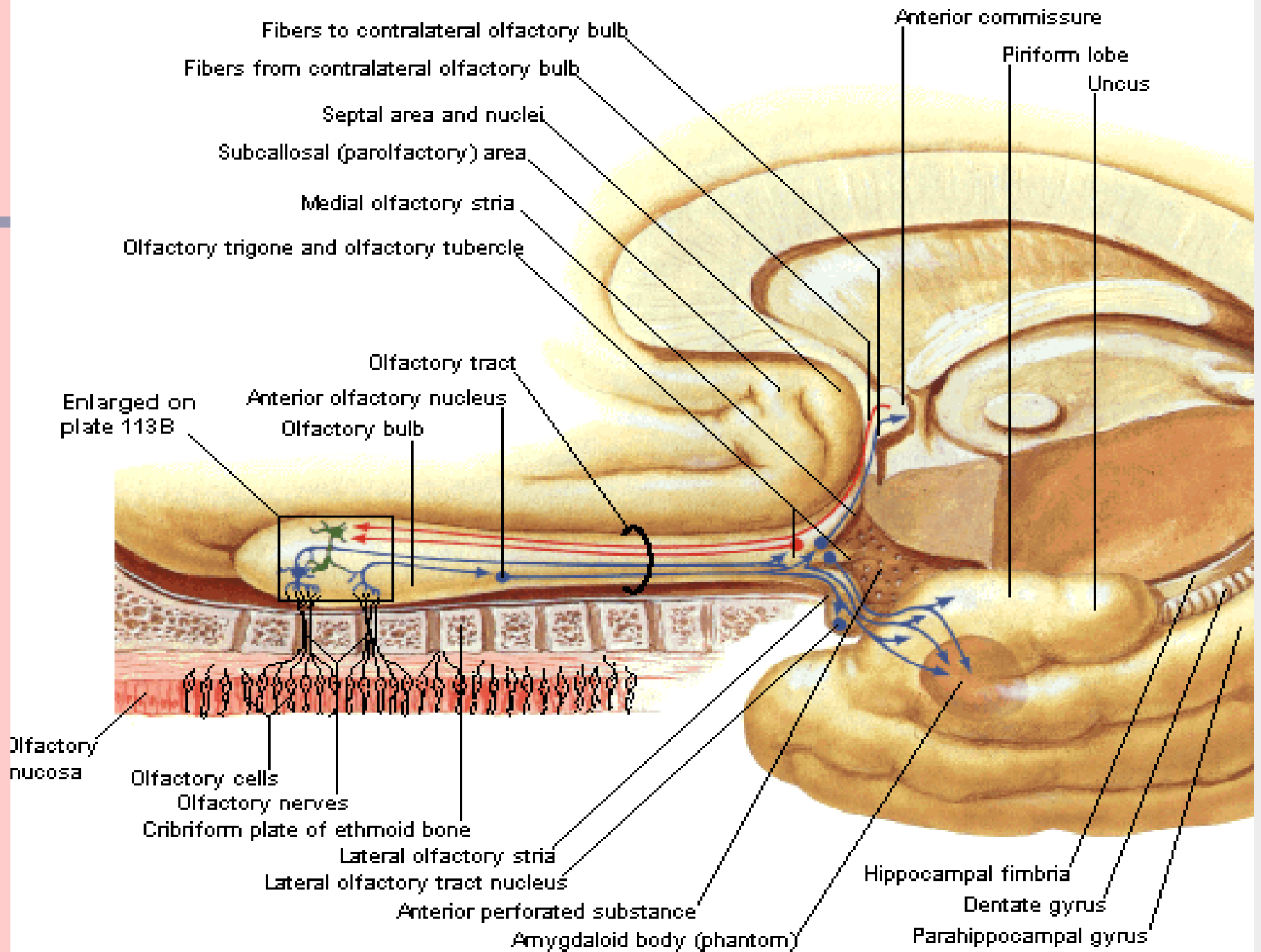


Bulbo olfatório



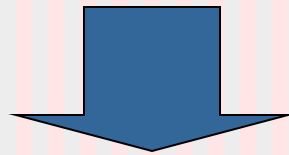
Trato Olfatório





Anosmias

- Insensibilidade ou perda da sensibilidade para detectar certos odores



Herança genética

Trabalhando com o olfato

