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Olfactory and gustatory system

**Olfaction and sense of taste are closely interconnected
„chemical senses“**

Olfaction and sense of smell are closely interconnected
“chemical senses”

Odour lasts in time

Olfaction

- Ability to sense chemical compounds dispersed in the air

Olfaction

- Ability to sense chemical compounds dispersed in the air
- Influenced evolution of neocortex

Olfaction

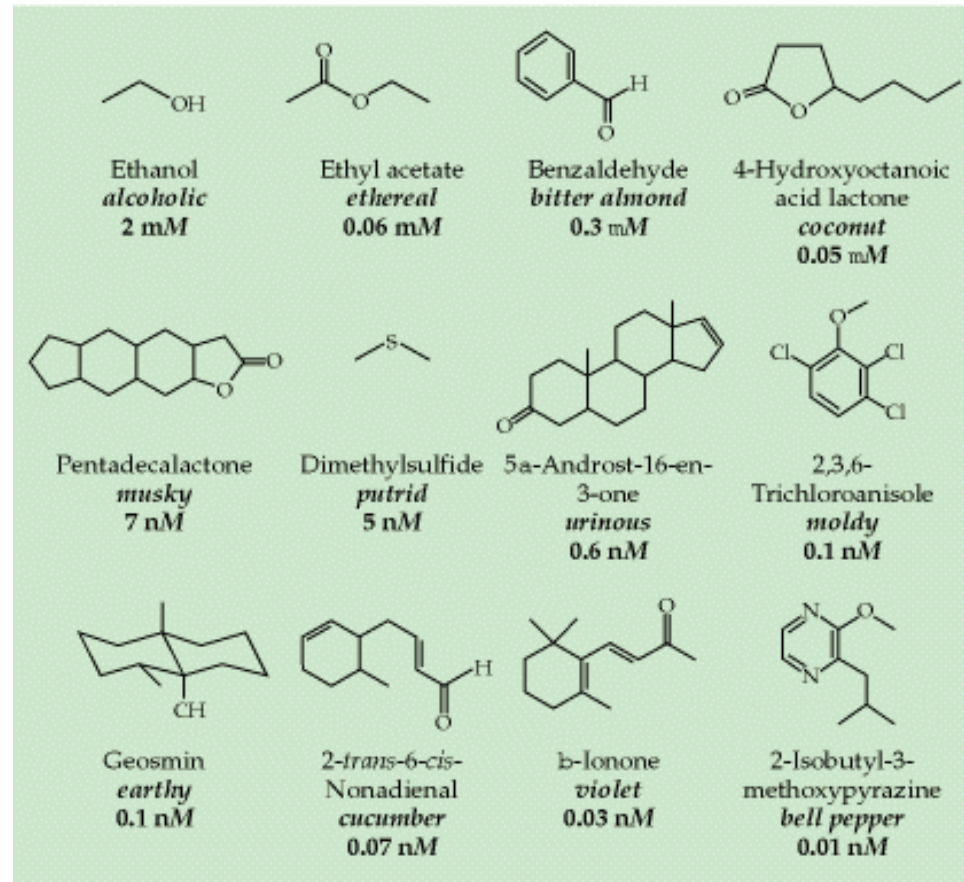
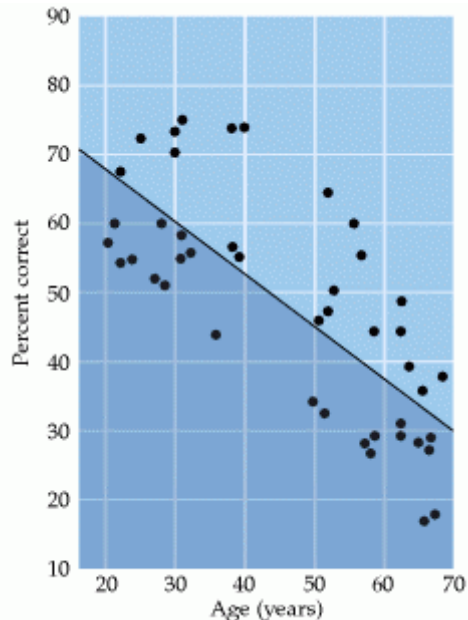
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- Influenced evolution of neocortex
- Place identification
- Food identification

Olfaction

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- Influenced evolution of neocortex
- Place identification
- Food identification
- Human being is a microolfactoric organism
 - Loss of analytic capabilities led to a relative enhancement of psychological component

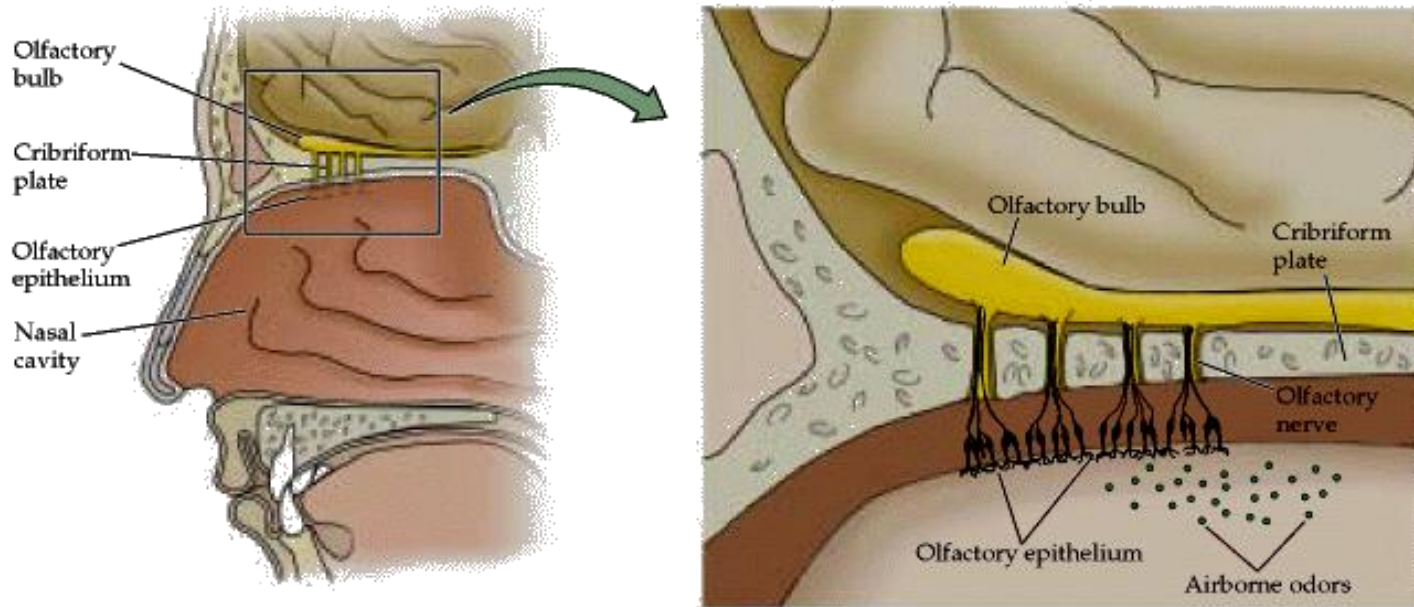
Olfaction

- Humans can distinguish about 80 chemicals
- Better sensitivity to liposoluble molecules
- Olfaction degenerates with age

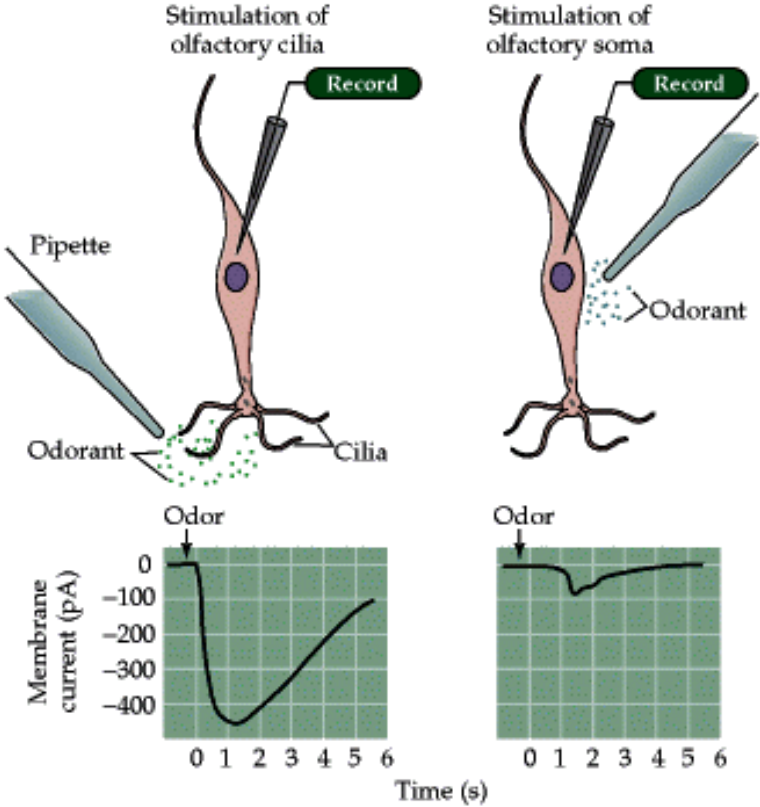
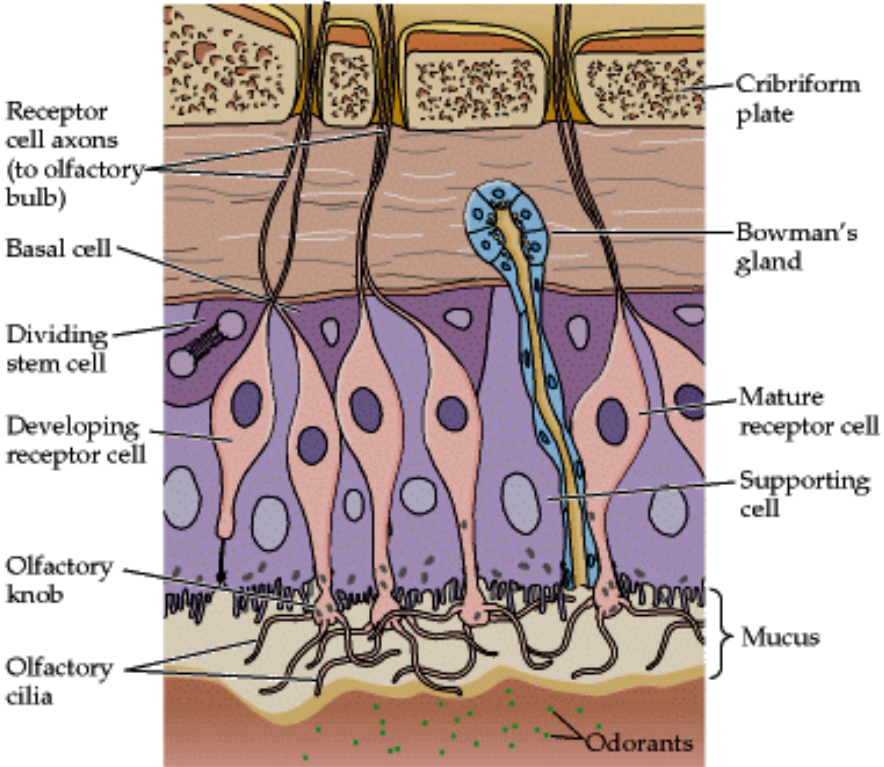


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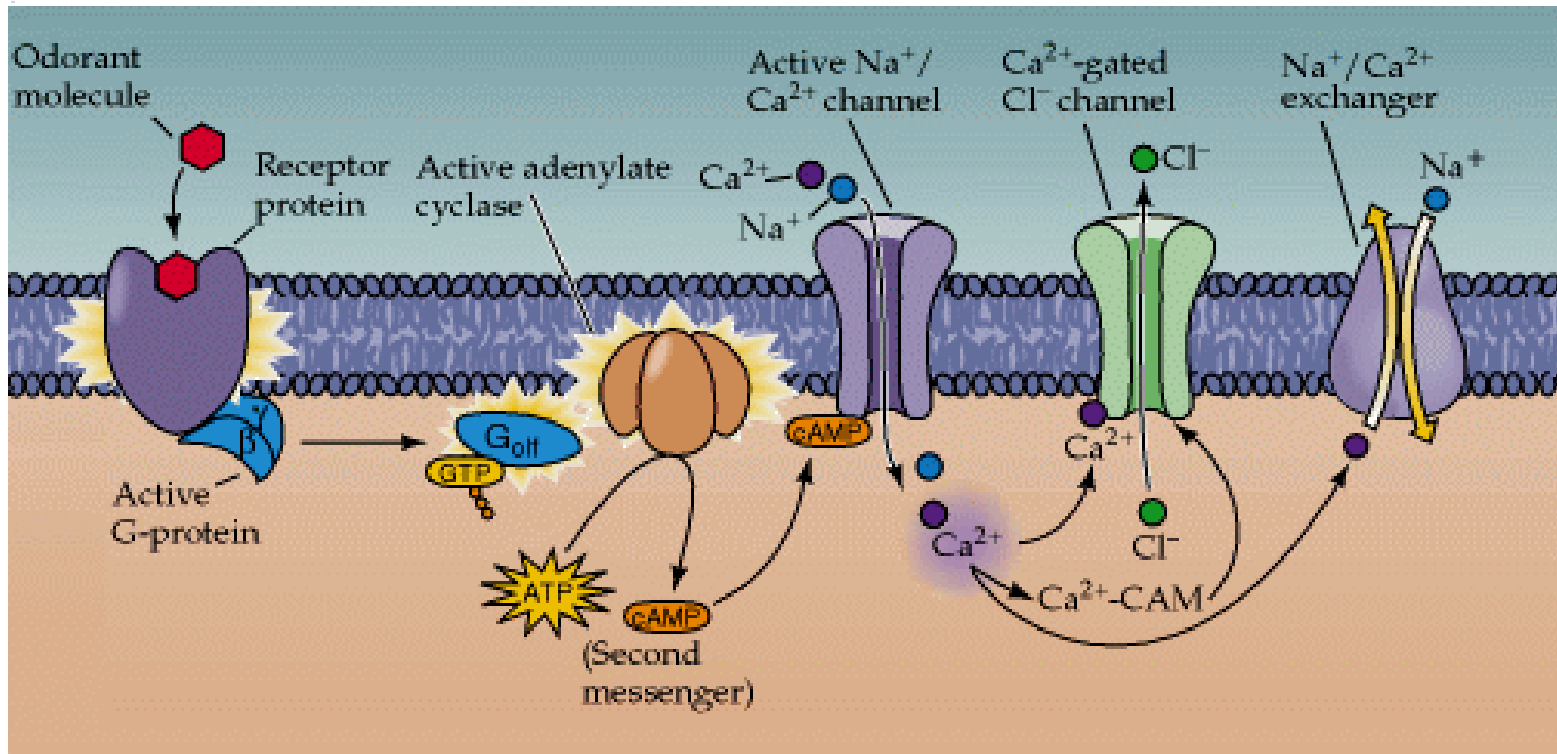
Olfaction



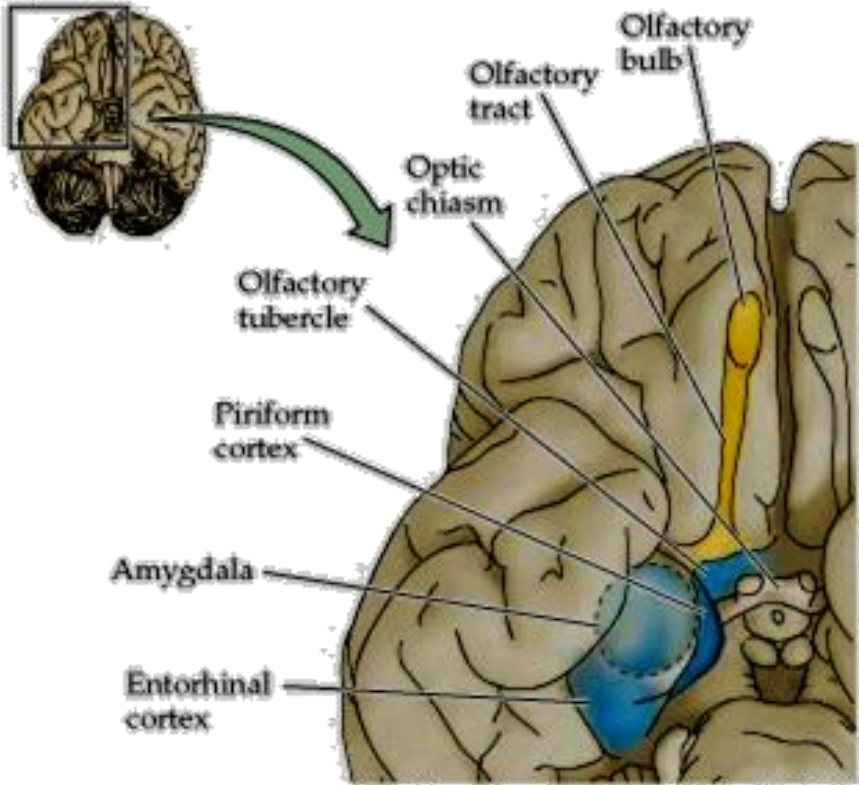
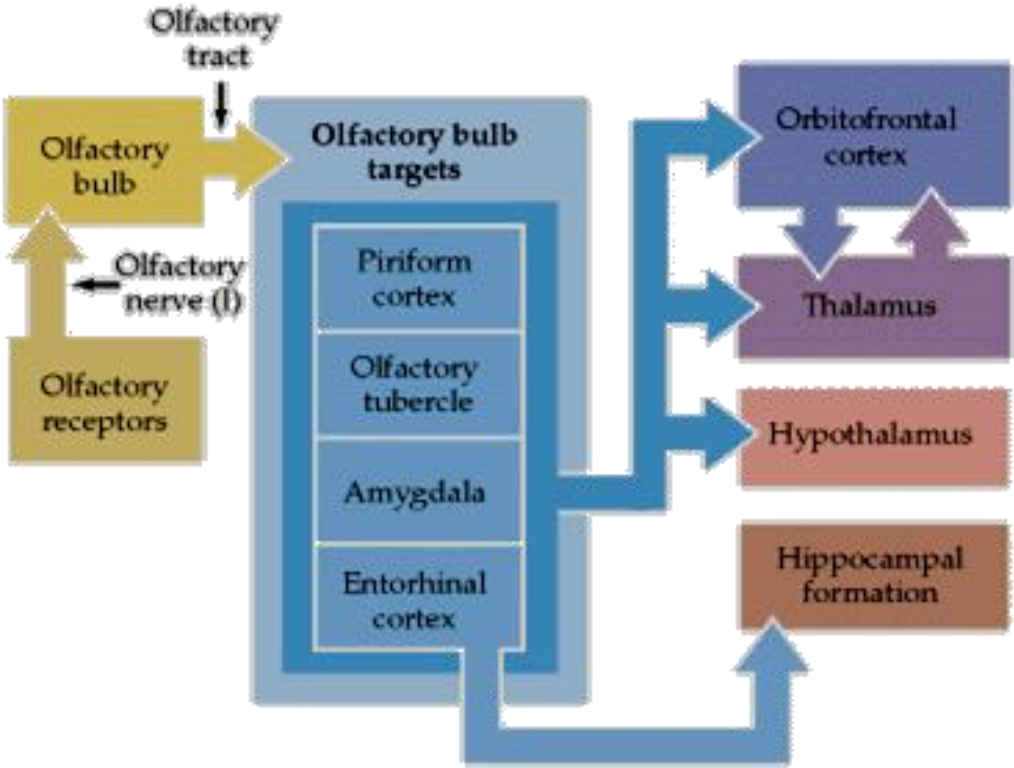
Olfaction



Olfaction



Olfaction



Sense of taste

- Ability to sense chemical compounds dissolved in saliva

Sense of taste

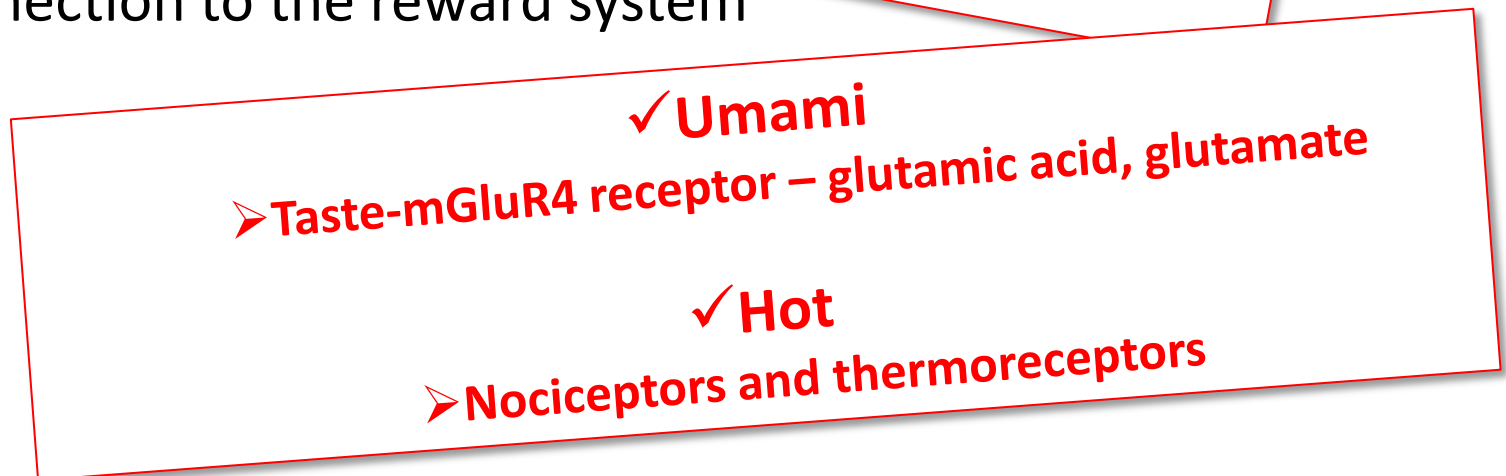
- Ability to sense chemical compounds dissolved in saliva
- Close connection with olfaction
- Food identification

Sense of taste

- Ability to sense chemical compounds dissolved in saliva
- Close connection with olfaction
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- Connection to the reward system

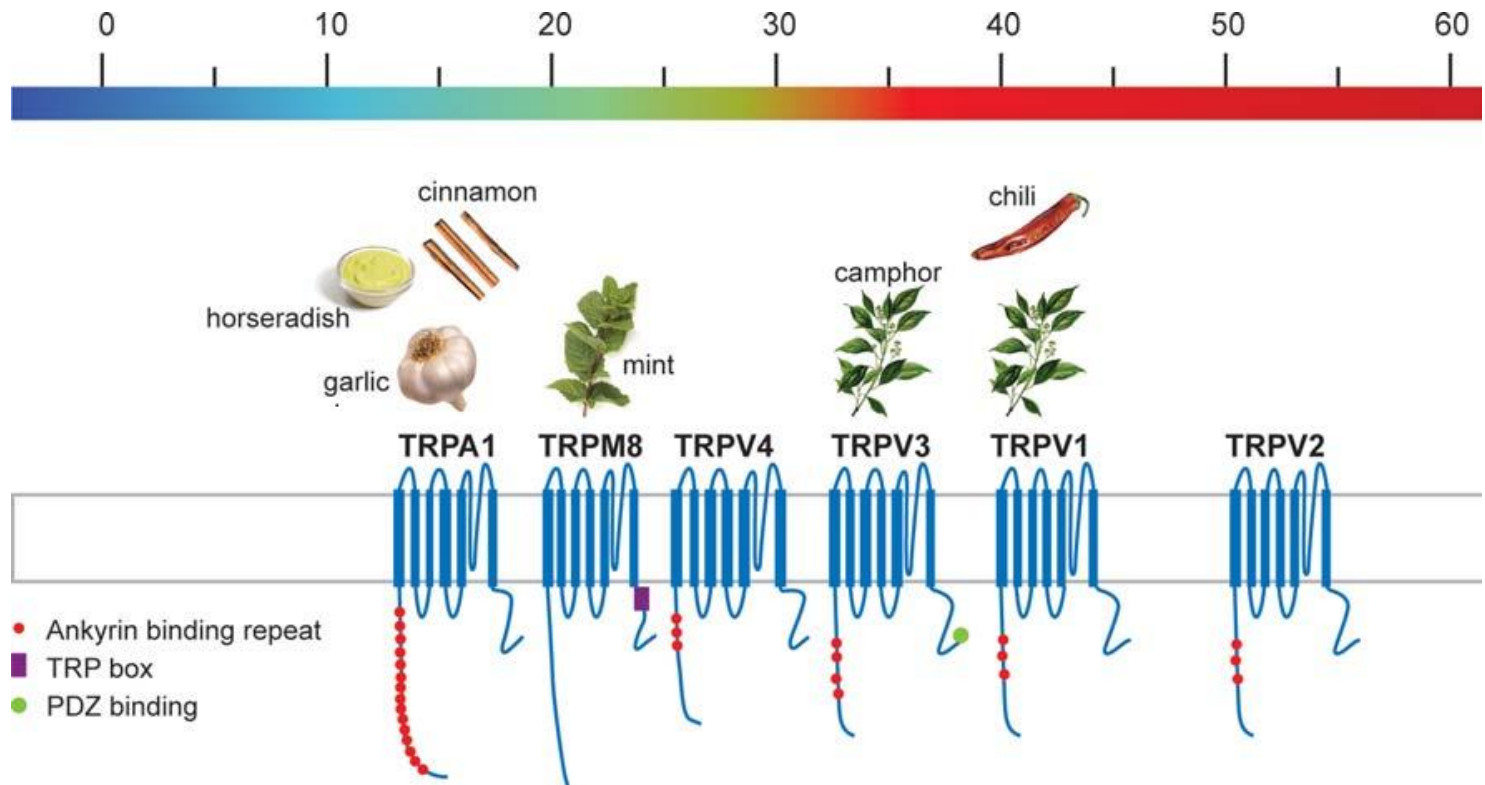
Sense of taste

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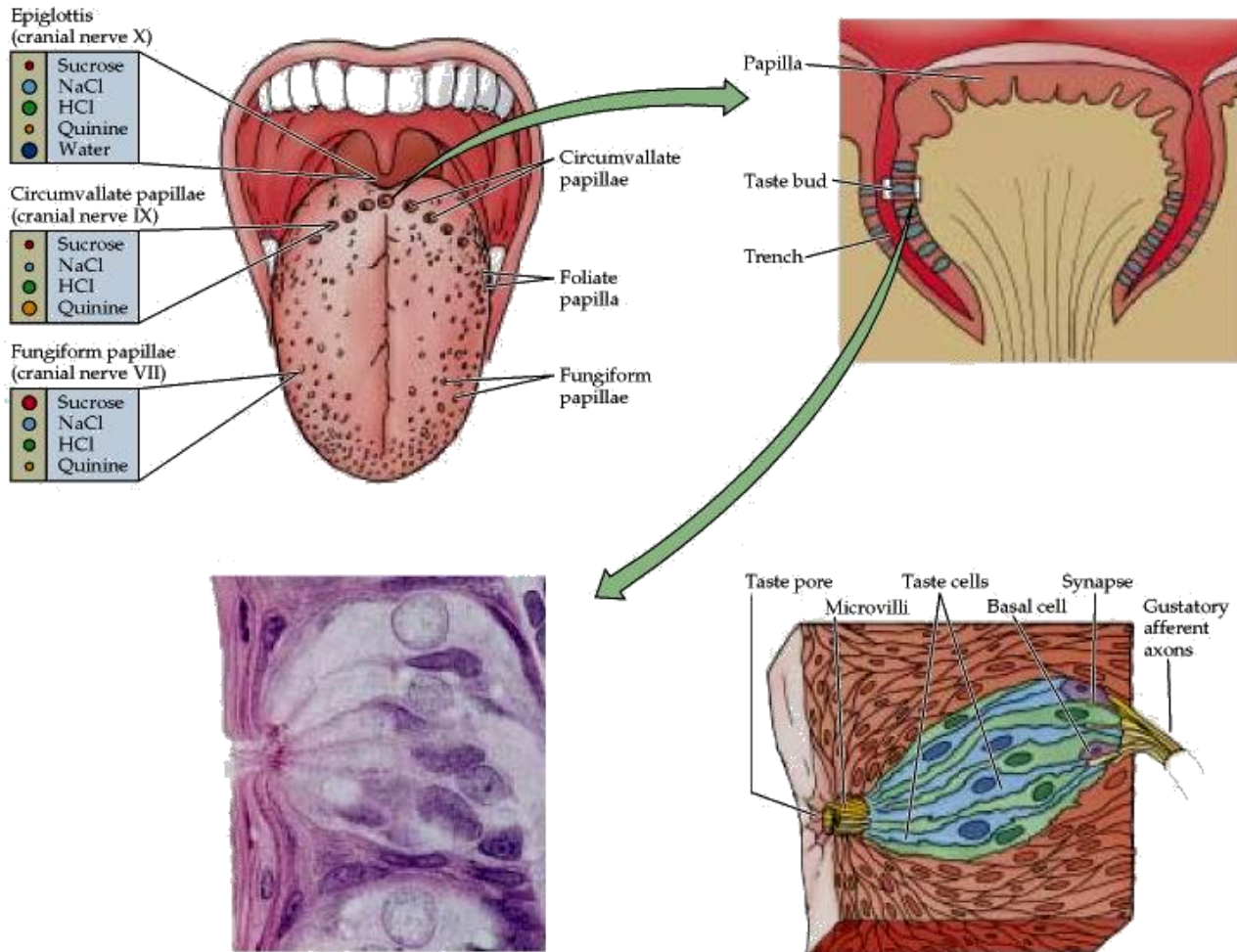


Thermoreceptors

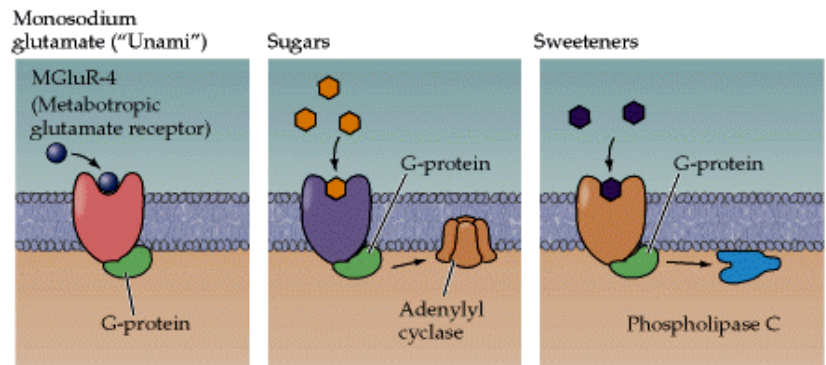
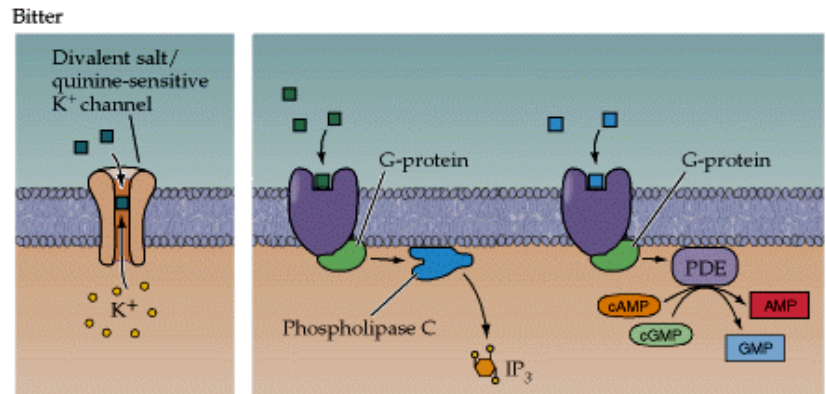
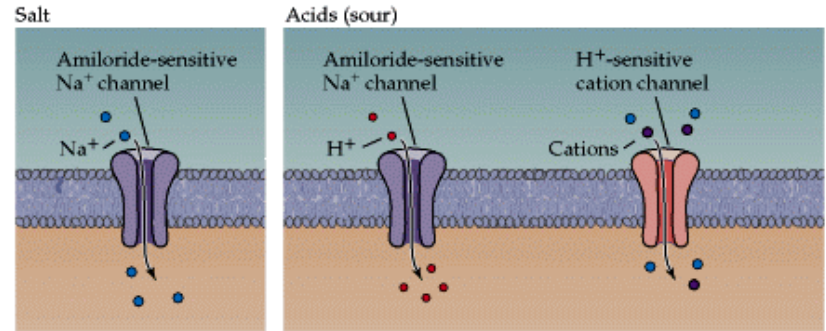
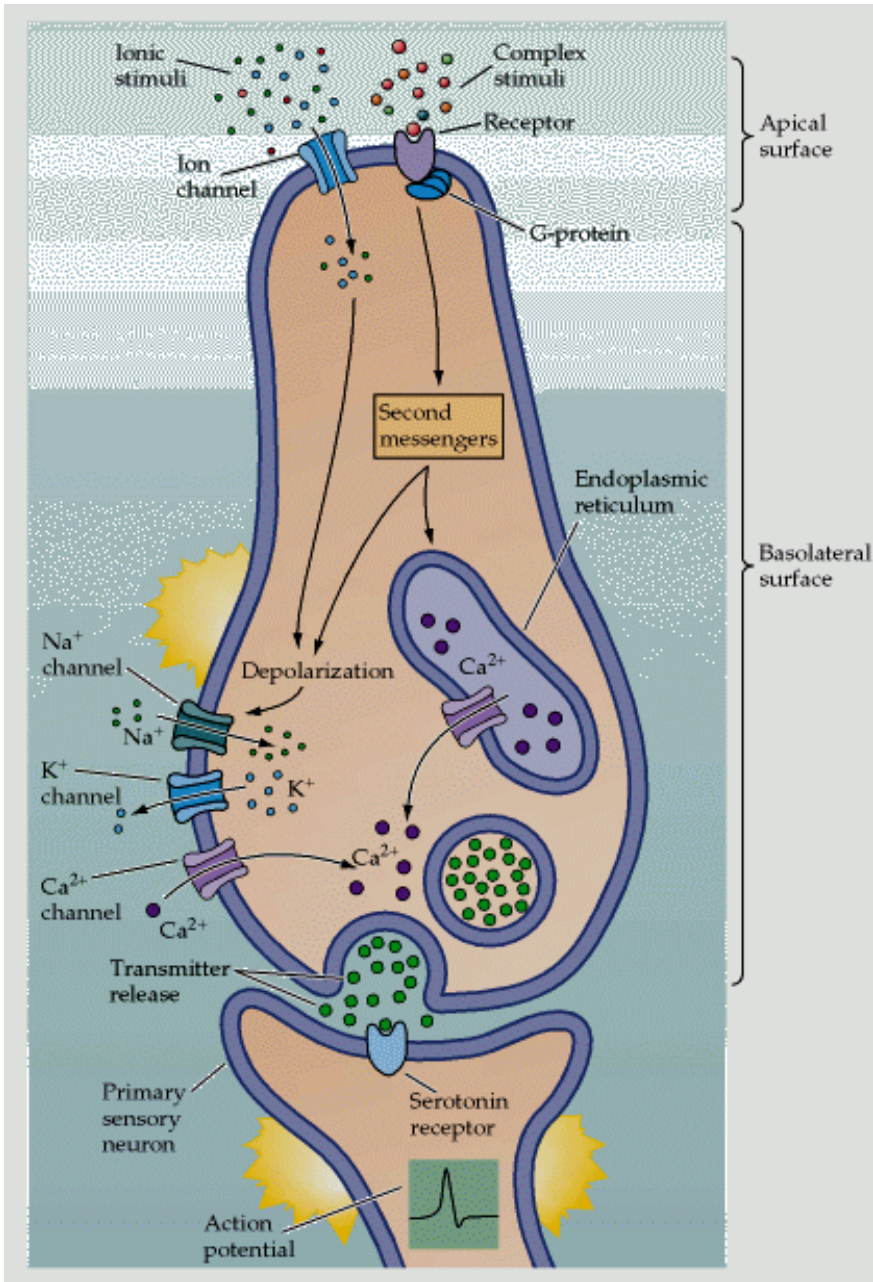
- Free nerve endings sensitive to heat
- TRP channels(transient receptor potential)
- Each subtype of TRP channels is sensitive to a certain temperature and chemical substance



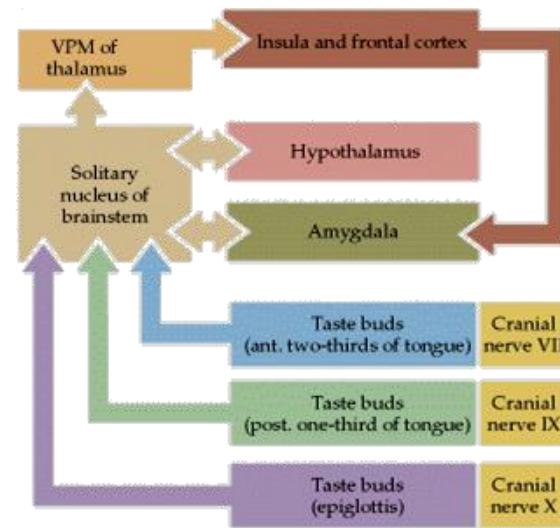
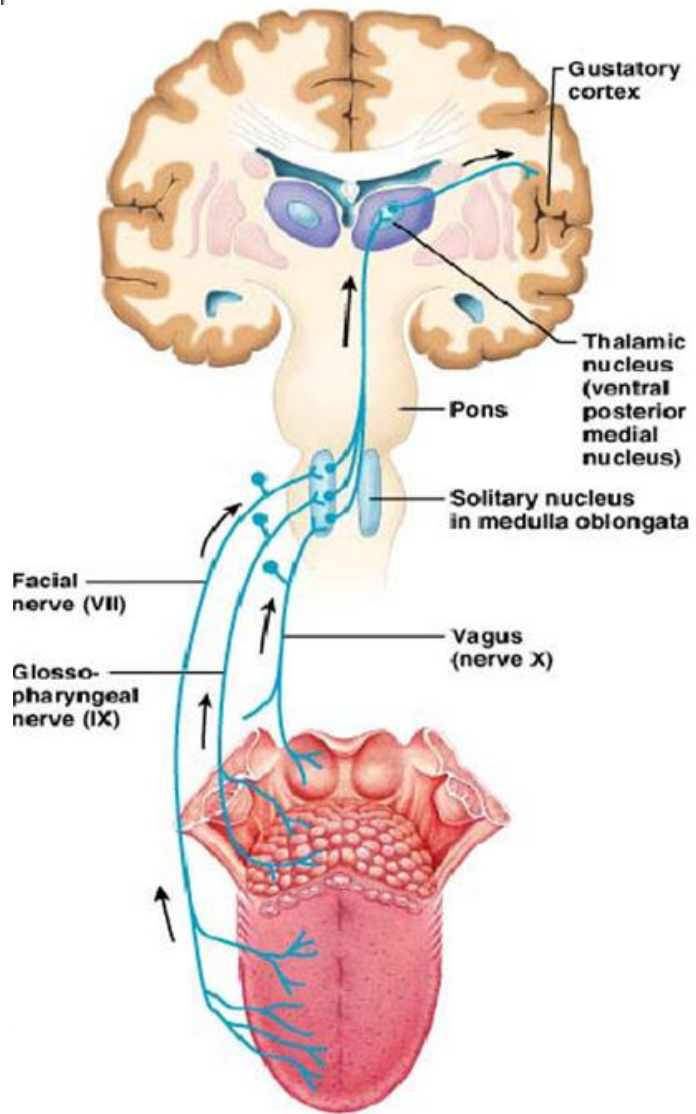
Sense of taste



Sense of taste



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