

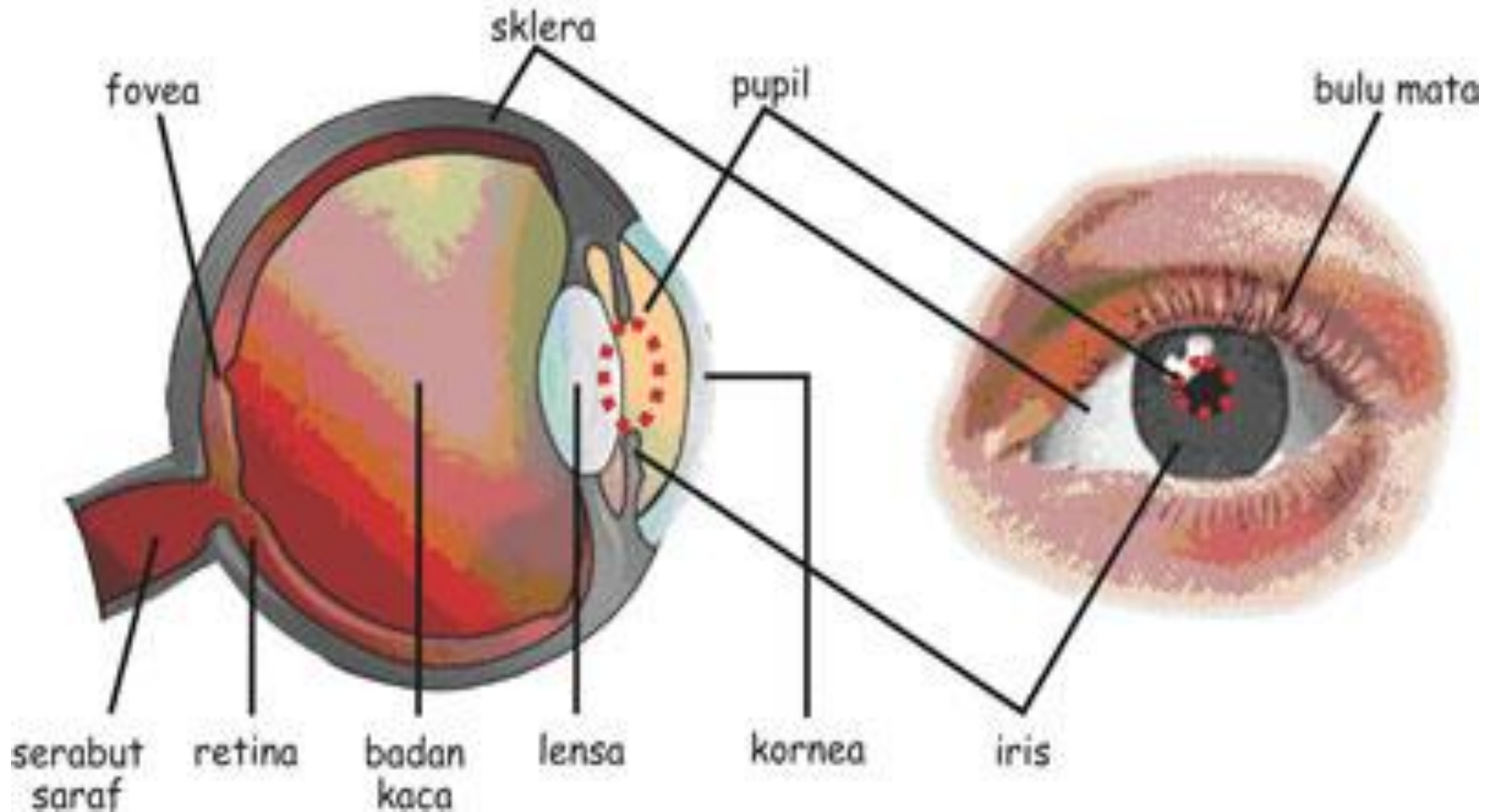
SISTEM INDRA MANUSIA

SMA Regina Pacis Jakarta

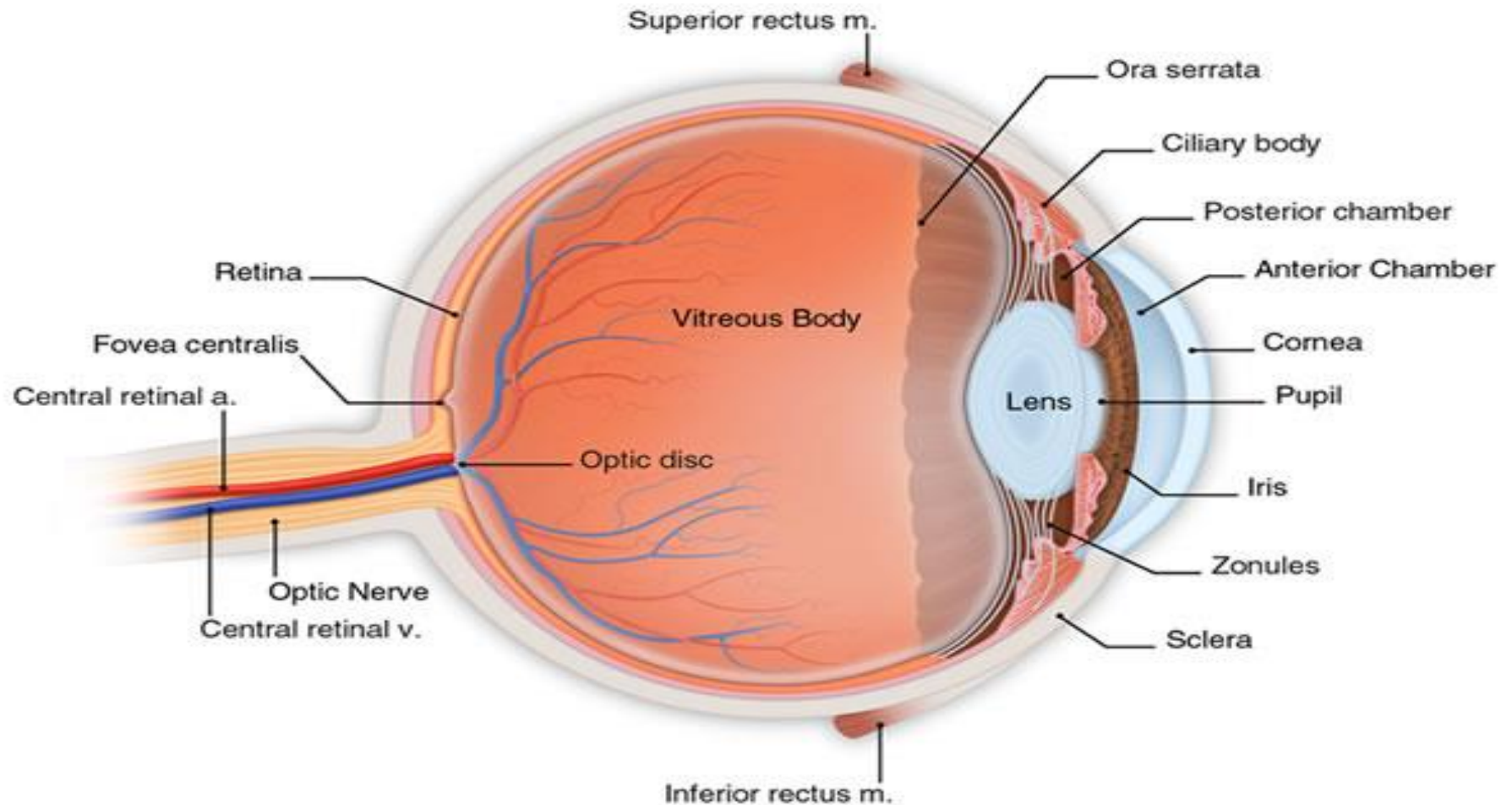
by Ms. Evy Anggraeny

INDRA PENGLIHATAN : BAGIAN MATA

Sumber : <http://media.tanyadokteranda.com/images//2008/11/anatomi-mata.jpg>



INDRA PENGLIHATAN : ANATOMI MATA

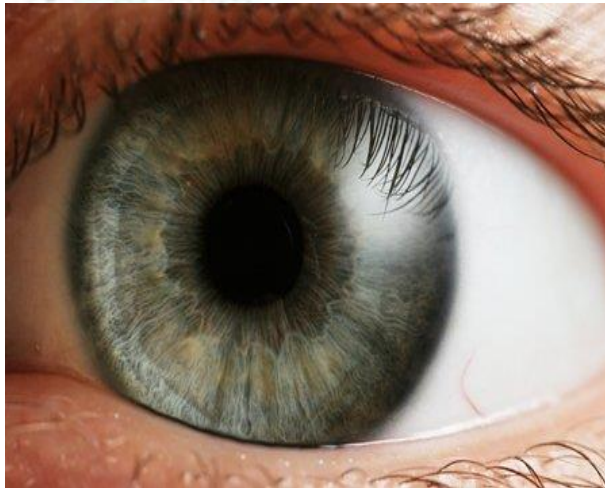


INDRA PENGLIHATAN : WARNA MATA

Sumber : <http://informasisehat.files.wordpress.com/2009/12/eye.jpg>



Fig. 1. View of the human eye



INDRA PENGLIHATAN : MATA

BAGIAN BOLA MATA :

1. SCLERA :

- ✓ Kornea
- ✓ Selaput konjungtiva
- ✓ Aqueous humour

2. KOROID :

- ✓ Iris
- ✓ Pupil
- ✓ Lensa mata

3. RETINA :

- ✓ Fovea
- ✓ Bintik buta
- ✓ Vitreous humour

INDRA PENGLIHATAN : MATA

Akomodasi lensa mata :

- ❖ Benda jauh akan memipih.
- ❖ Benda dekat akan mencembung.

Akomodasi pupil:

- ❖ Cahaya kuat akan memipih.
- ❖ Cahaya lemah akan mencembung.

Sel dalam retina :

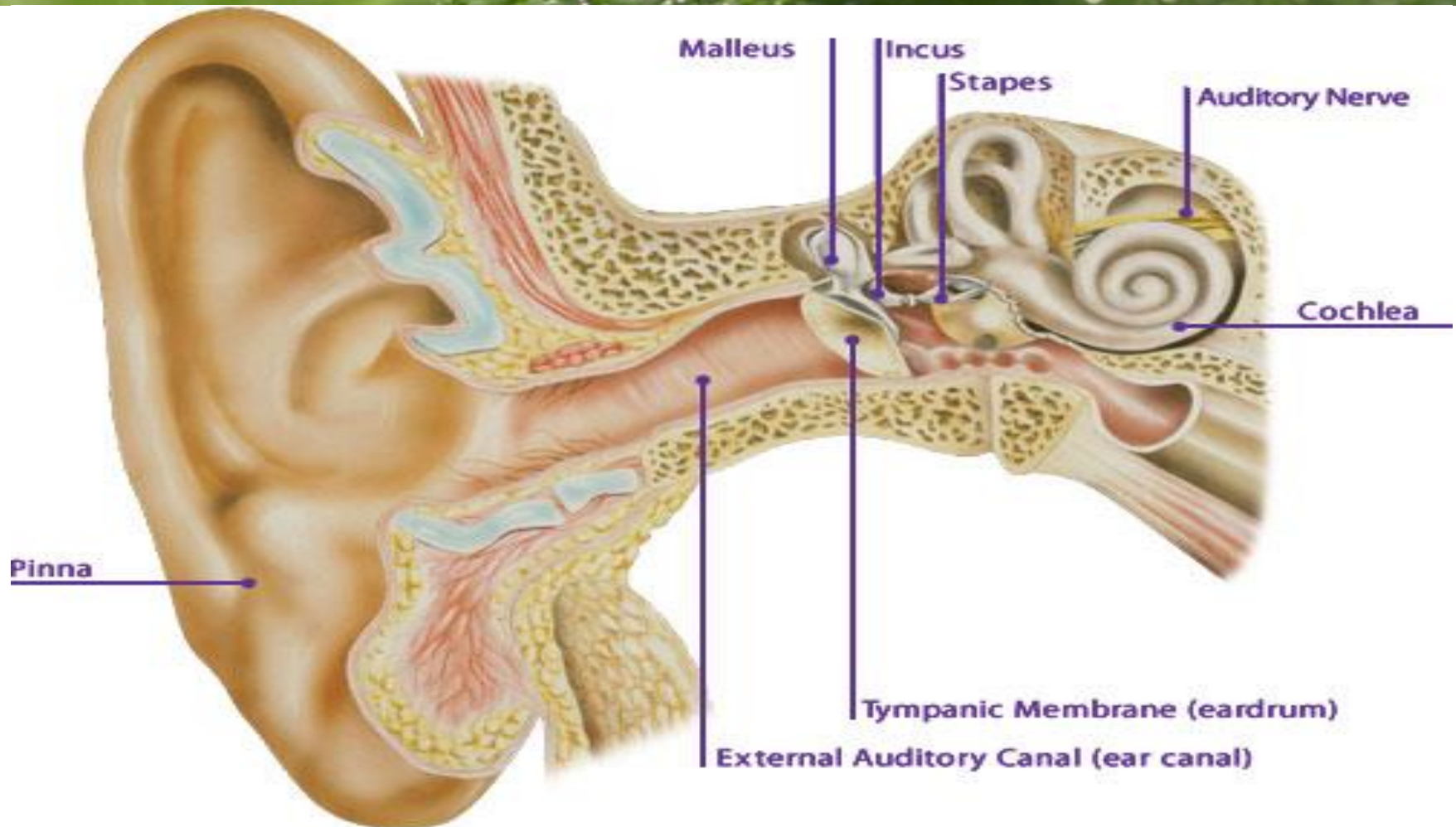
1. Sel conus :

- Peka cahaya.
- Membedakan warna merah, hijau & biru.

2. Sel basilus

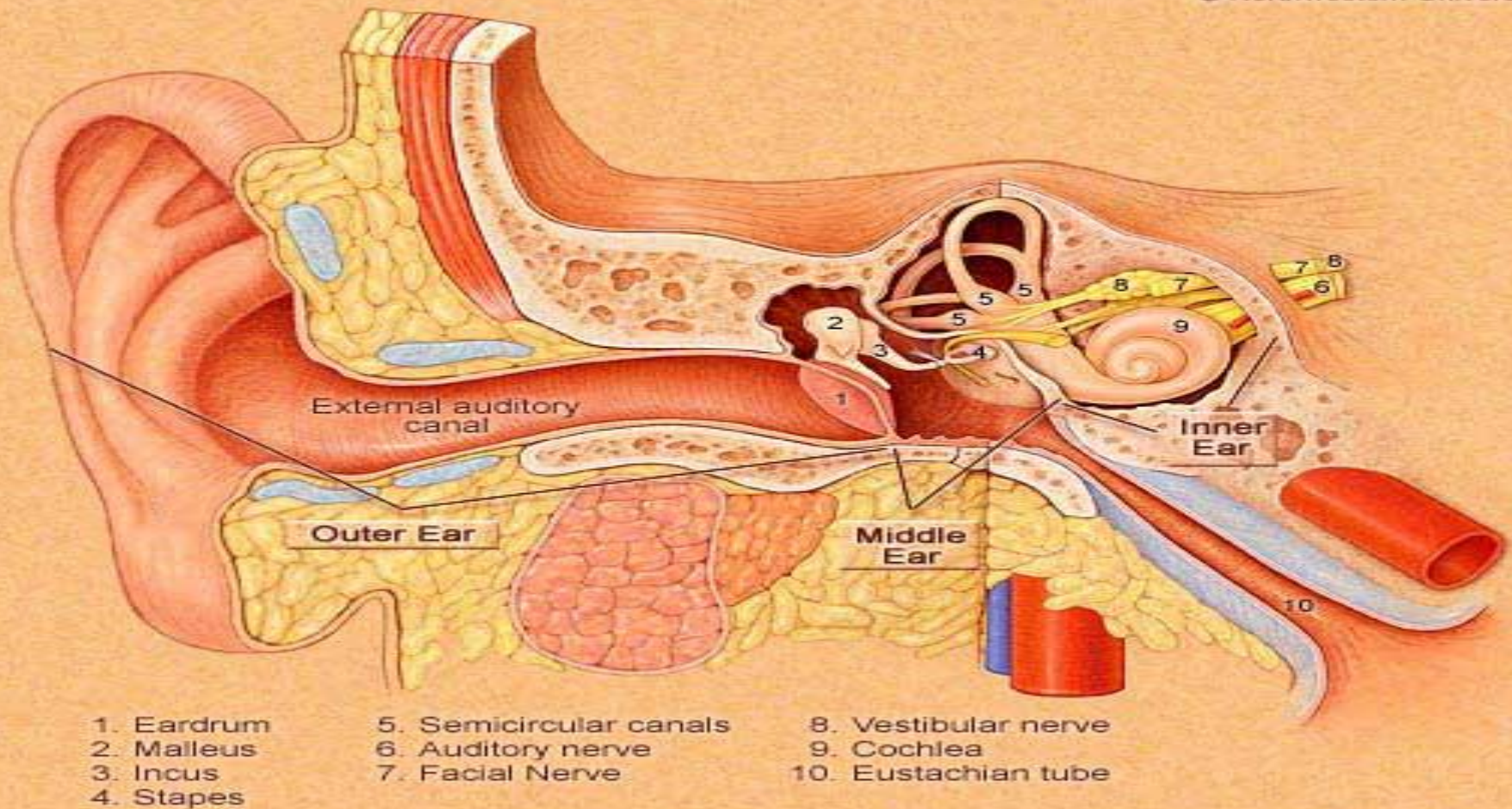
- Peka gelap.
- Tidak dapat membedakan warna

INDRA PENDENGARAN : ANATOMI TELINGA

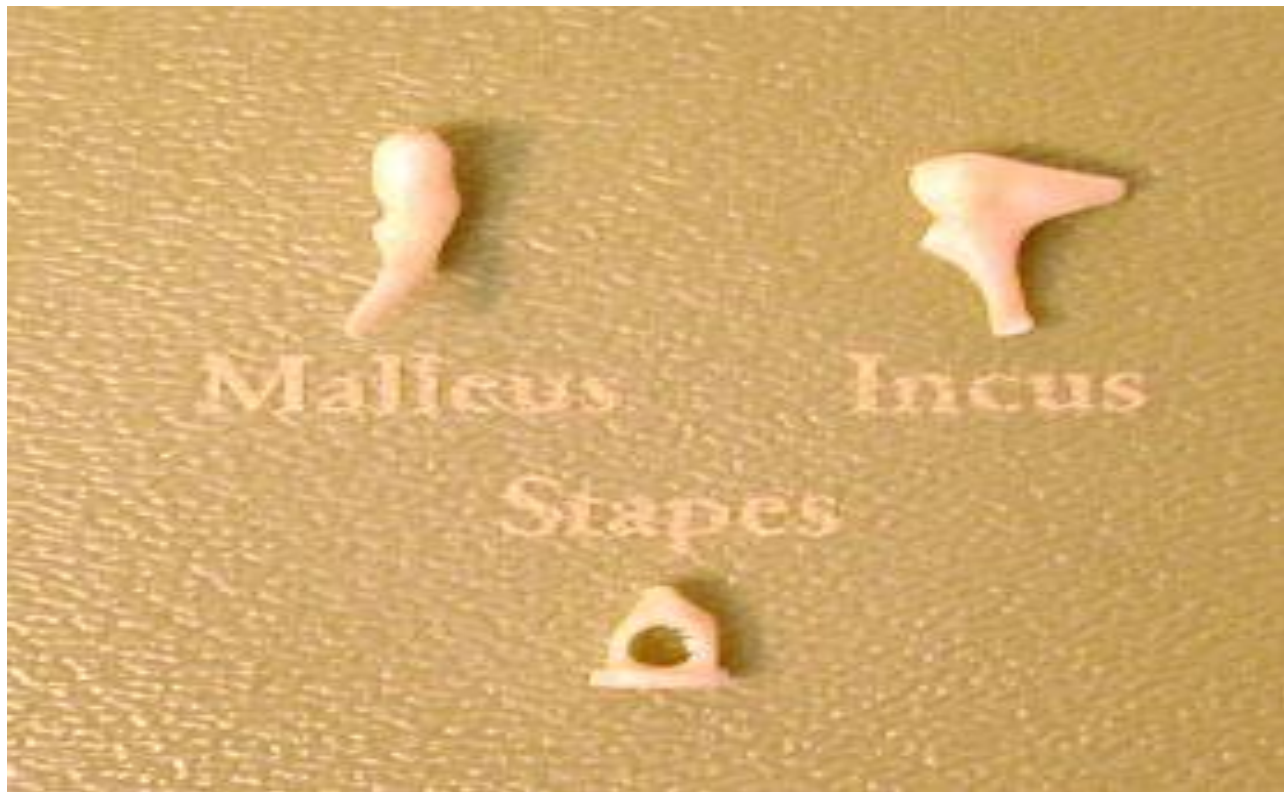


INDRA PENDENGARAN : ANATOMI TELINGA

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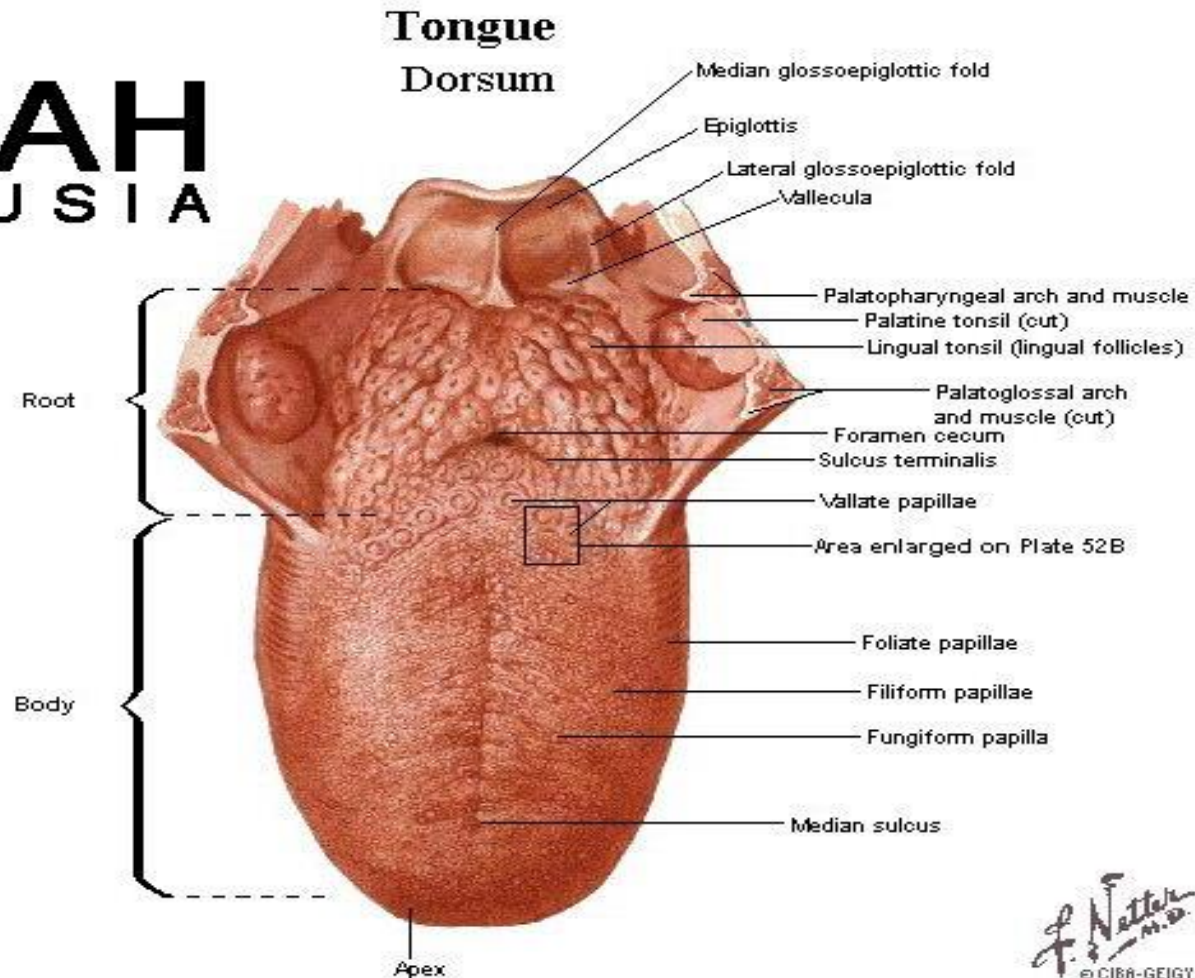


INDRA PENDENGARAN : TULANG TELINGA



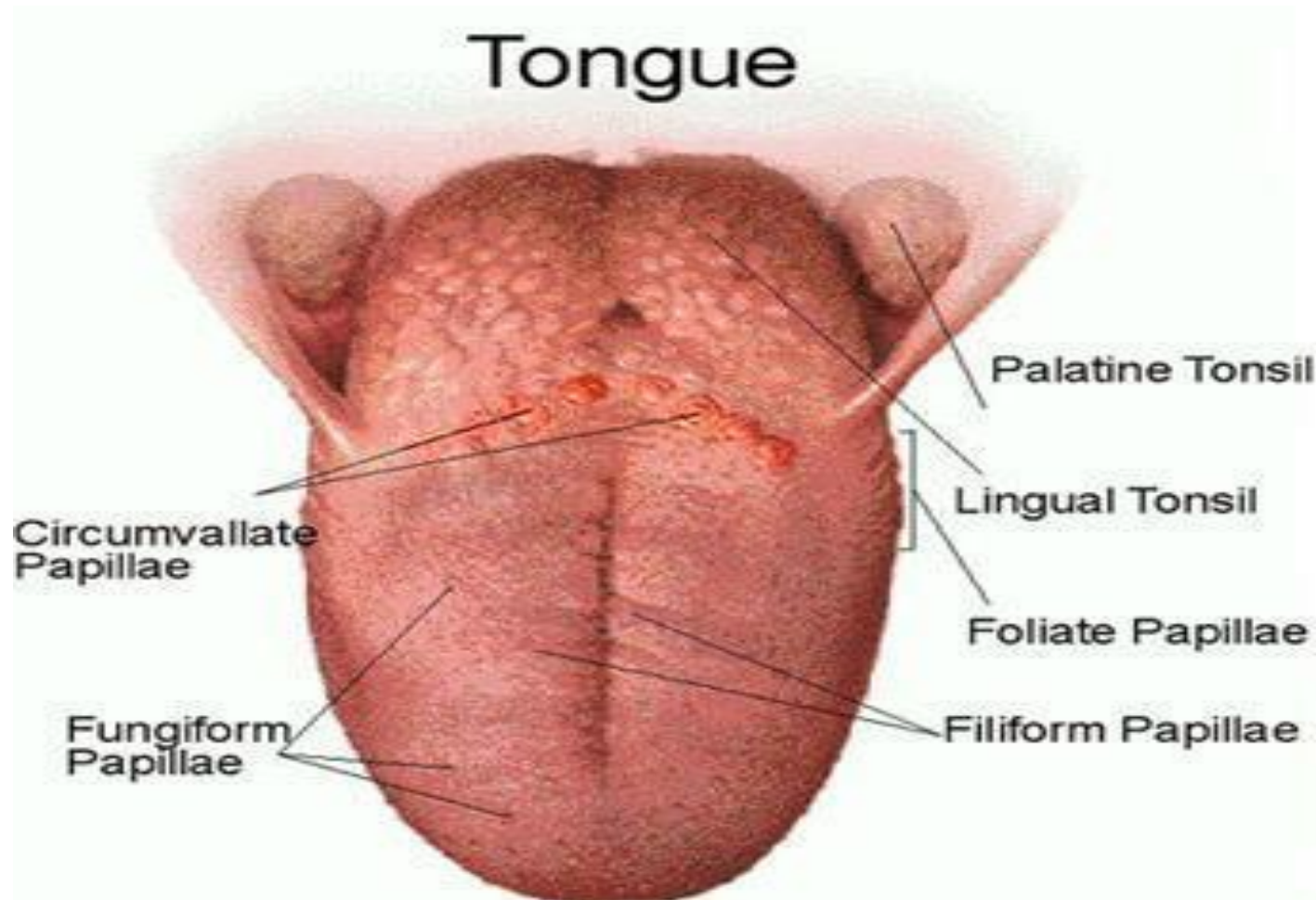
INDRA PENGECAP : MORFOLOGI LIDAH

LIDAH MANUSIA

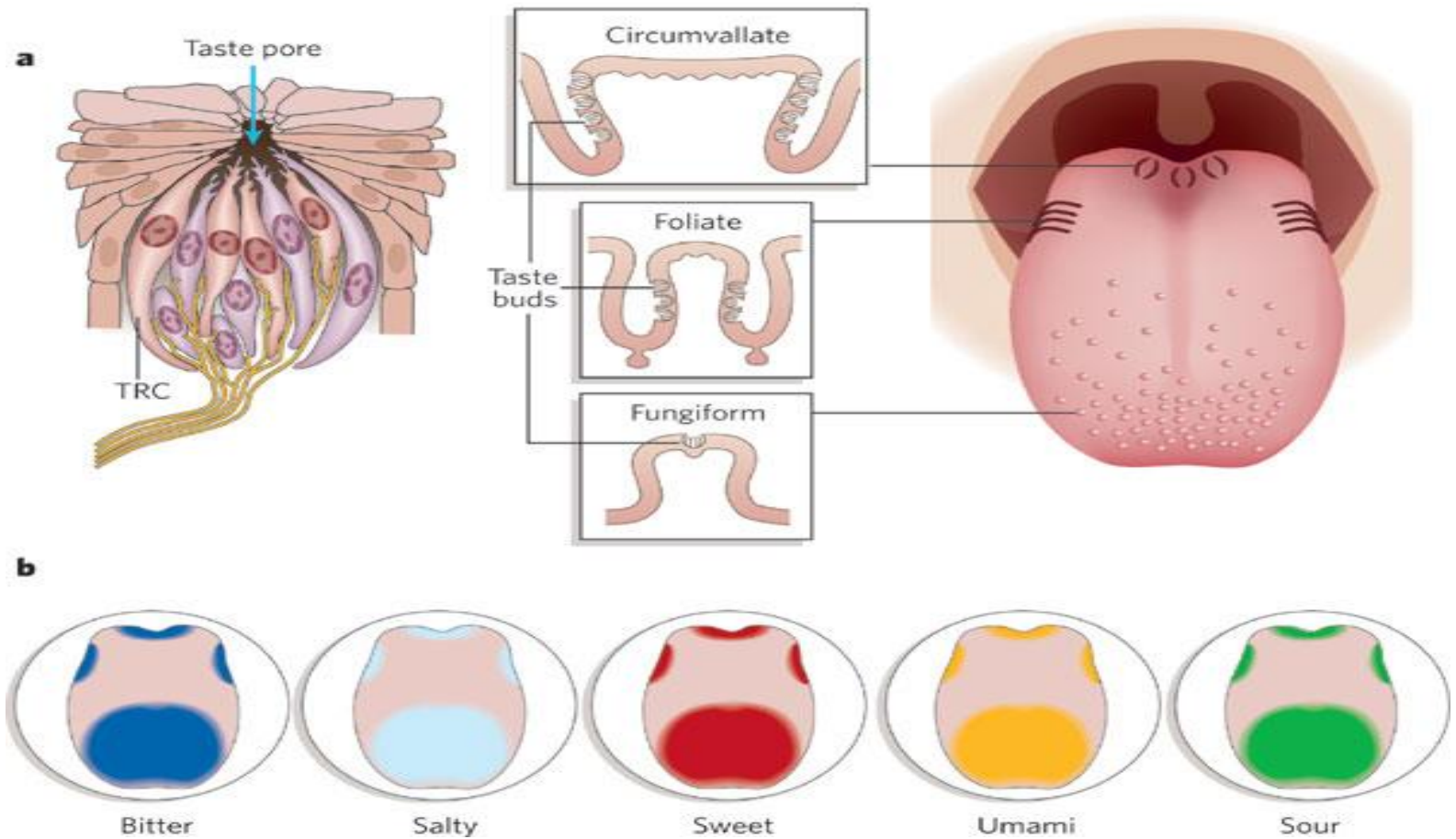


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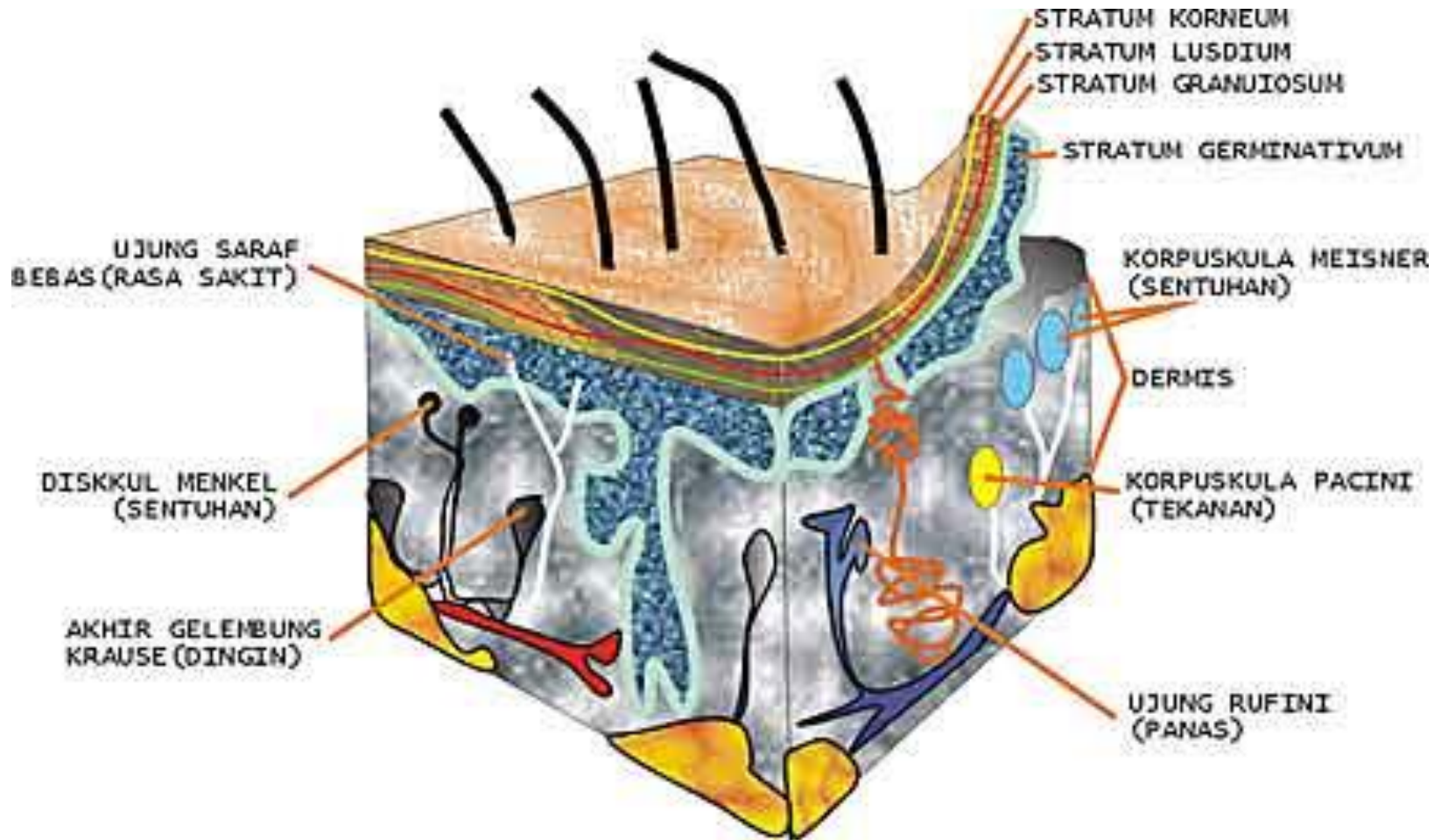
INDRA PENGECAP : MACAM PAPILA LIDAH



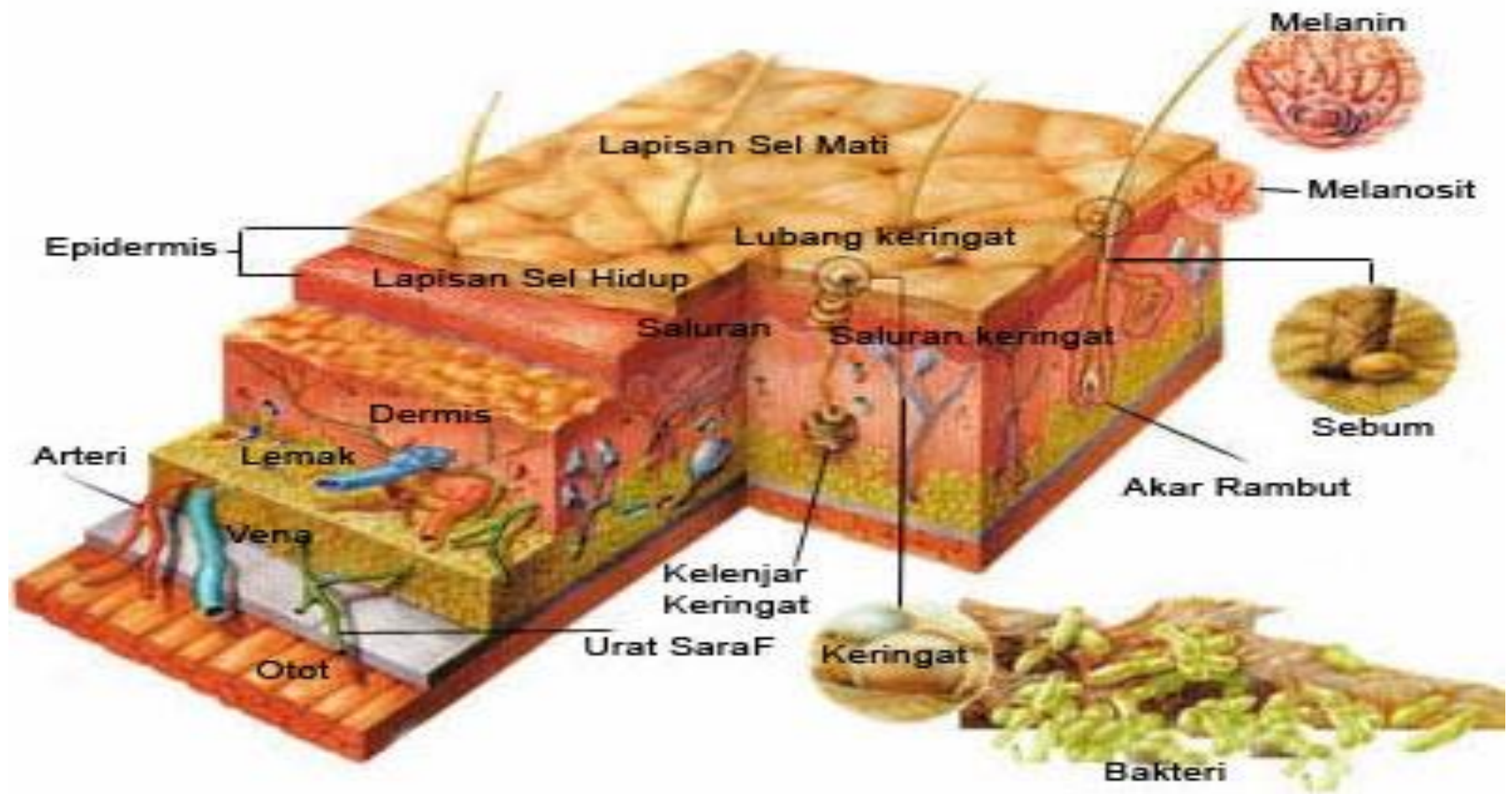
INDRA PENGECAP : AREA RASA LIDAH



INDRA PERABA : ANATOMI KULIT :

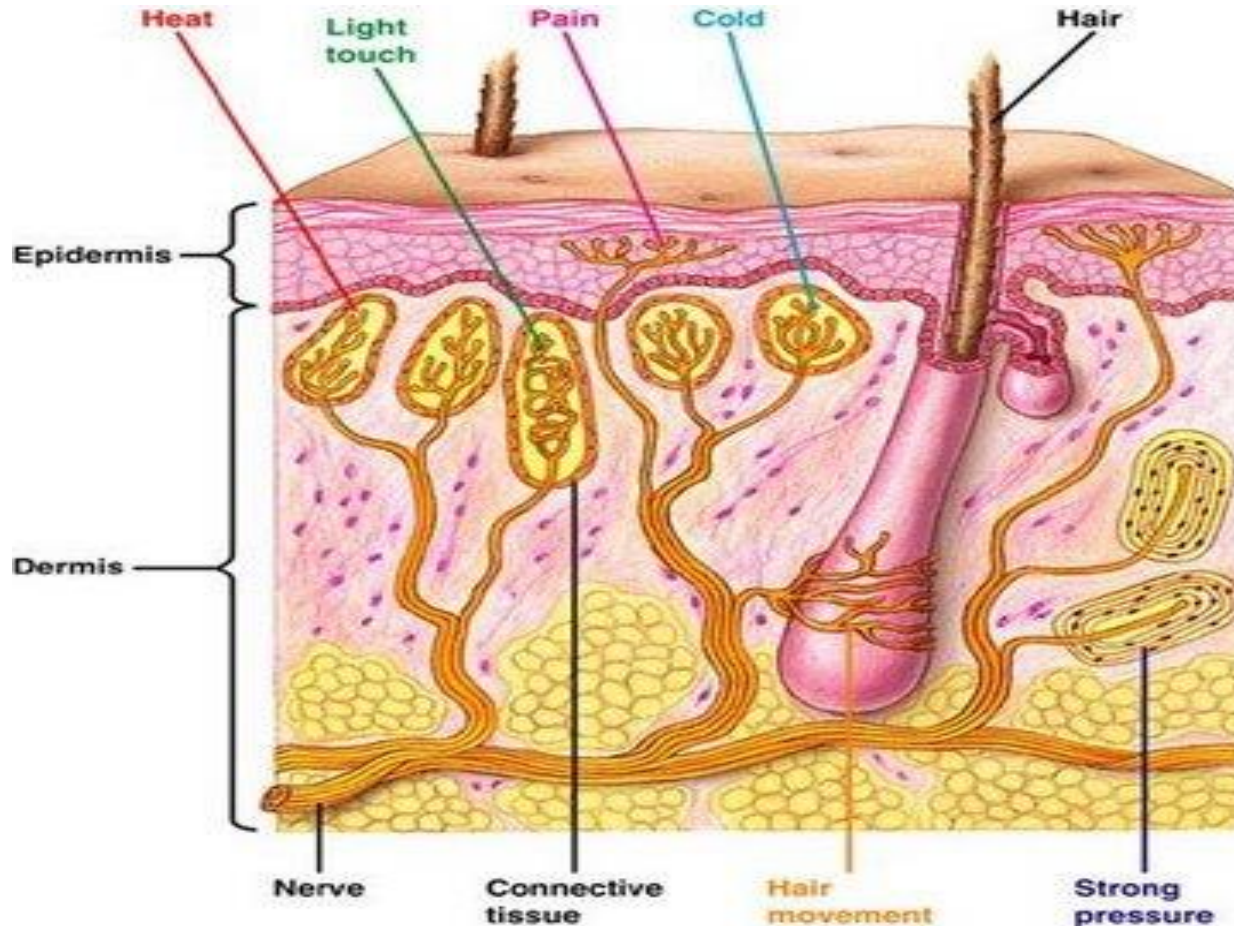


INDRA PERABA : MORFOLOGI KULIT



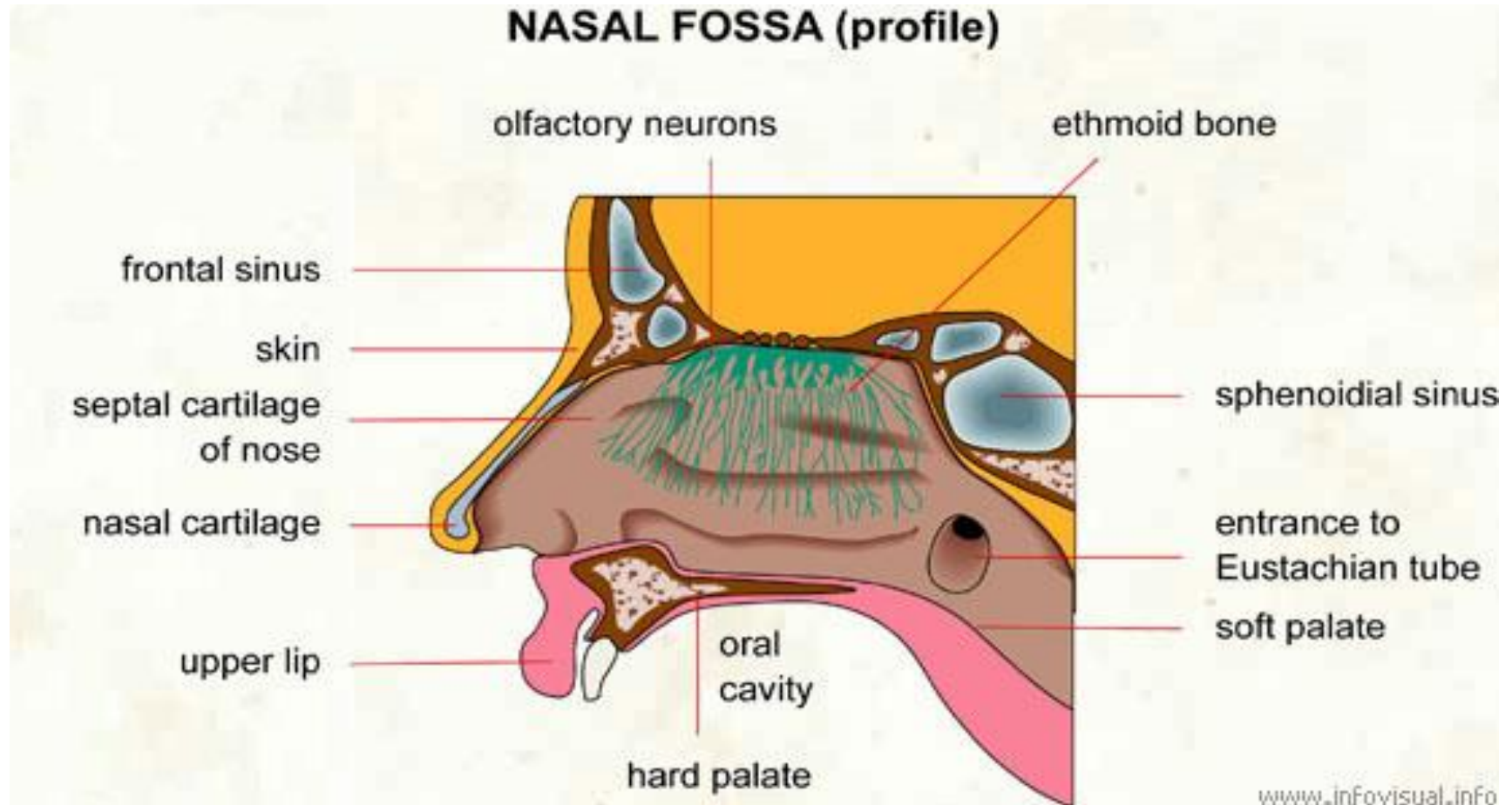
INDRA PERABA : SARAF KULIT

Sumber : <http://3.bp.blogspot.com>



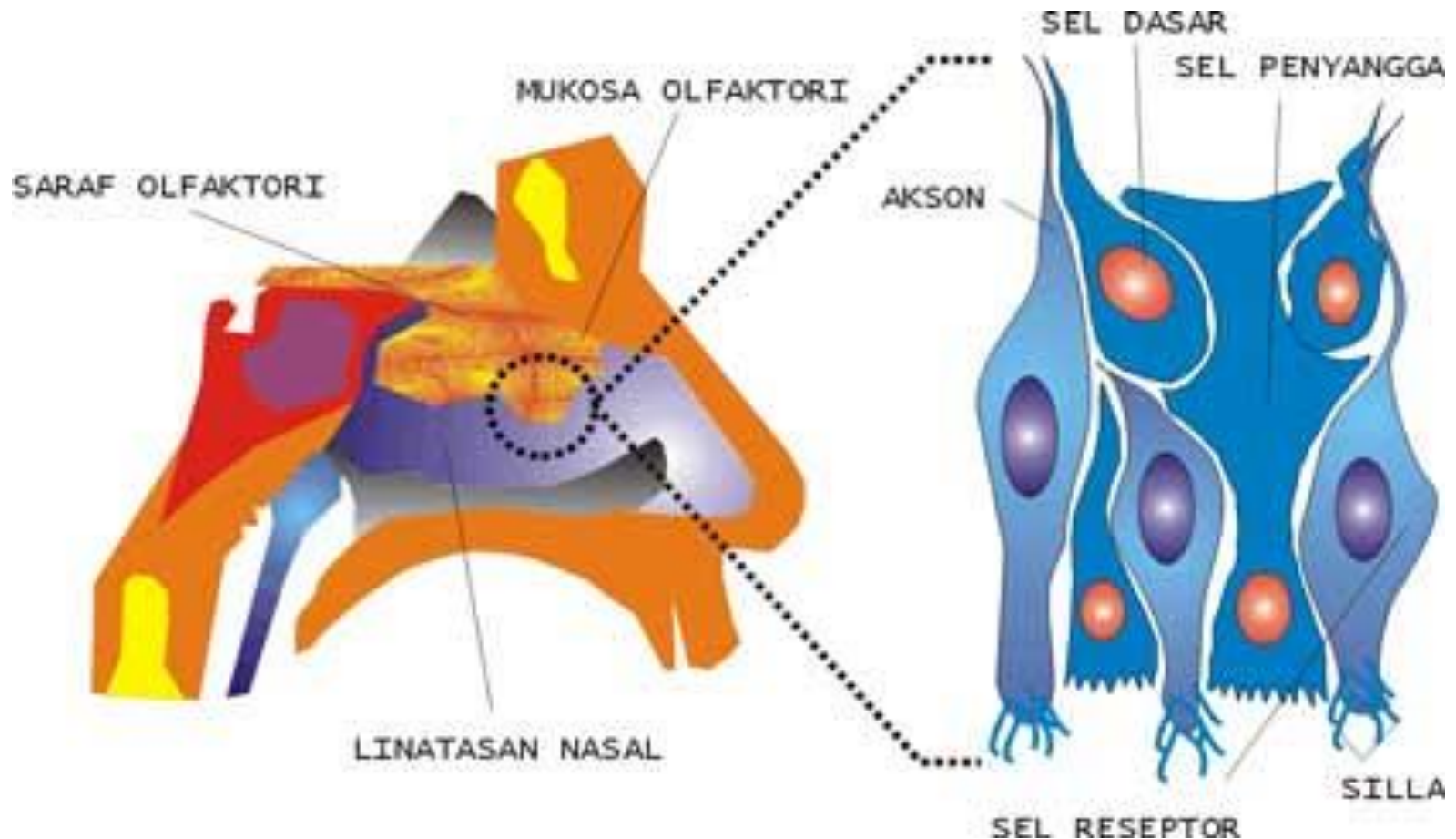
INDRA PENCILUMAN : ANATOMI HIDUNG

Sumber : http://www.infovisual.info/03/052_en.html



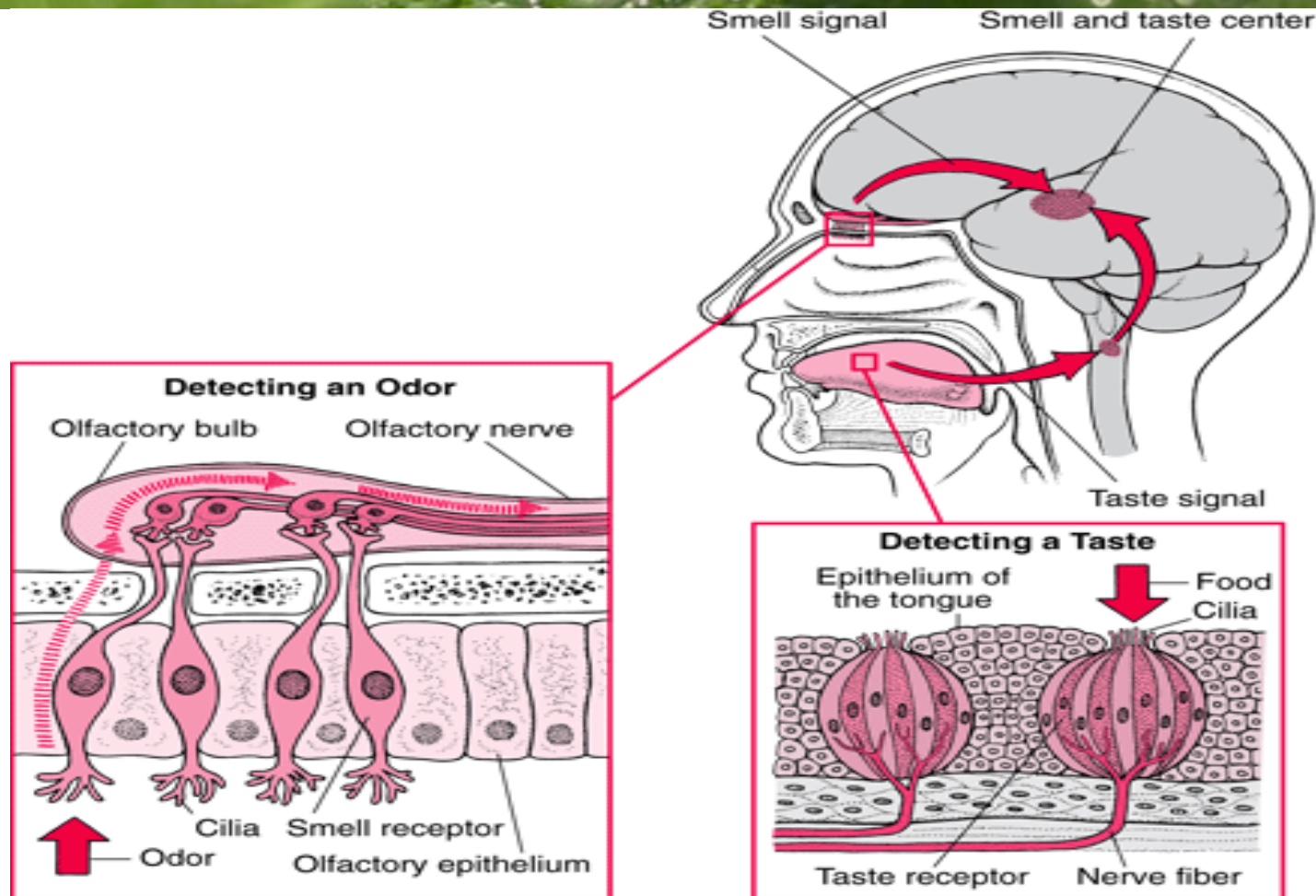
INDRA PENCIUMAN : SARAF PENCIUMAN

Sumber : <http://kambing.ui.ac.id/bebas/v12/sponsor>



INDRA PENCILUMAN : PROSES PENCILUMAN

Sumber : <http://www.merck.com/mmhe/sec19/ch221/ch221j.html>



MEKANISME MELIHAT

**Cahaya (impuls) → lapisan
konjungtiva → kornea mata →
aqueous humour → iris → pupil →
lensa mata → vitreous humour →
fovea → saraf sensorik optic (saraf
cranial nomor II) → persepsi melihat.**

MEKANISME MENDENGAR

Getaran/bunyi (impuls) → pinna → externa auditory canal → membrana tympani → tl. martil (os. malleus) → tl. landasan (os. incus) → tl. sanggurdi (os. stapes) → tingkap bulat → cairan pada koklea bergetar → saraf sensorik auditory/vestibulokoklear (saraf cranial nomor VIII) → persepsi mendengar suara

MEKANISME MEMBAU

Zat kimia berupa gas (impuls) → saluran hidung → larut pada selaput mukosa → silia sel reseptor → saraf sensorik olfactory (saraf cranial nomor I) → persepsi membau.

MEKANISME MENGECAP

Zat kimia (impuls) → air liur lidah → papila lidah → kuncup pengecap → saraf sensorik facial & sensorik glosofaring (saraf cranial nomor VII & IX) → persepsi mengecap rasa.

MEKANISME SENSASI PADA INTEGUMEN

**Suhu, tekanan, sentuhan, luka
(impuls) → epidermis integumen →
dermis integumen → saraf khusus
pada dermis integumen →
hypodermis integumen → cerebrum
pada lobus parietal → presepsi
sensasi pada kulit.**

Grazie



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