

ШКІРА КОЖА SKIN

Луганский государственный медицинский университет

Луганський державний медичний університет

Lugansk state medical university

Кафедра гістології, цитології та ембріології

Кафедра гистологии, цитологии и эмбриологии

Chair of histology, cytology and embryology

**ШКІРА,
SKIN, КОЖА**

**Будова,
structure, строение**

**Похідні,
derivatives, производные**

**Епідерміс,
epidermis,
эпидермис**

**Дерма,
dermis,
дерма**

**Гіподерма,
hypodermis,
гиподерма**

**Волосся,
hair,
ВОЛОСЫ**

**Залози,
glands,
железы**

**Нігті,
nails, ногти**

- 1. Базальний шар, stratum basale, базальний слой.
- 2. Остистий шар, stratum spinosum, остистий слой.
- 3. Зернистий шар, stratum granulosum, зернисты слой.
- 4. Блискучий шар, stratum lucidum, блестящий слой.
- 5. Роговий шар, stratum corneum, роговой слой.

- 1. Сосочковий шар, papillary layer, сосочковый слой.
- 2. Сітчастий шар, reticular layer, сетчатый слой

**Довге,
long,
длинные.**

**Щетинкове,
bristly,
щетинистые.**

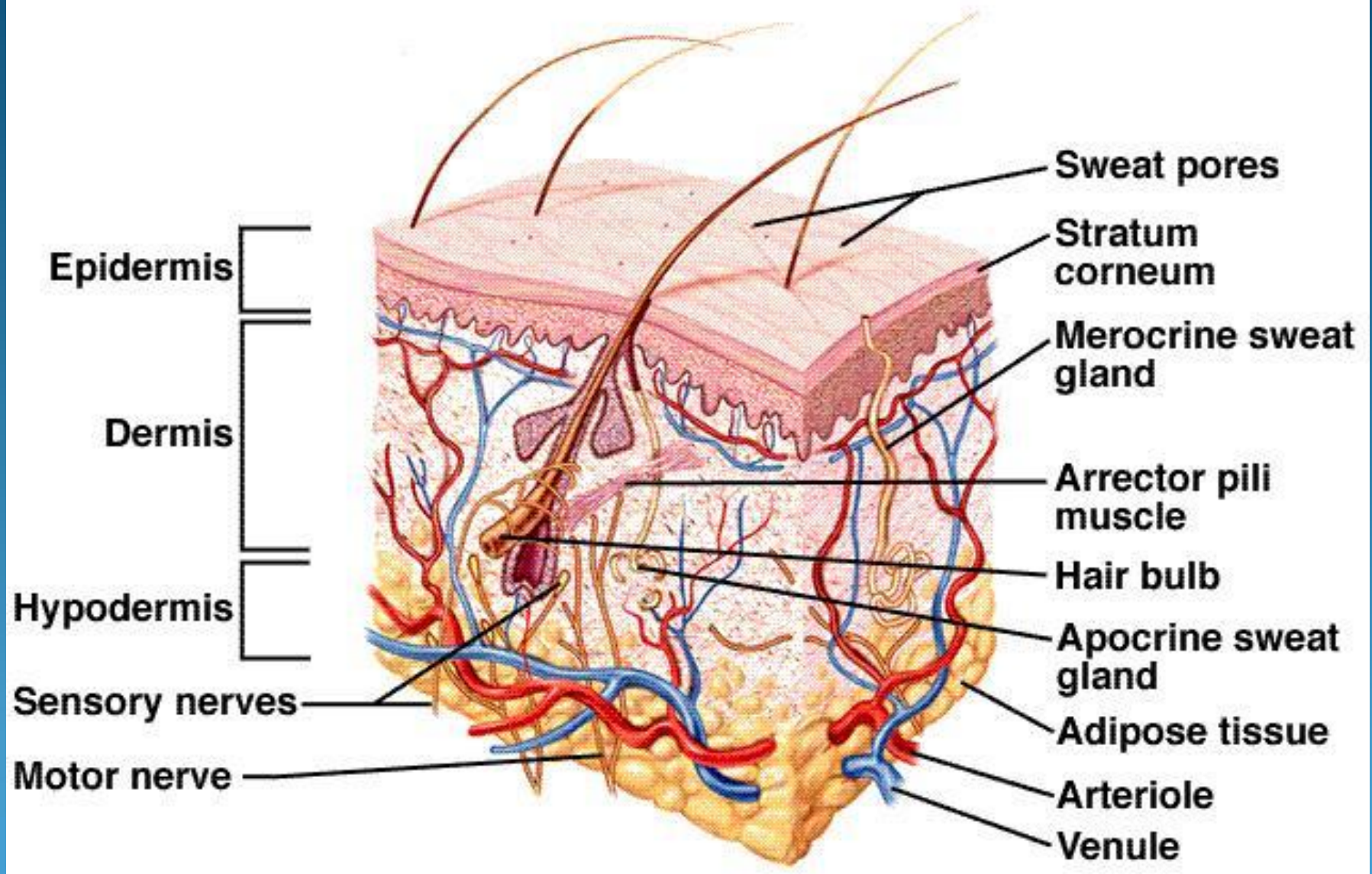
**Пушкове,
lanugo,
пушковыє.**

**Потові,
sweat,
потовые .**

**Сальні,
sebaceous,
сальные.**

**Молочні,
mammary,
молочные.**

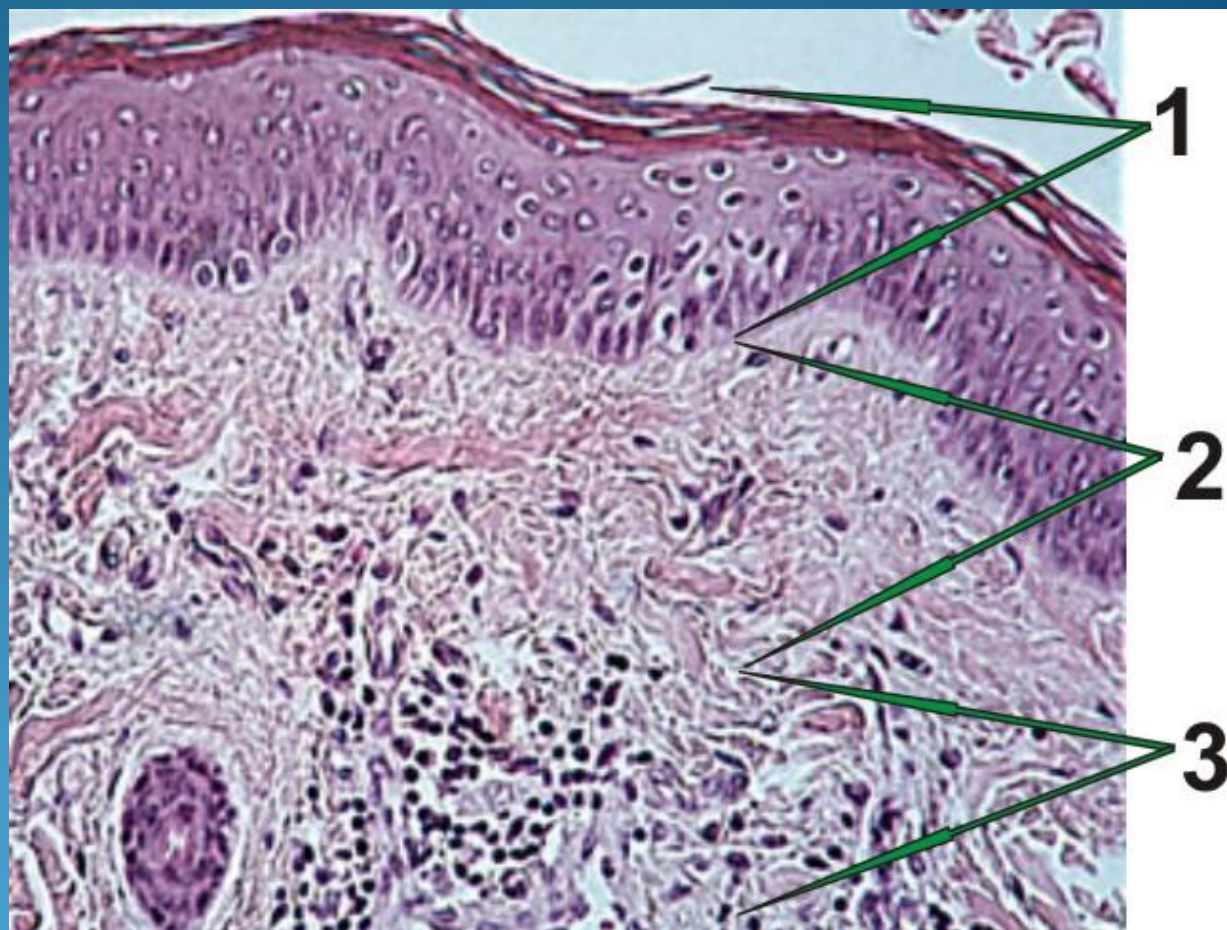
Skin Structure — Overview



1. Епідерміс,
epidermis,
эпидермис.

2. Дерма, dermis,
дерма

3. Гіподерма,
hypodermis,
гиподерма

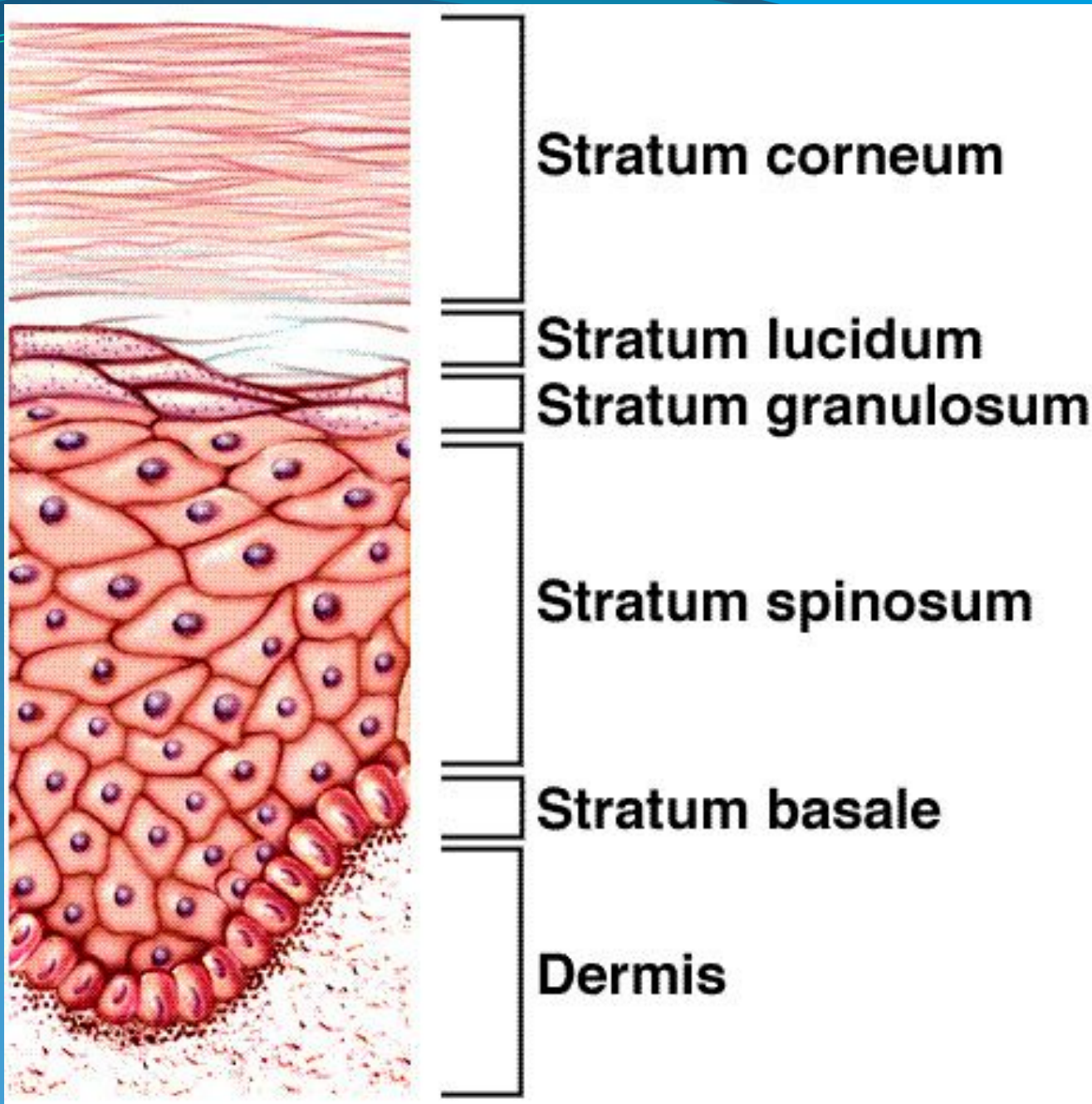


1. Епідерміс,
epidermis,
эпидермис.

2. Дерма, dermis,
дерма

3. Гіподерма,
hypodermis,
гиподерма





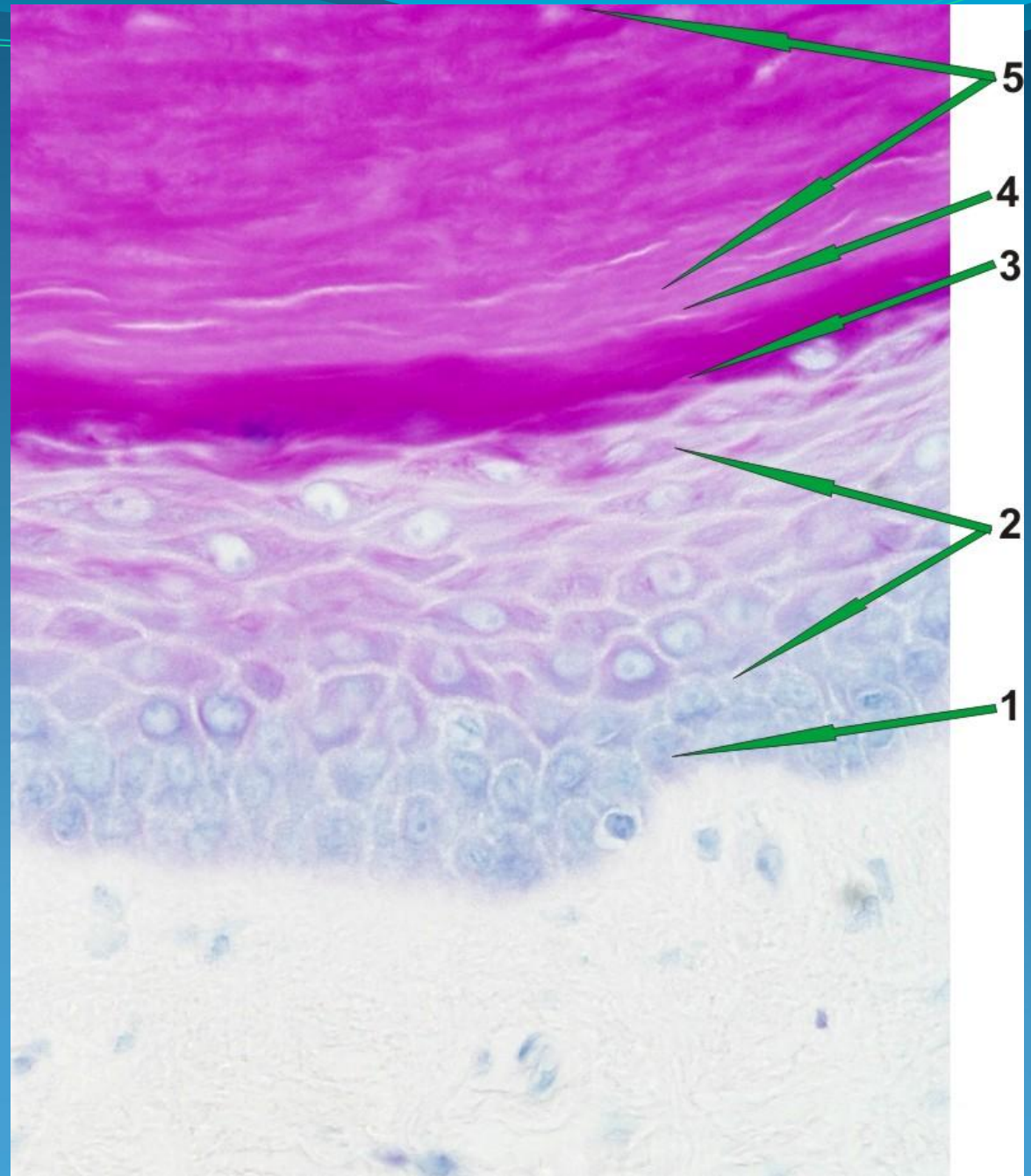
1. Базальный шар,
stratum basale,
базальный слой.

2. Шипуватий шар,
stratum spinosum,
шиповатый слой.

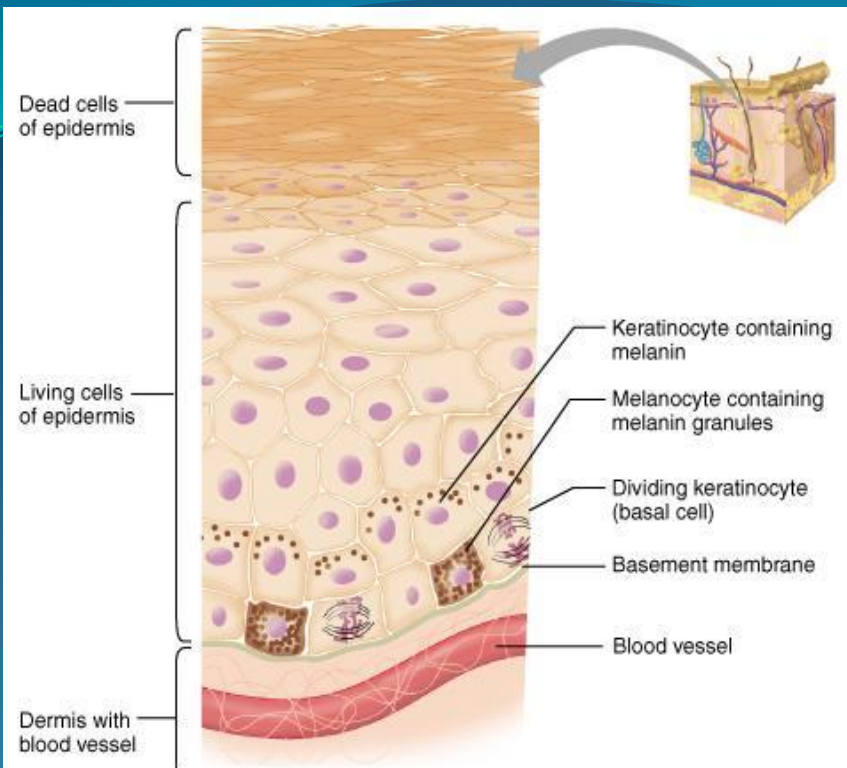
3. Зернистий шар,
stratum granulosum,
зернистый слой.

4. Блискучий шар,
stratum lucidum,
блестящий слой.

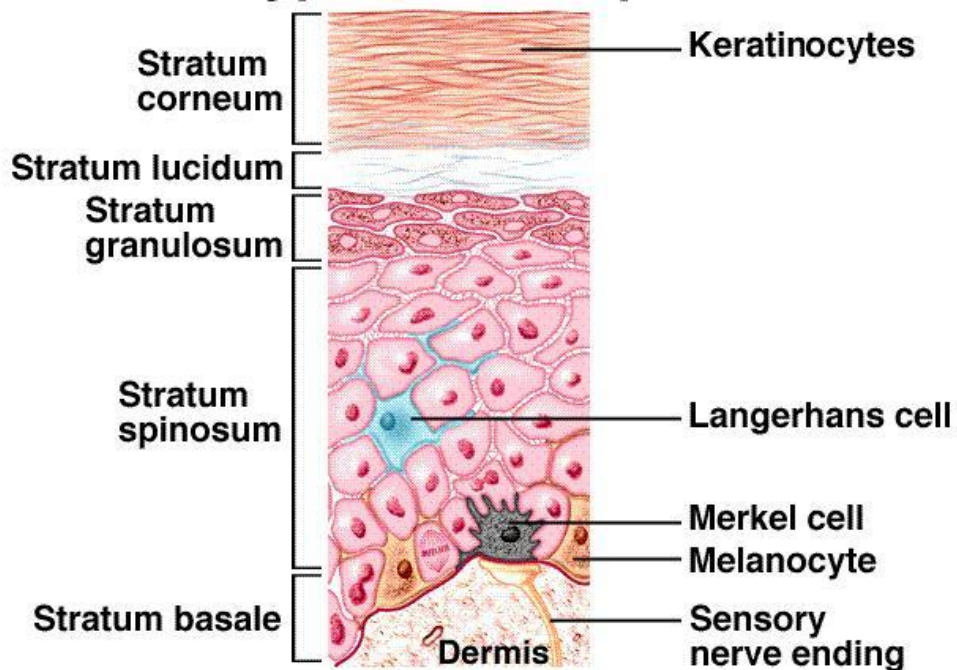
5. Роговий шар,
stratum corneum,
роговой слой.



ЛИКПА КОЖА SKIN

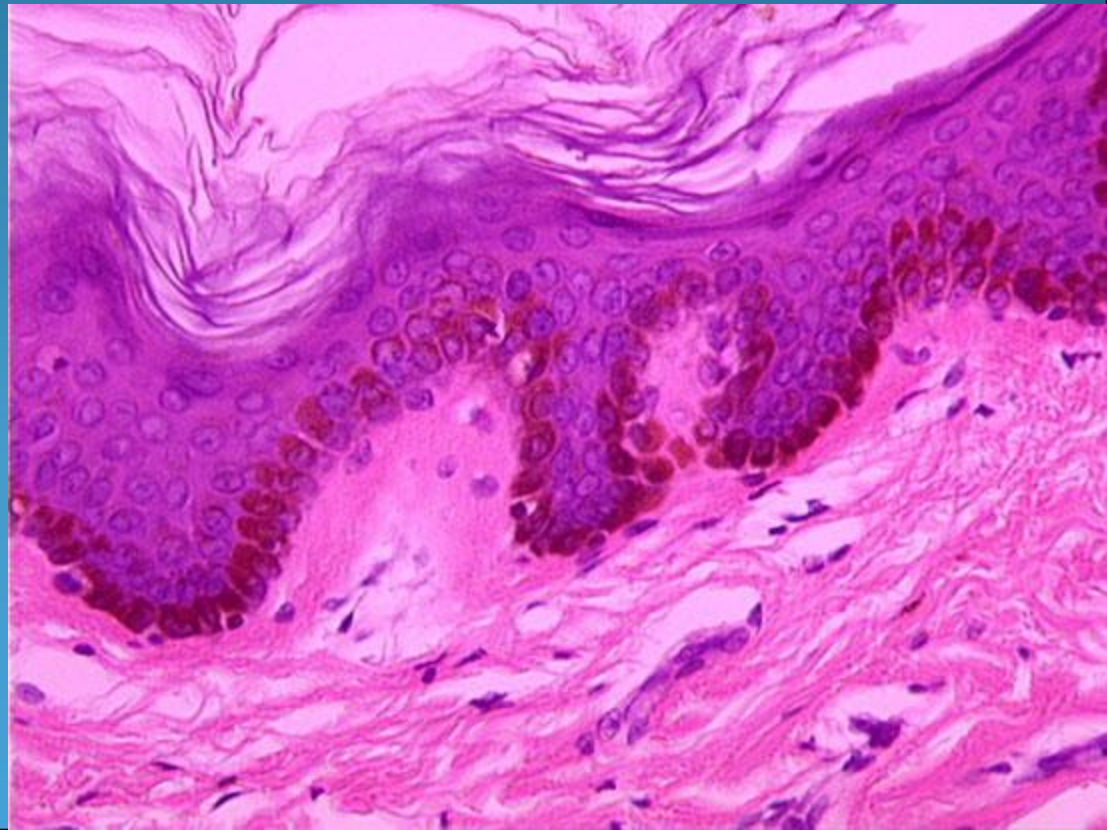
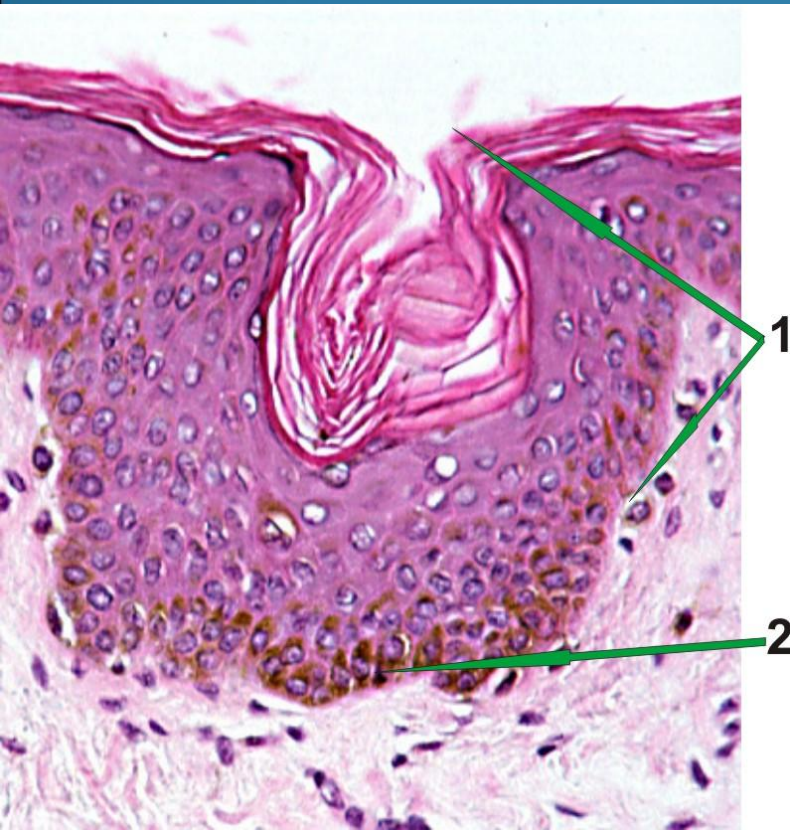


Cell Types of the Epidermis



1. Епідерміс, epidermis, эпидермис.

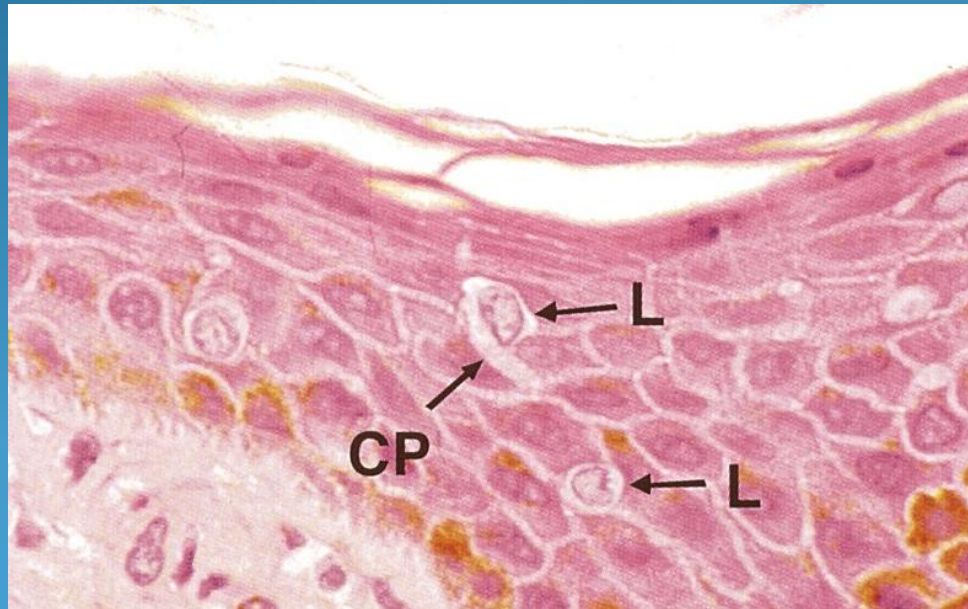
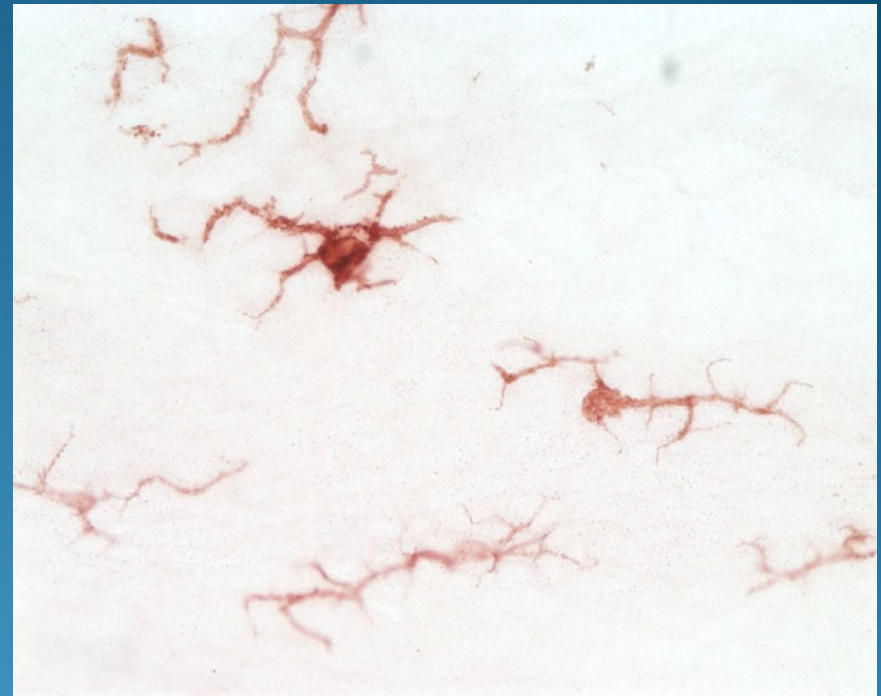
2. Пігментні клітини в епідермісі, pigment cells in the epidermis, пигментные клетки в эпидермисе.

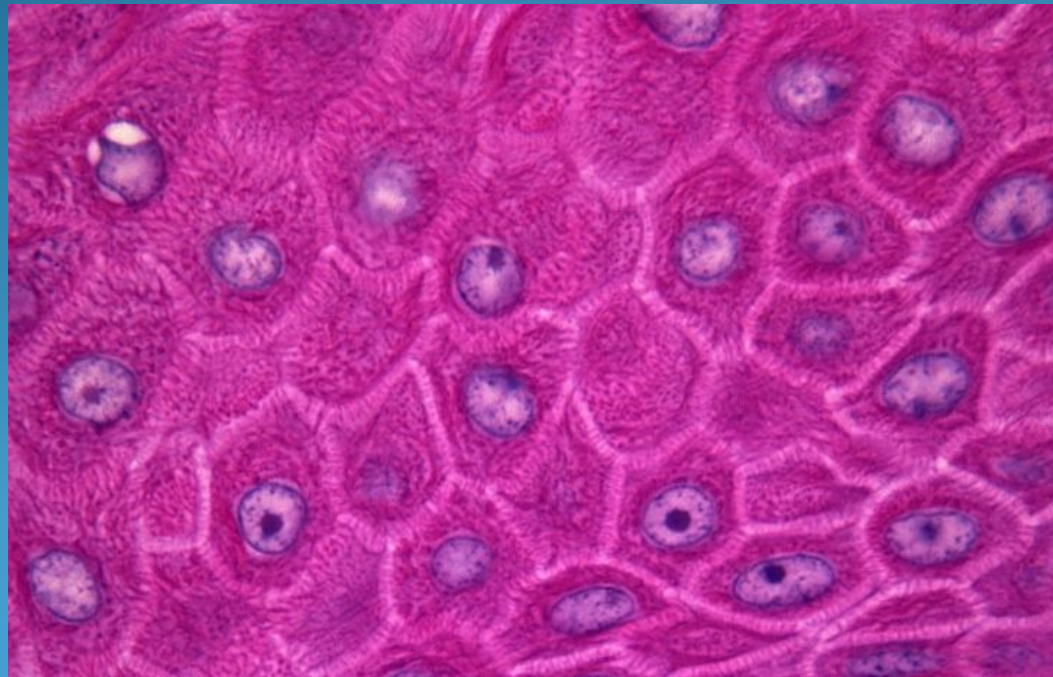
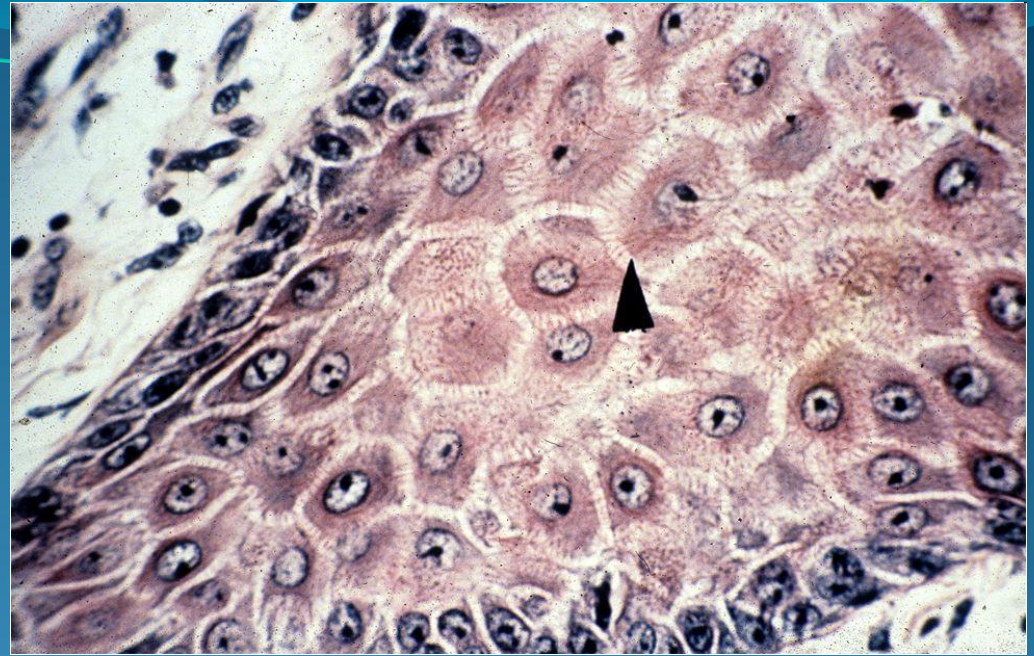


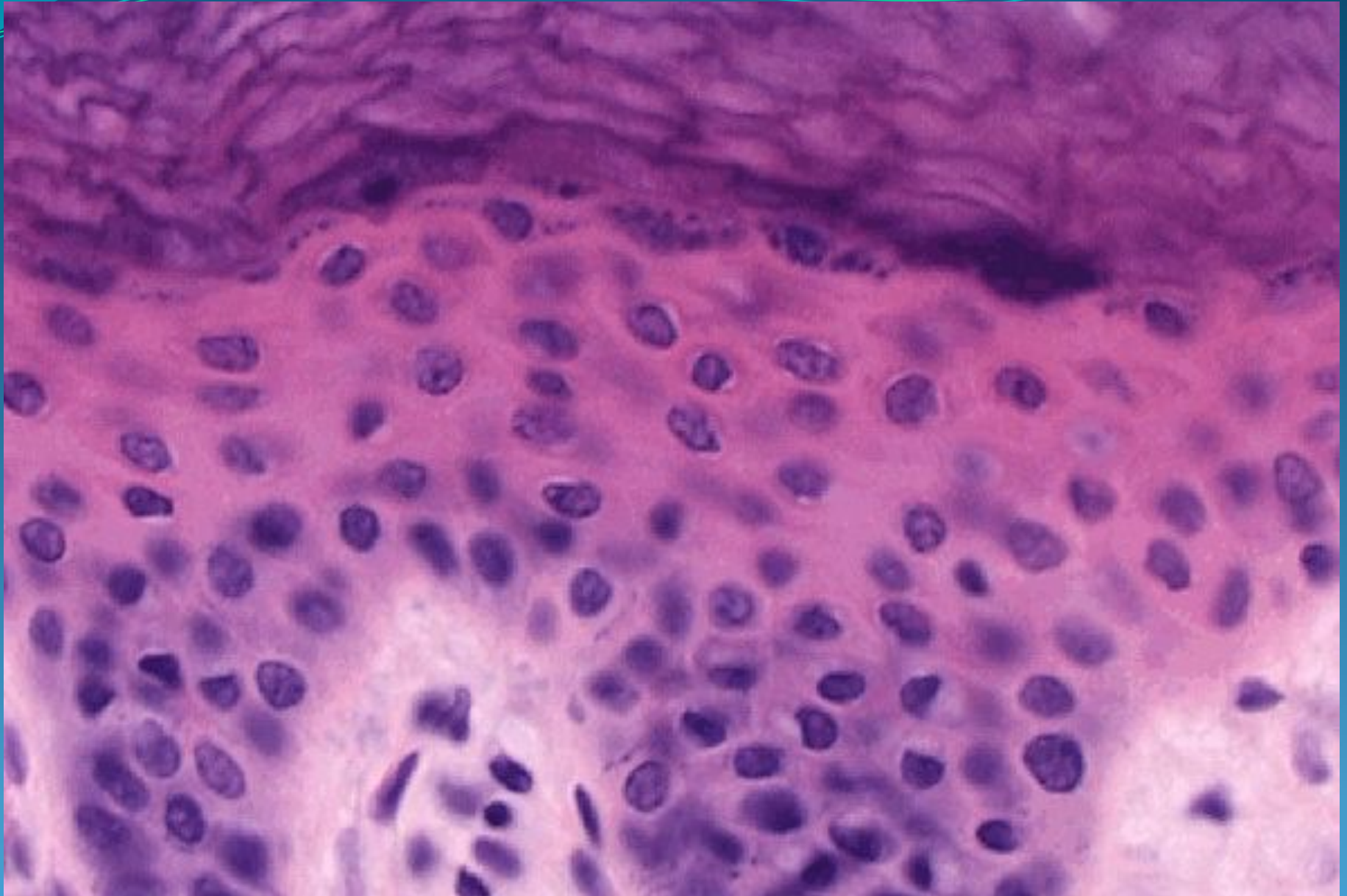
Melanocyte



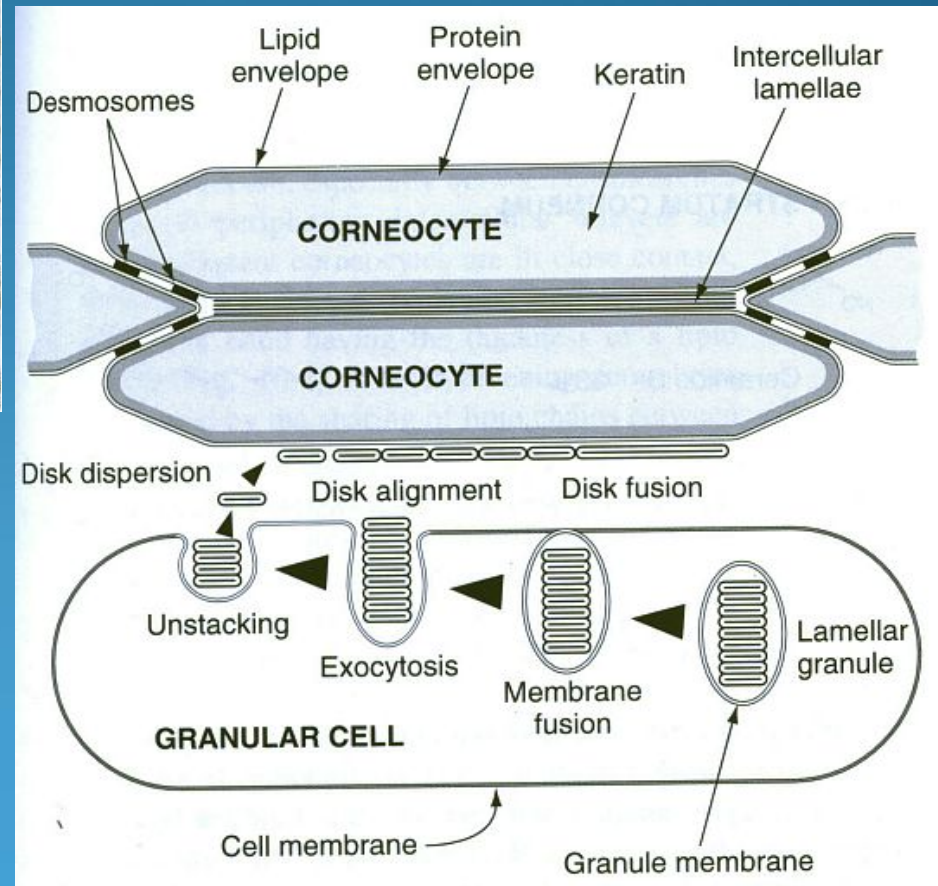
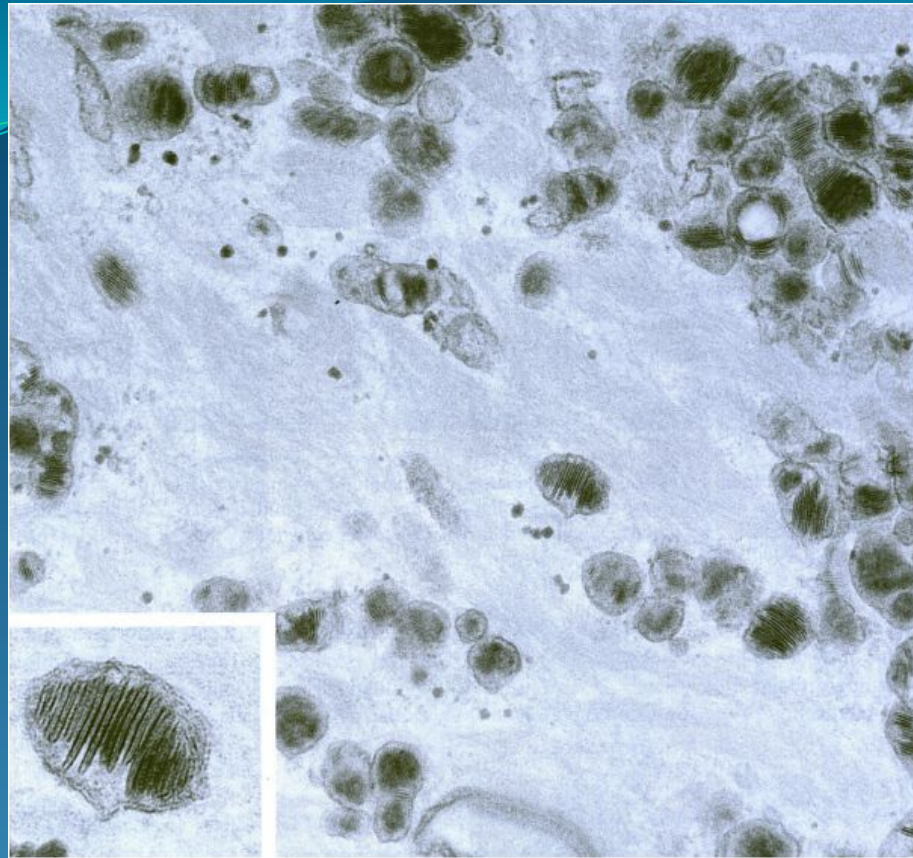
Langerhans' cells



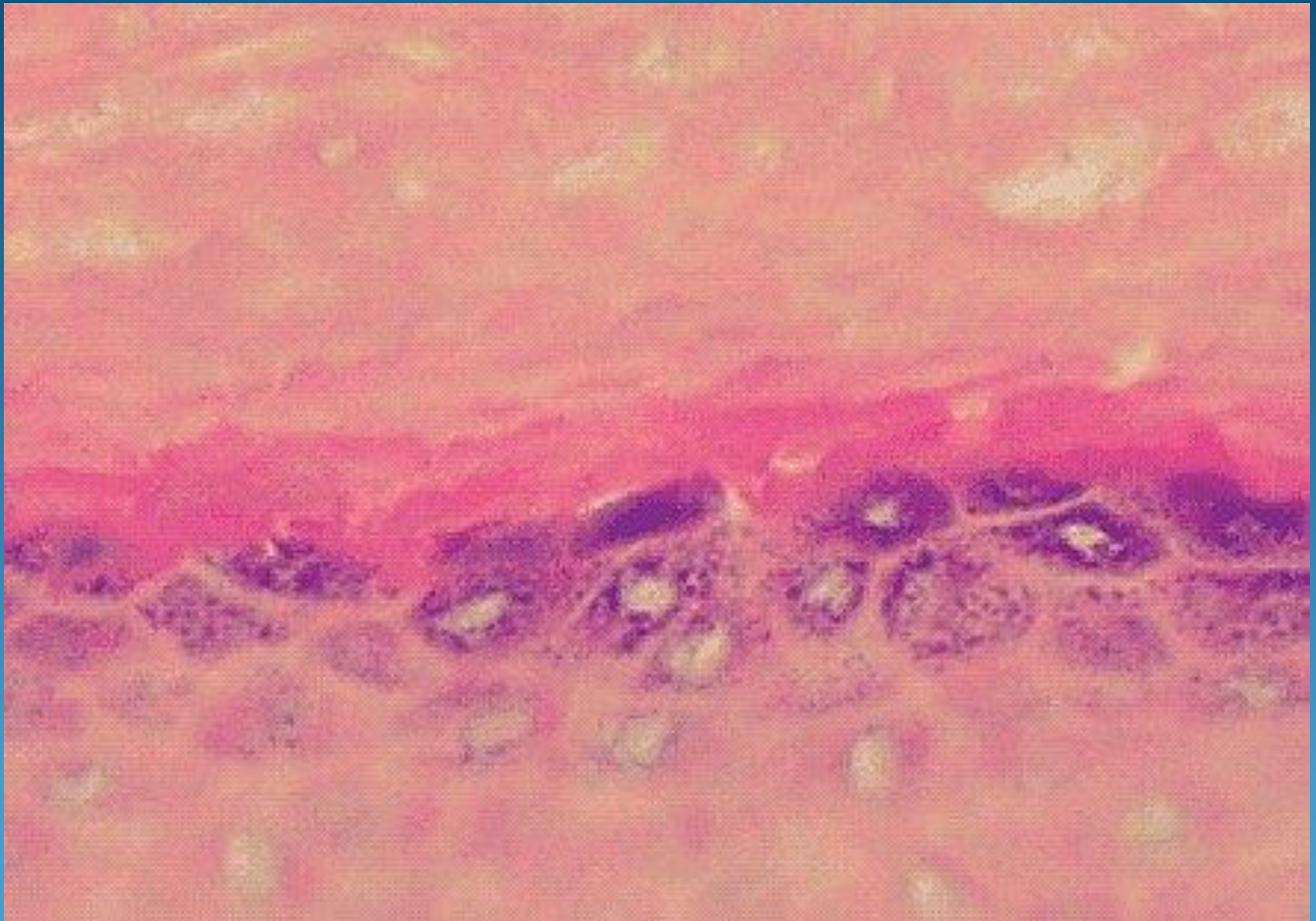




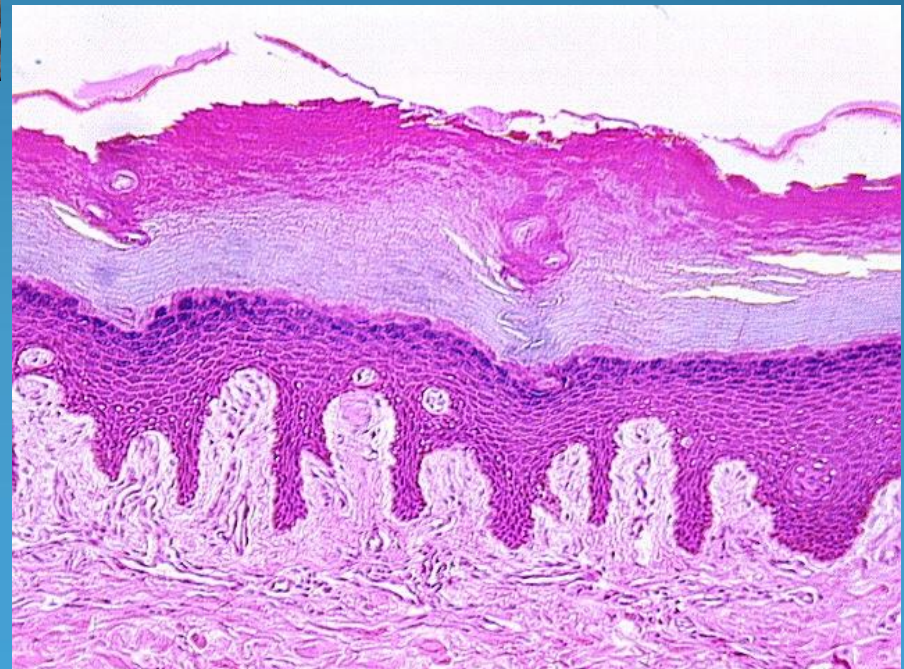
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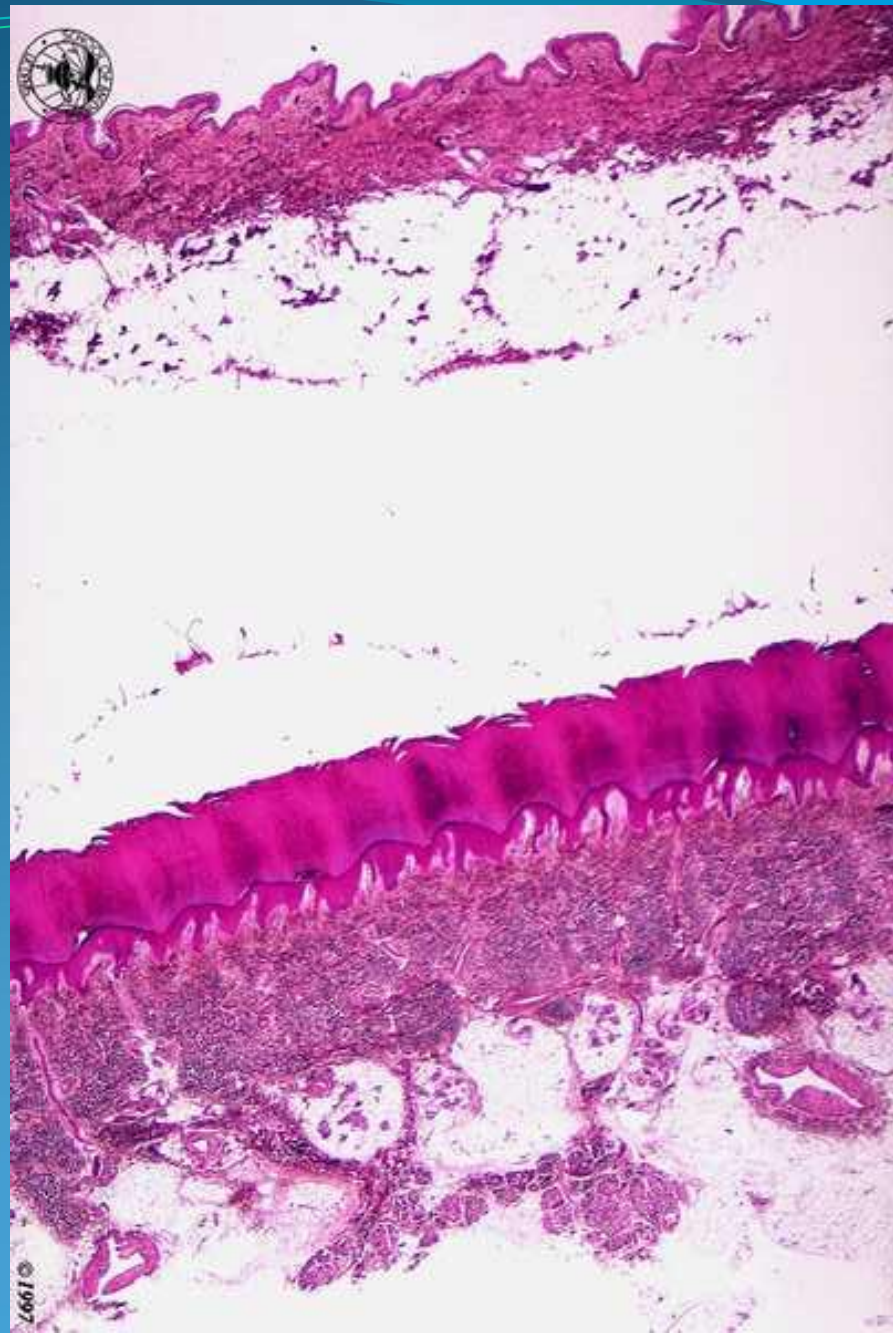


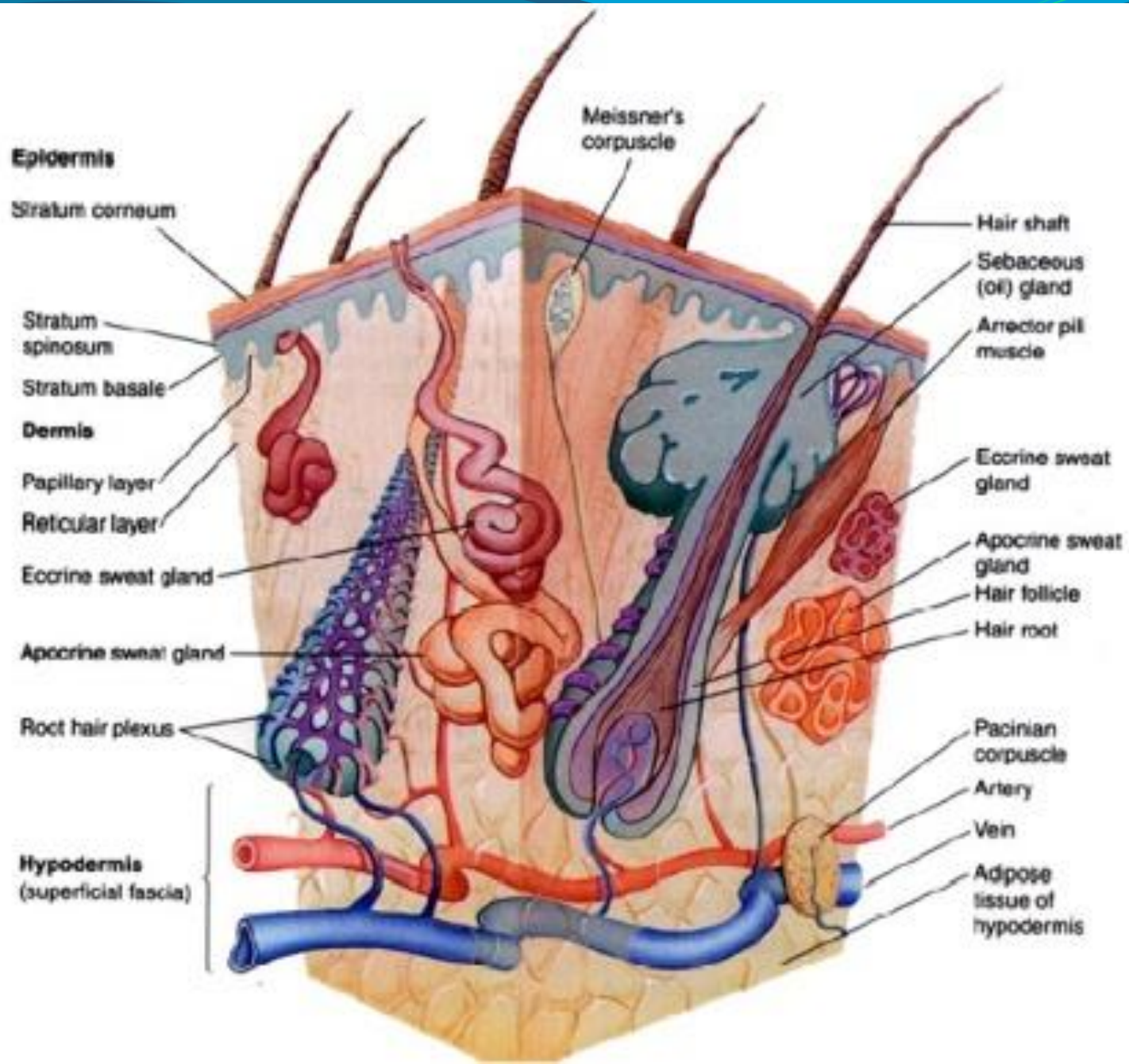
Stratum lucidum



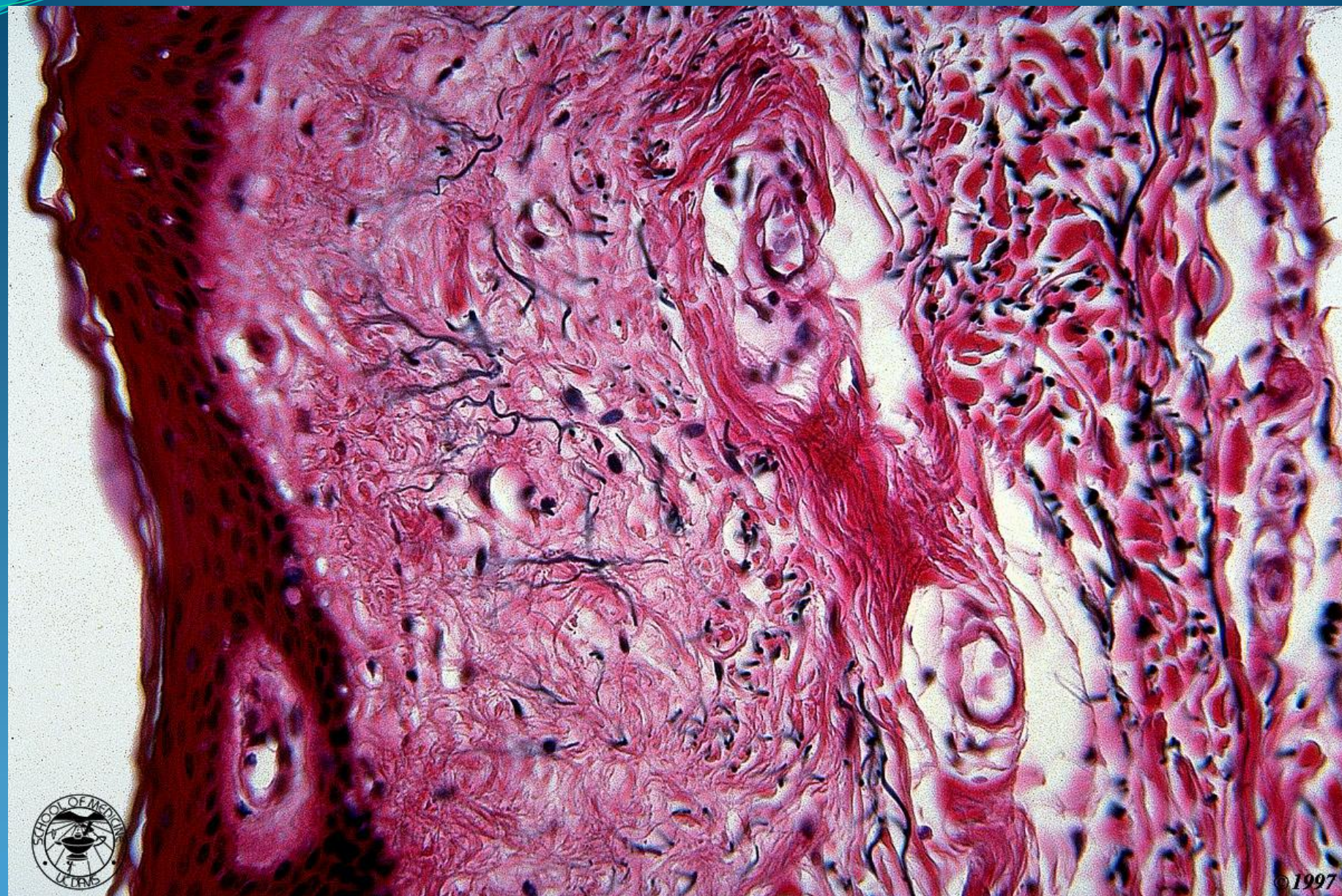
Stratum corneum







Papillary and reticular layer



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Medulla (M)

Cortex (Cx)

Cuticle (Cu)

Connective Tissue (CT)

Dermal Papilla (DP) or Hair Papilla

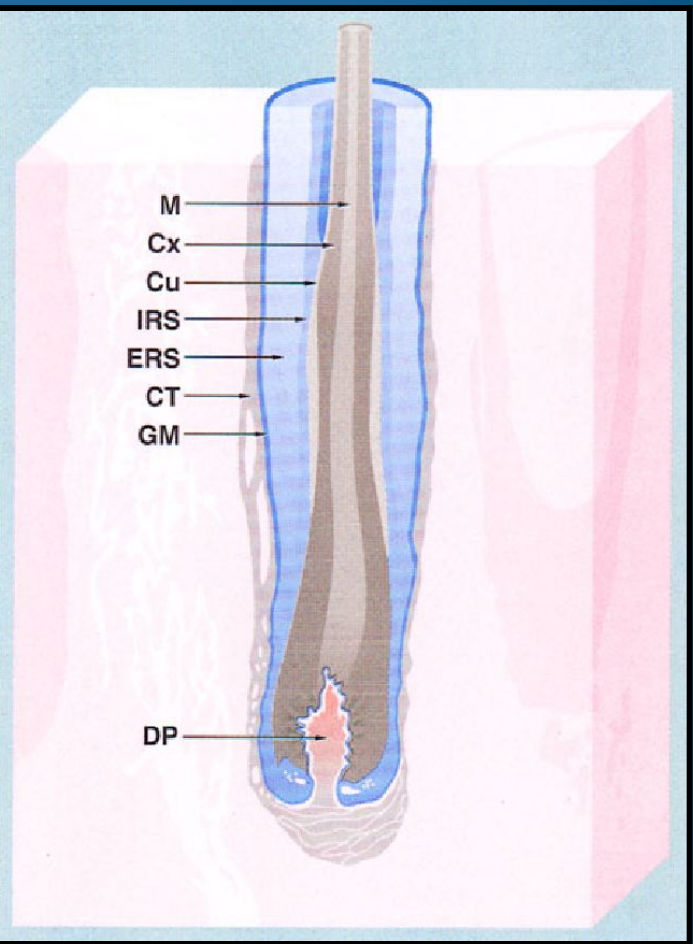
Five concentric layers of epithelial cells:

innermost layer becomes keratinized and forms medulla (core) of hair shaft

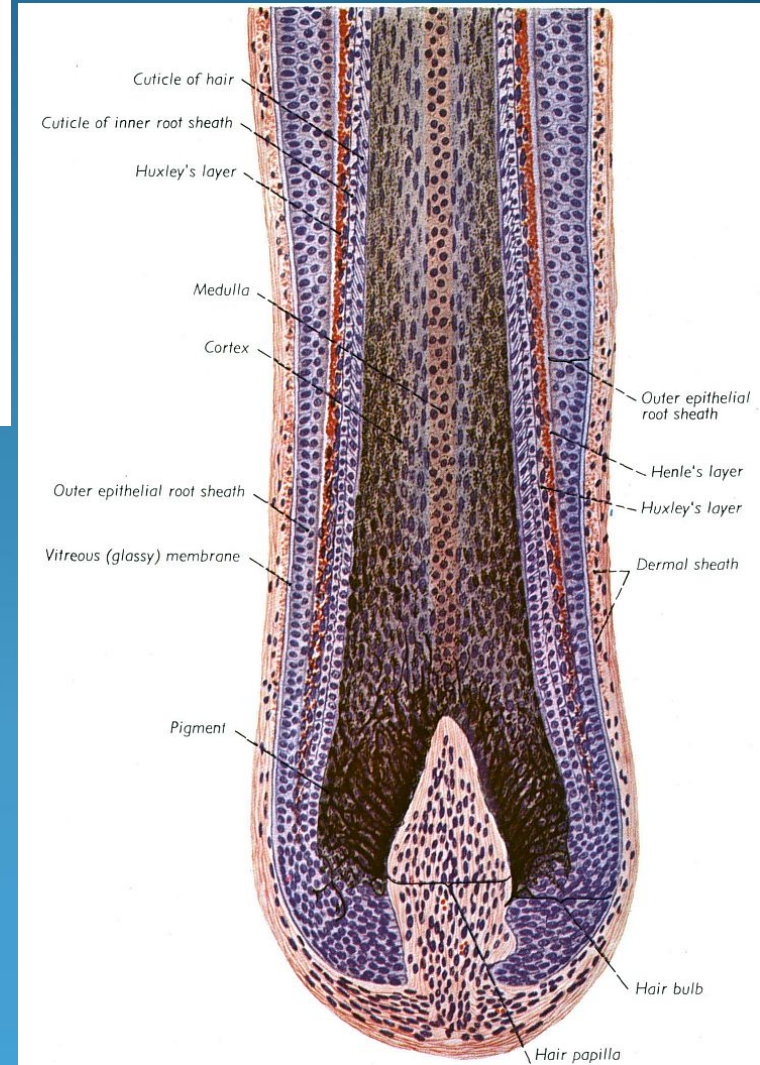
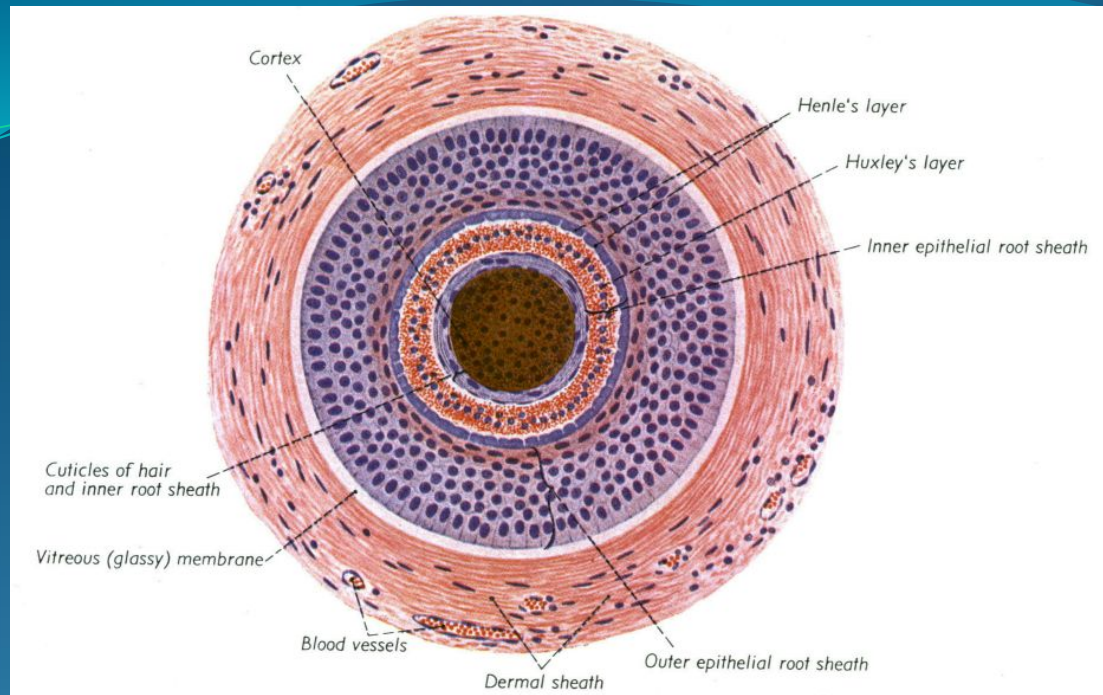
next layer is the cortex---bulk of hair

cuticle middle layer---hard, fully keratinized plate surrounding hair

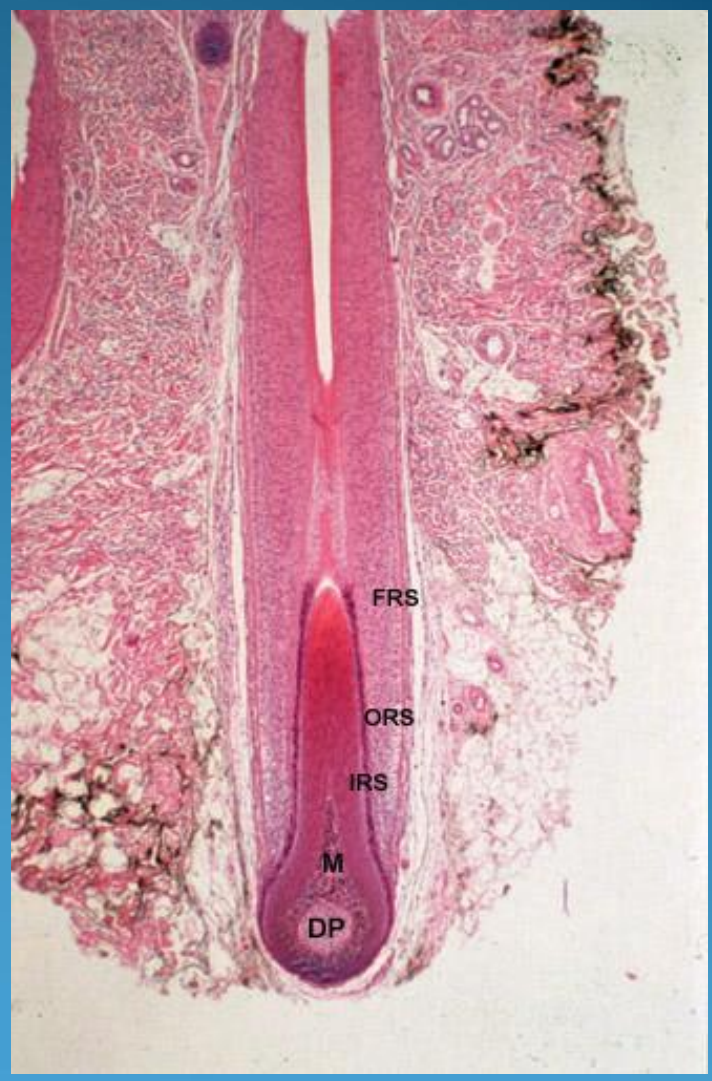
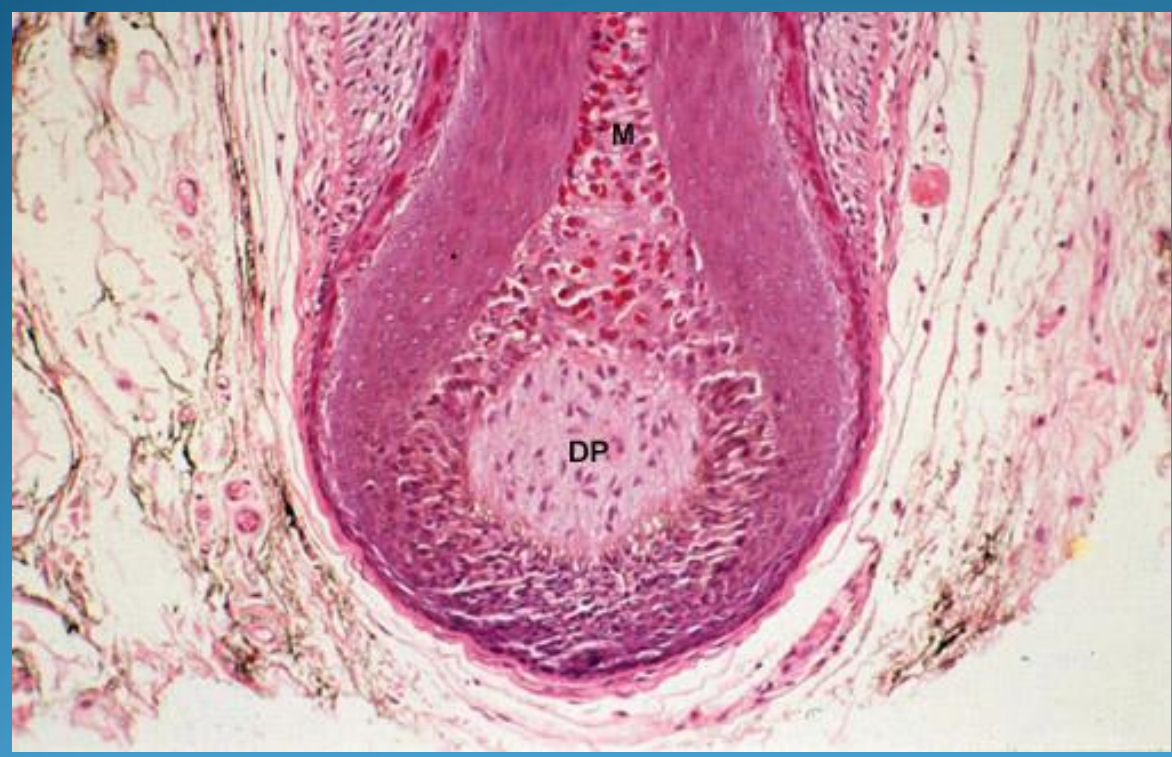
IRS/ERS---inner and external root sheath



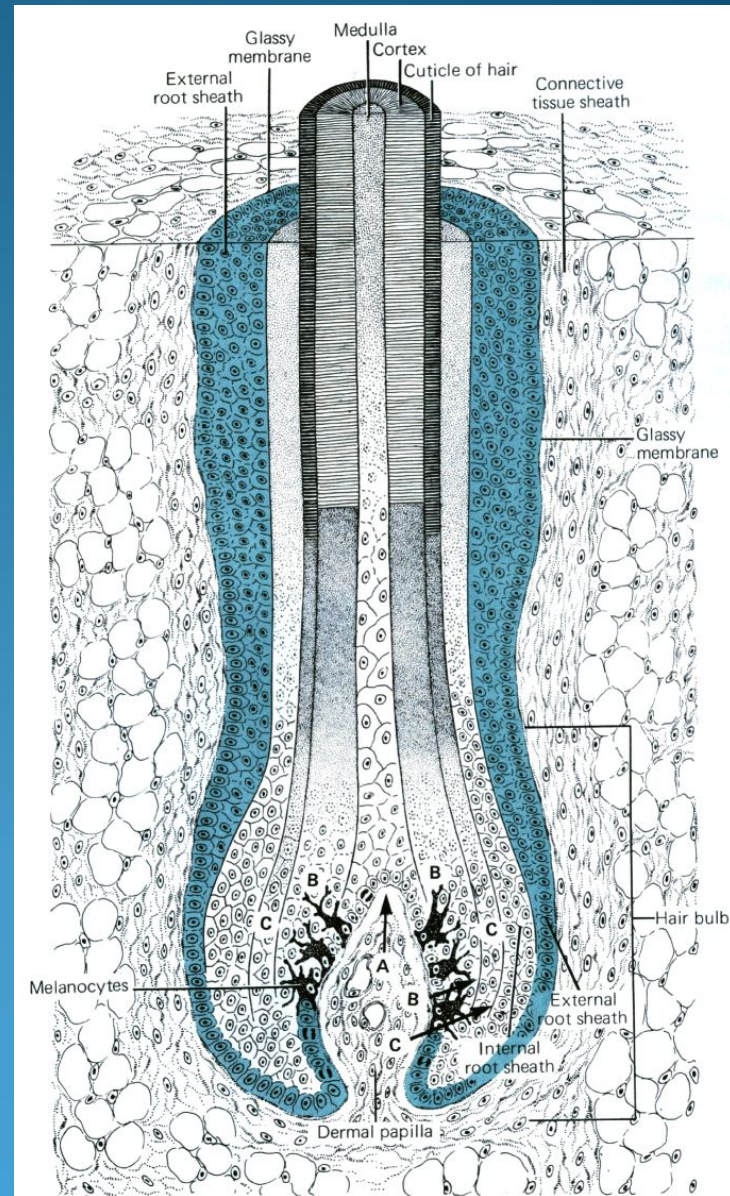
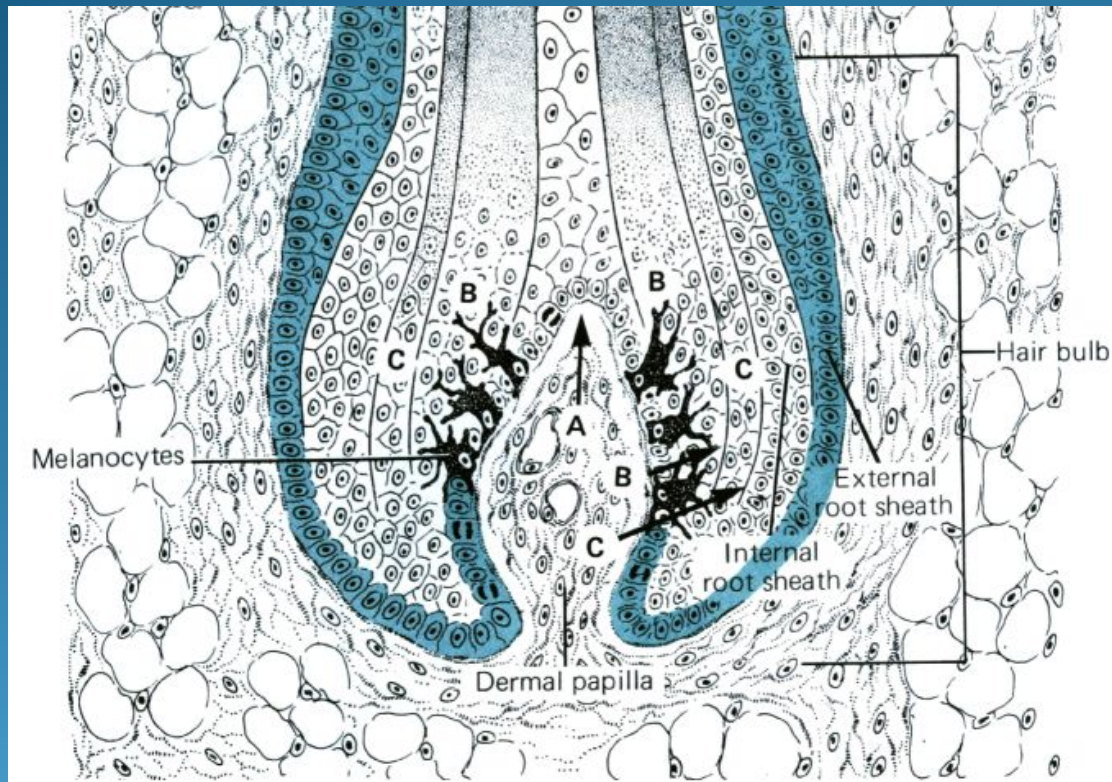
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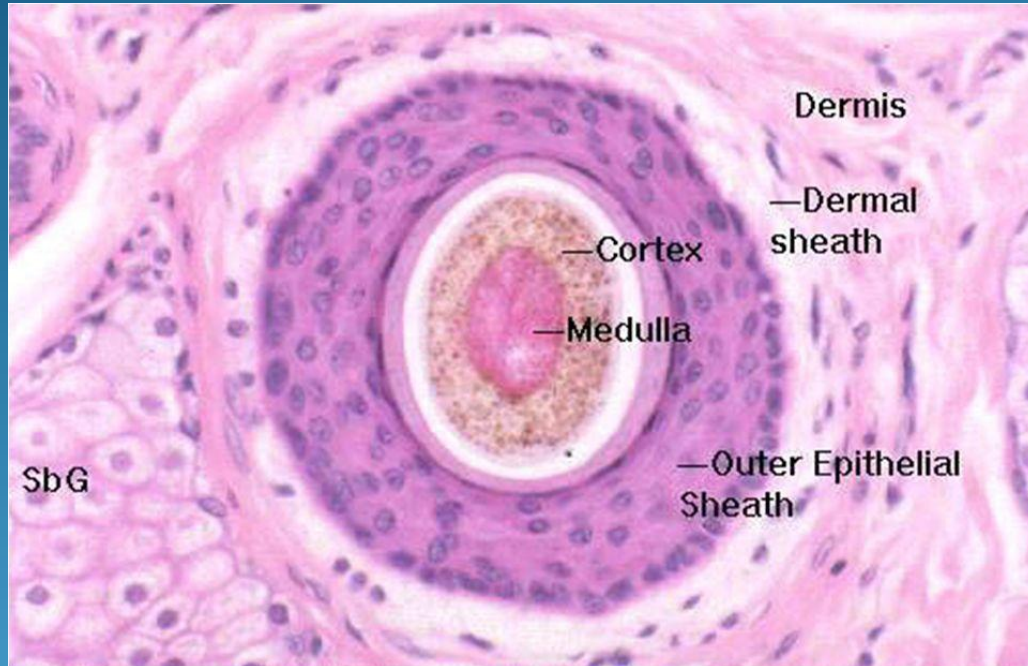


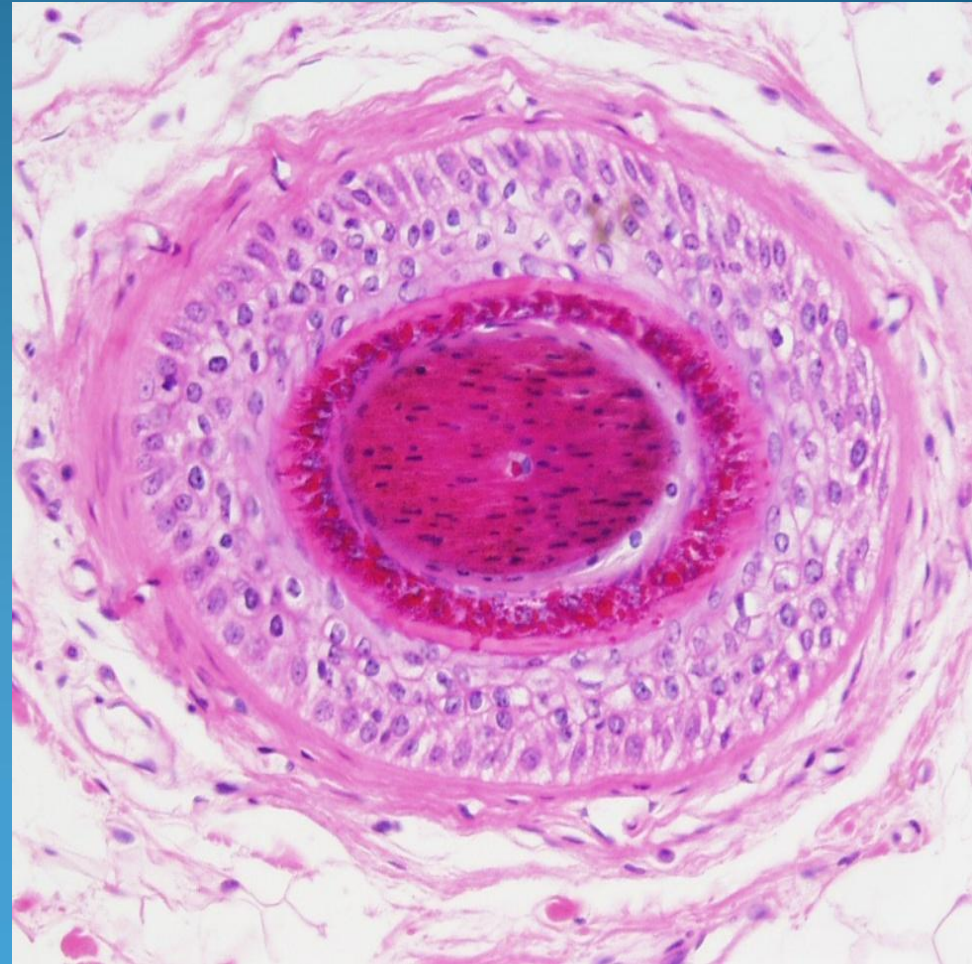
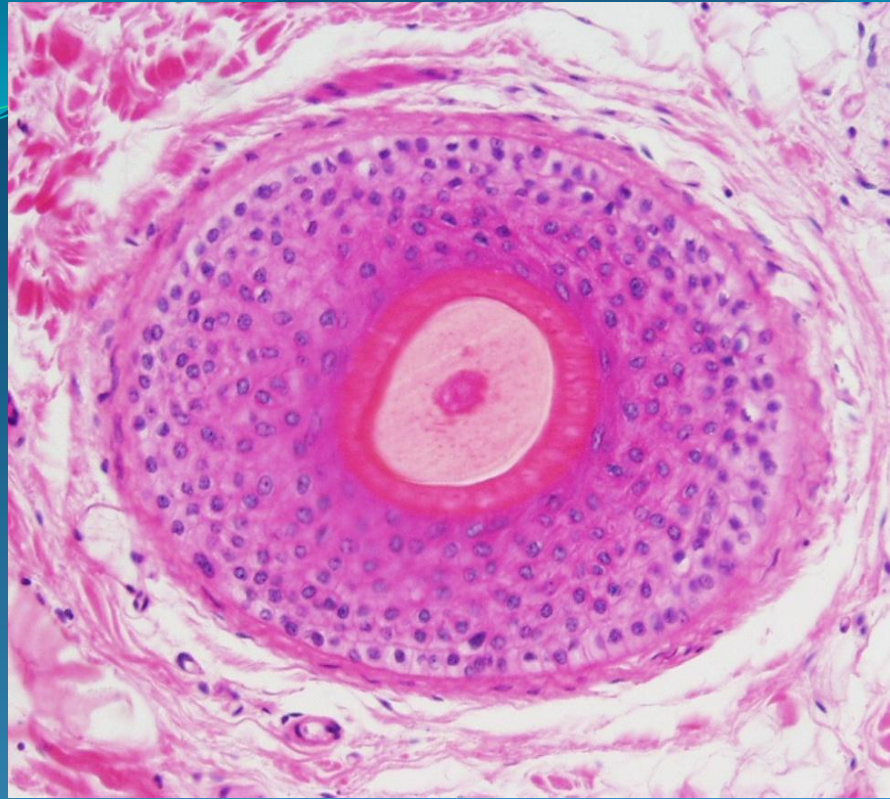
Hair follicle

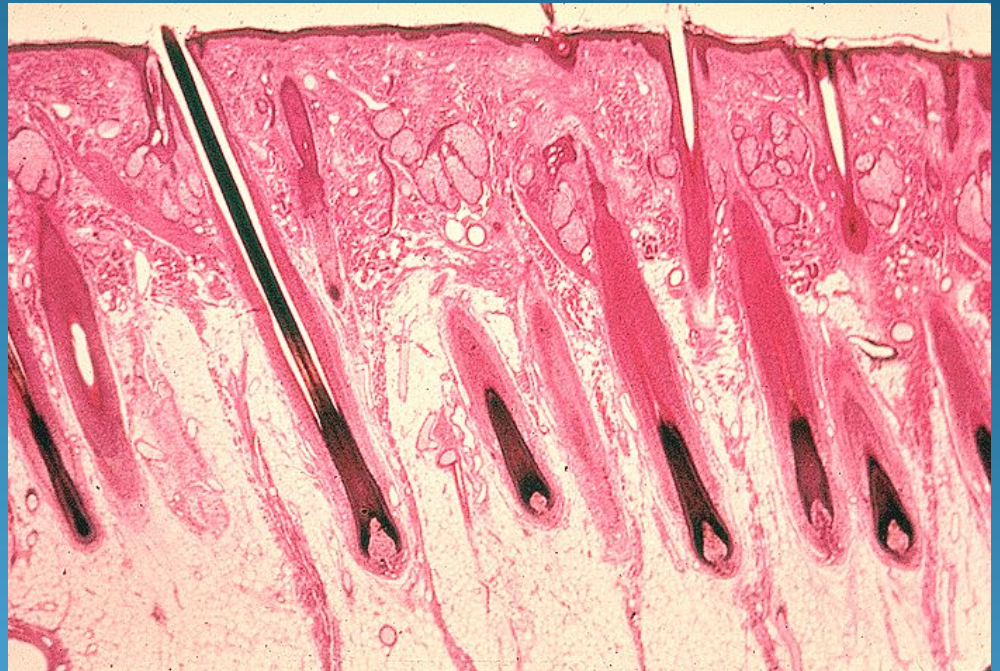
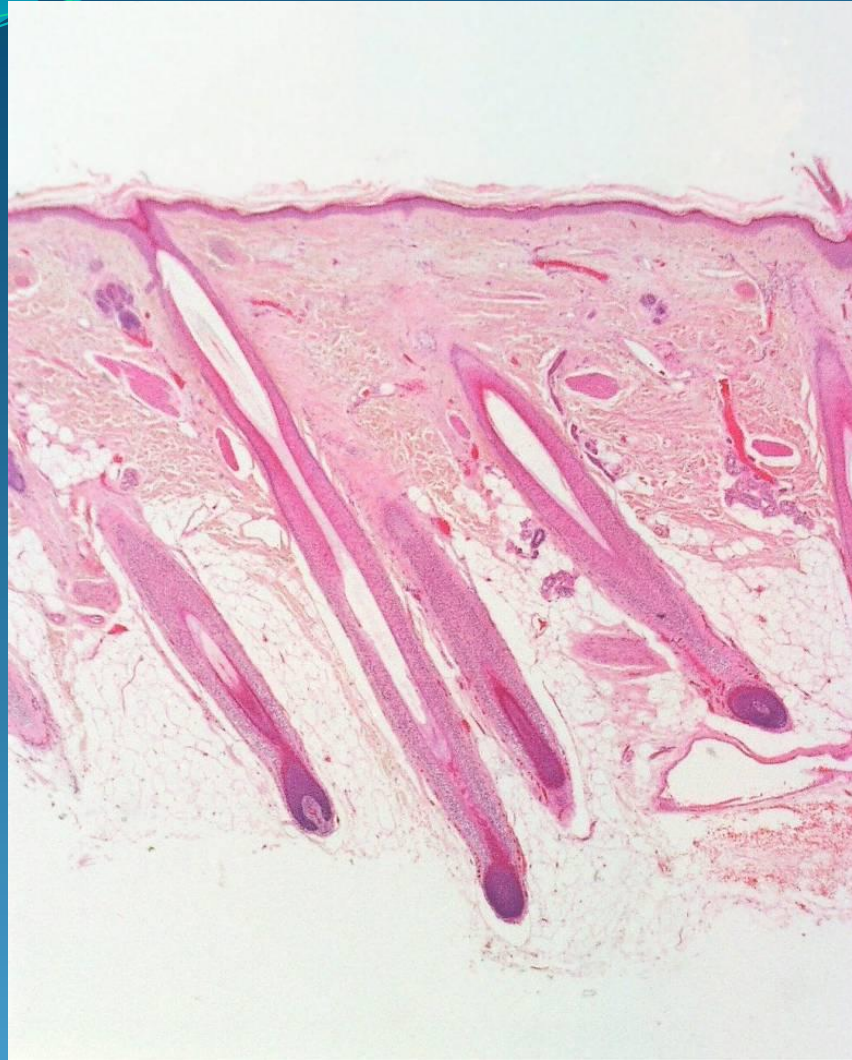


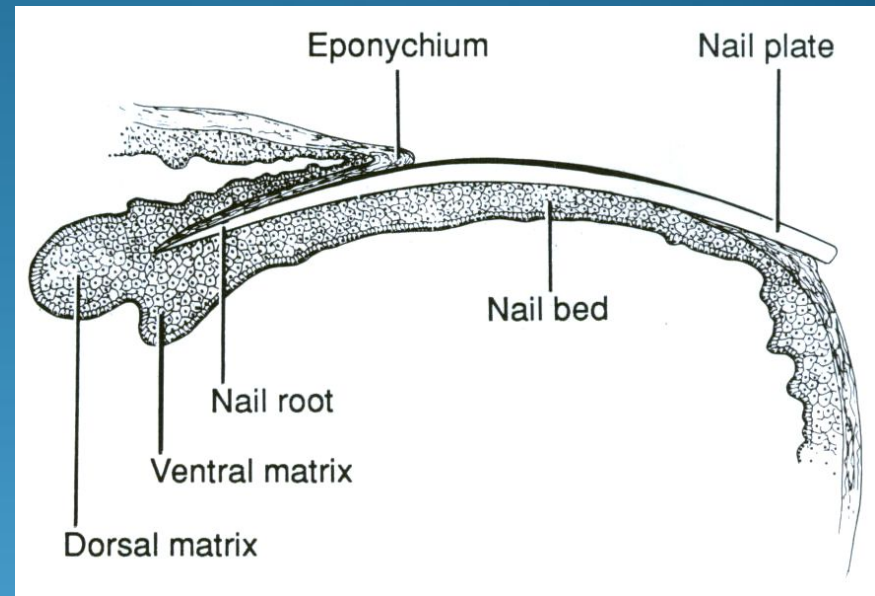
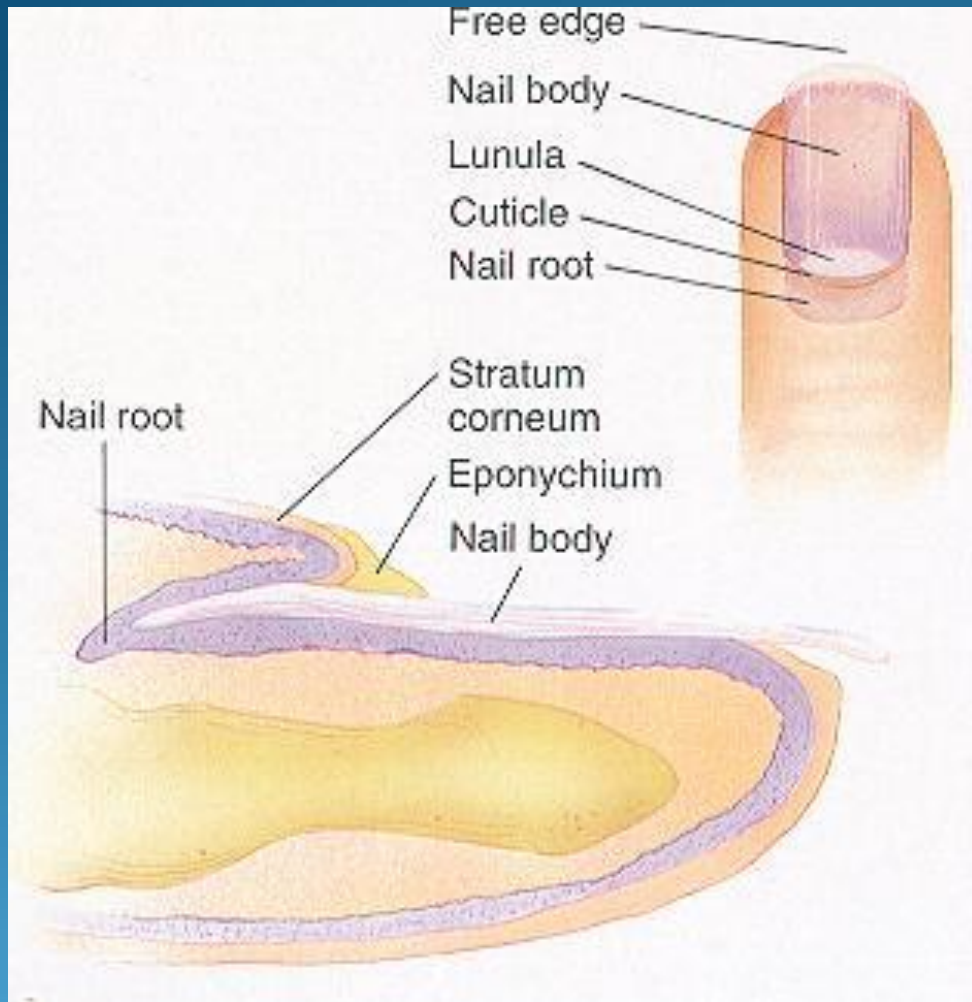
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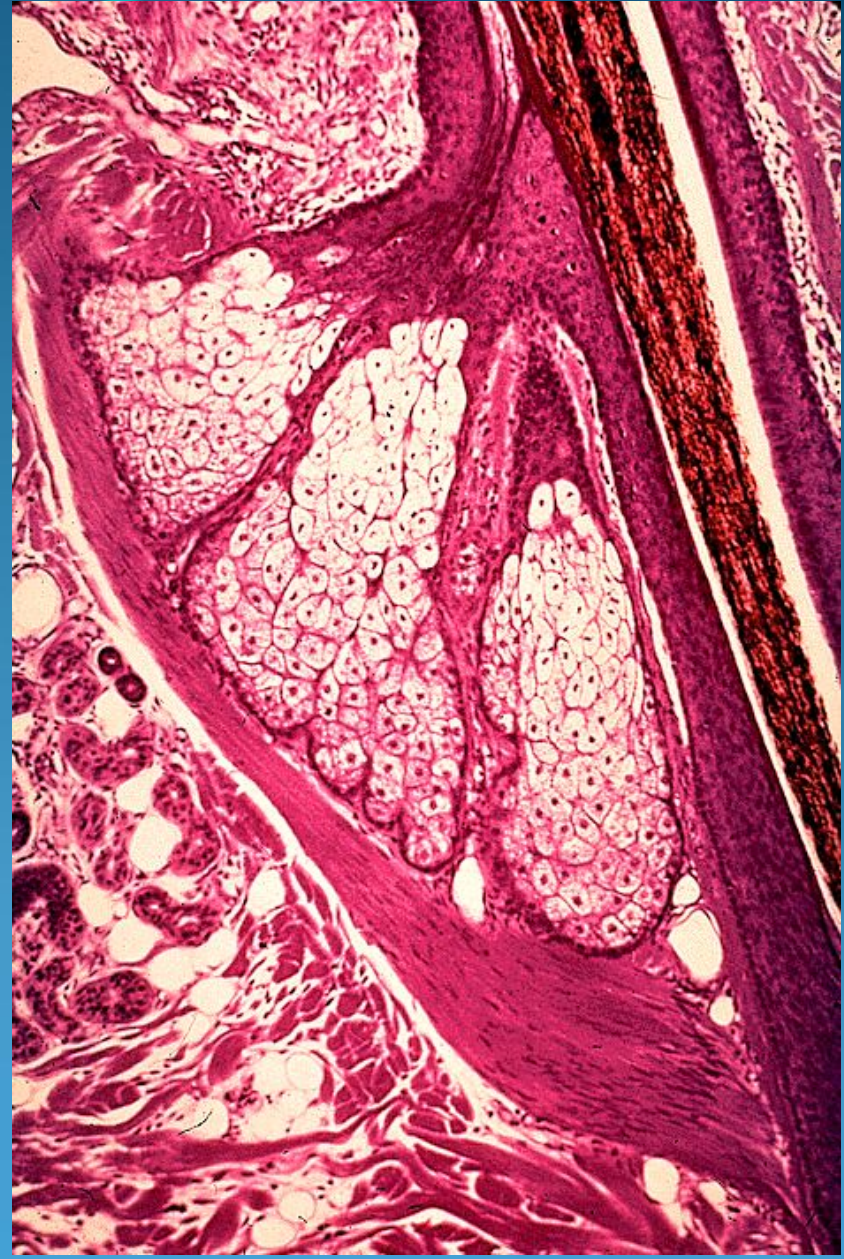
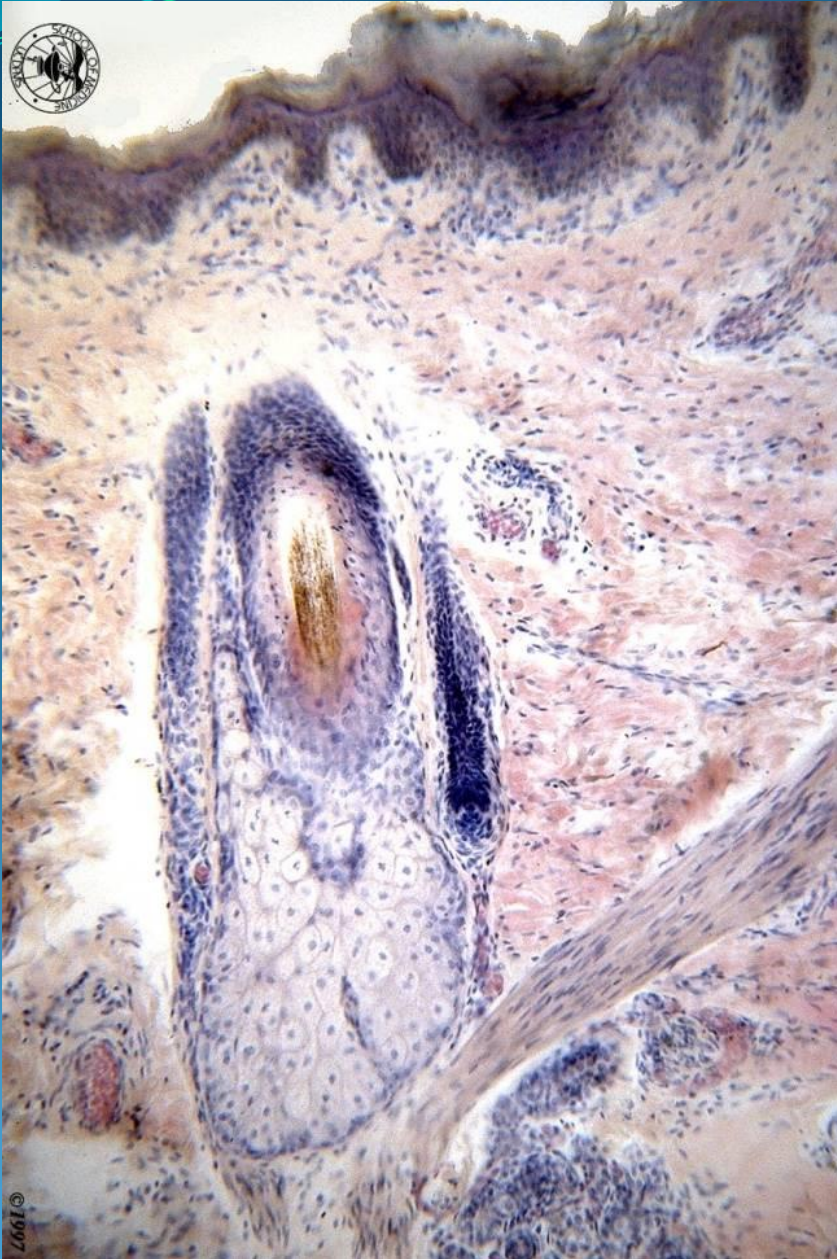




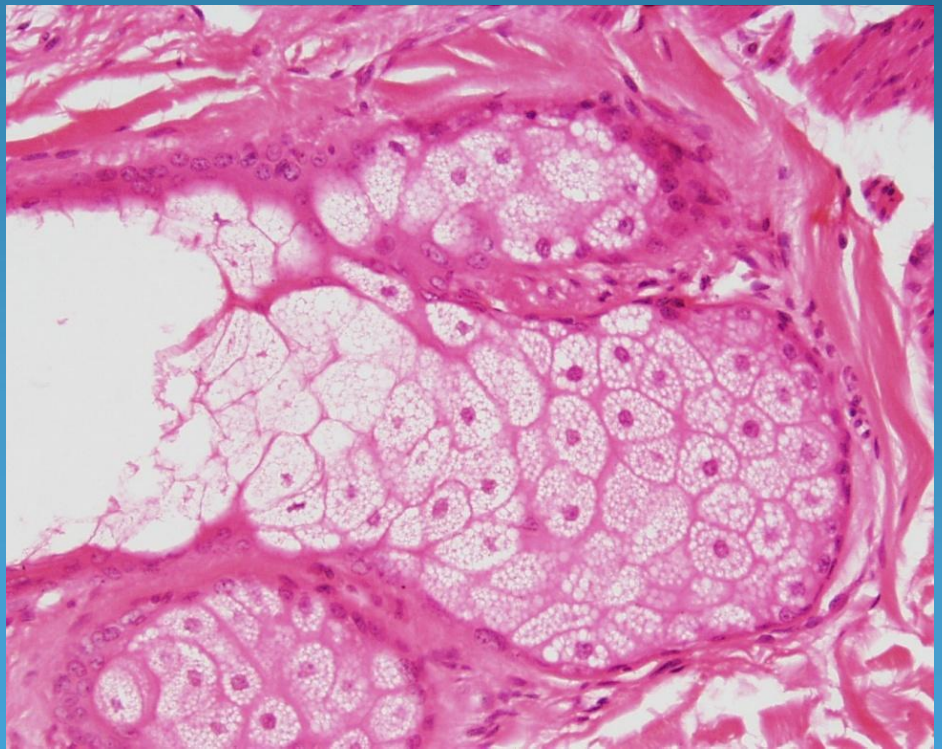
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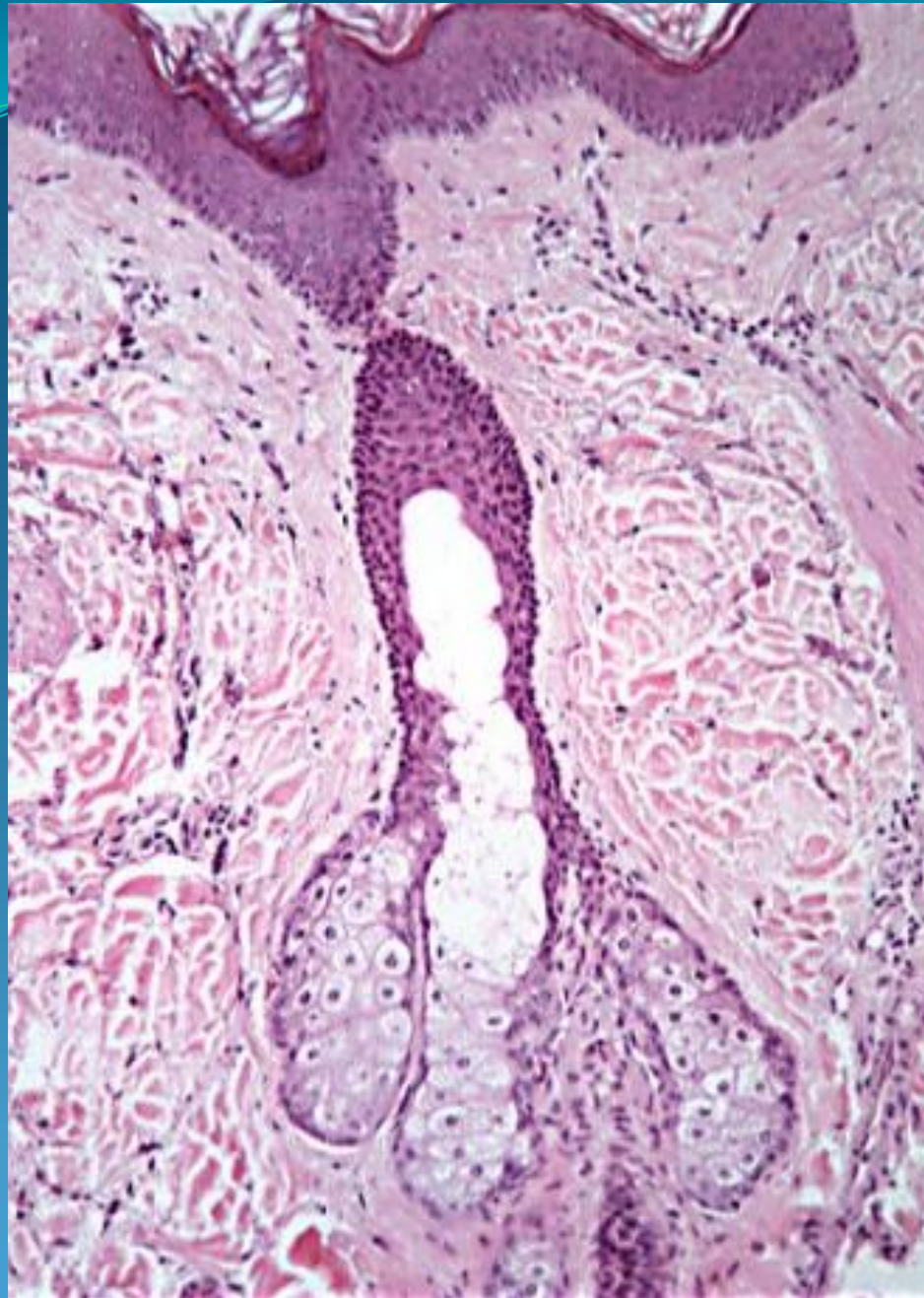


Sebaceous gland



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Duct Epithelium:

Cl⁻ Channel: CFTR

Secretory Epithelium:

Na⁺ Channels: ENaC/DEG

K⁺ Channels: IK Family

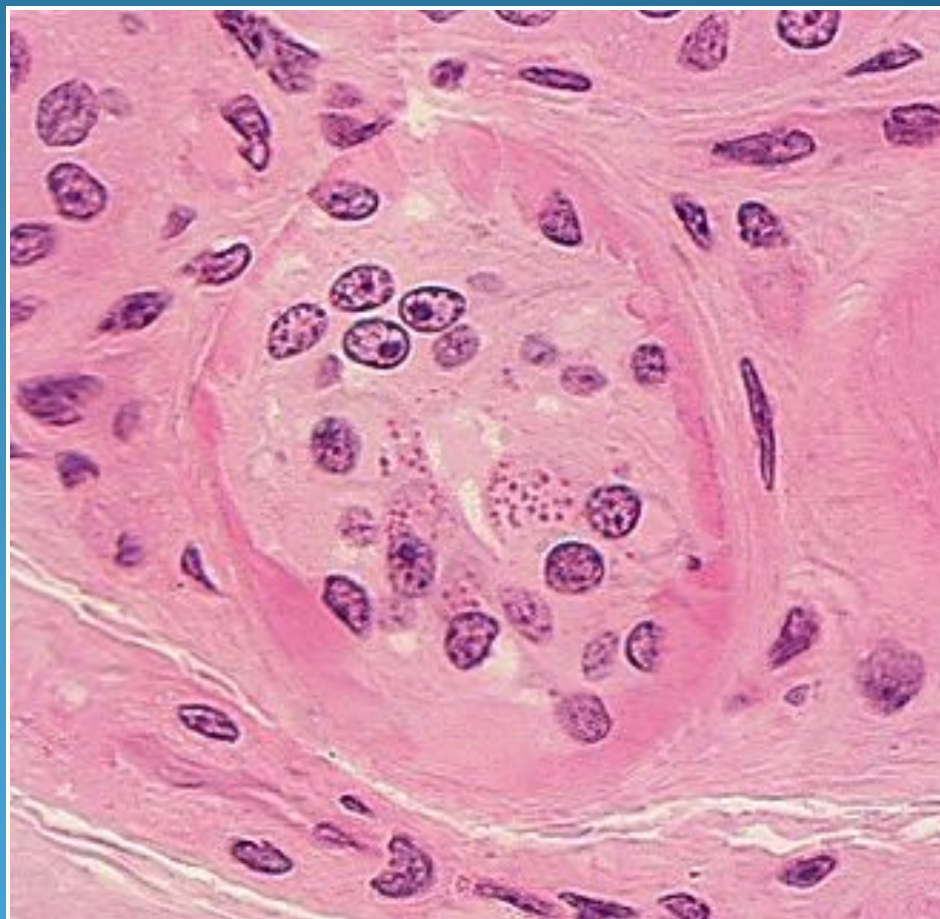
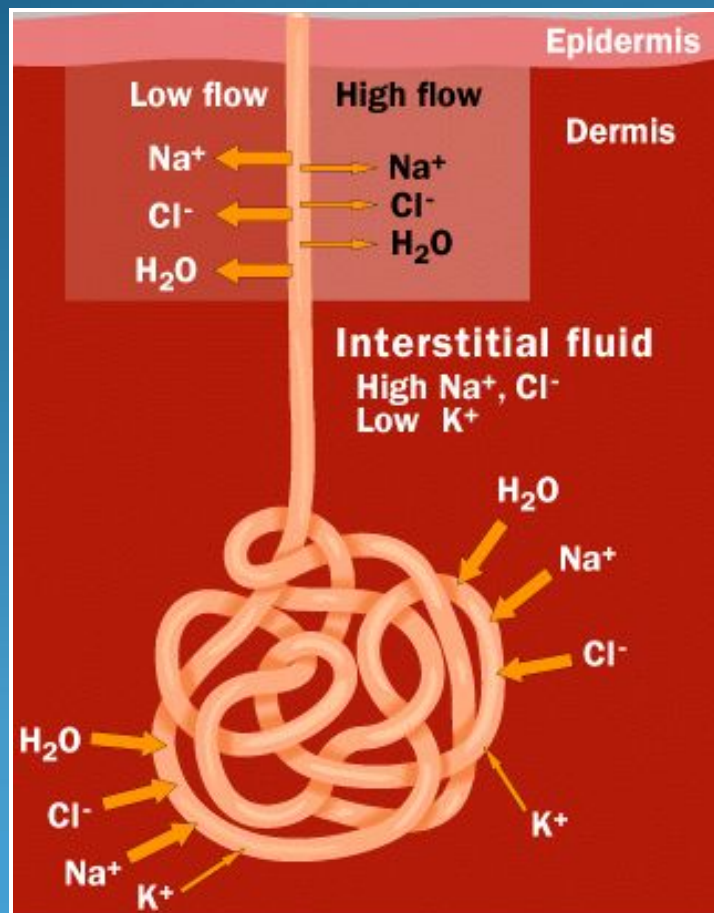
Cl⁻ Channels: CaCC Family

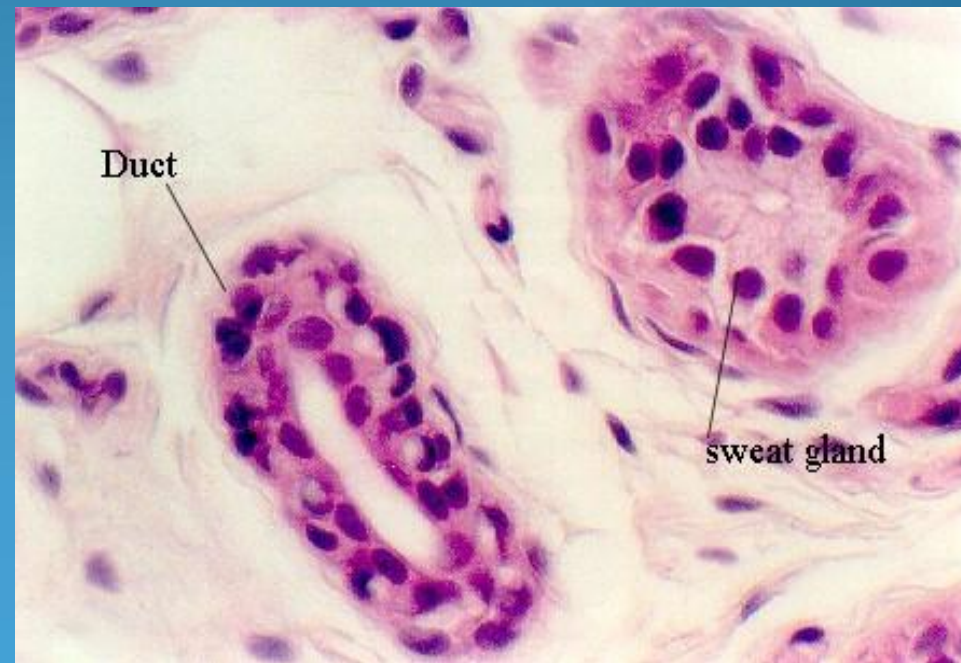
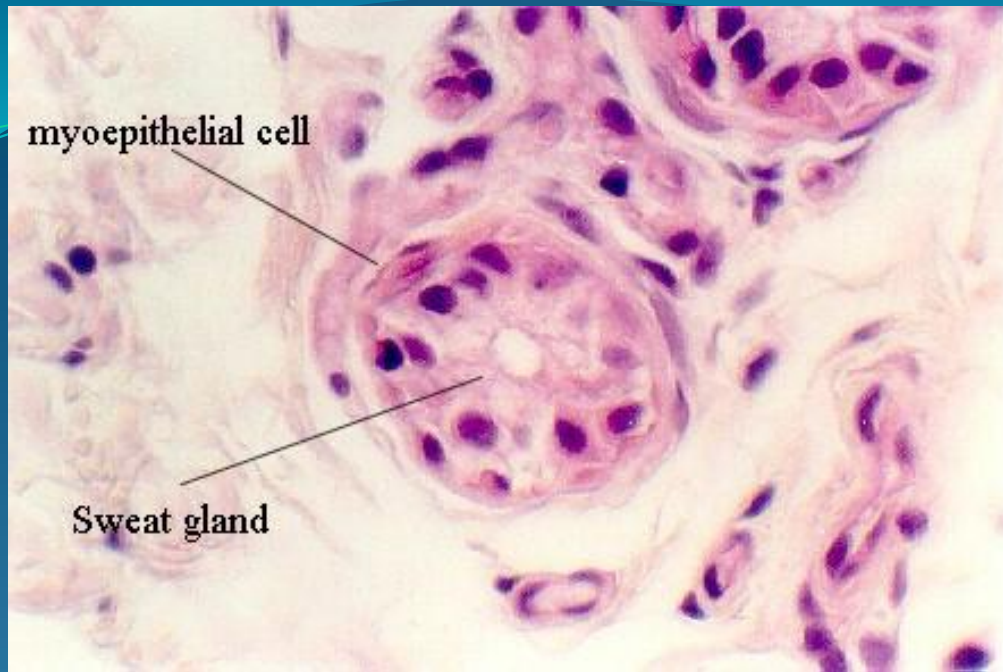
Sweat Gland (Secretory)

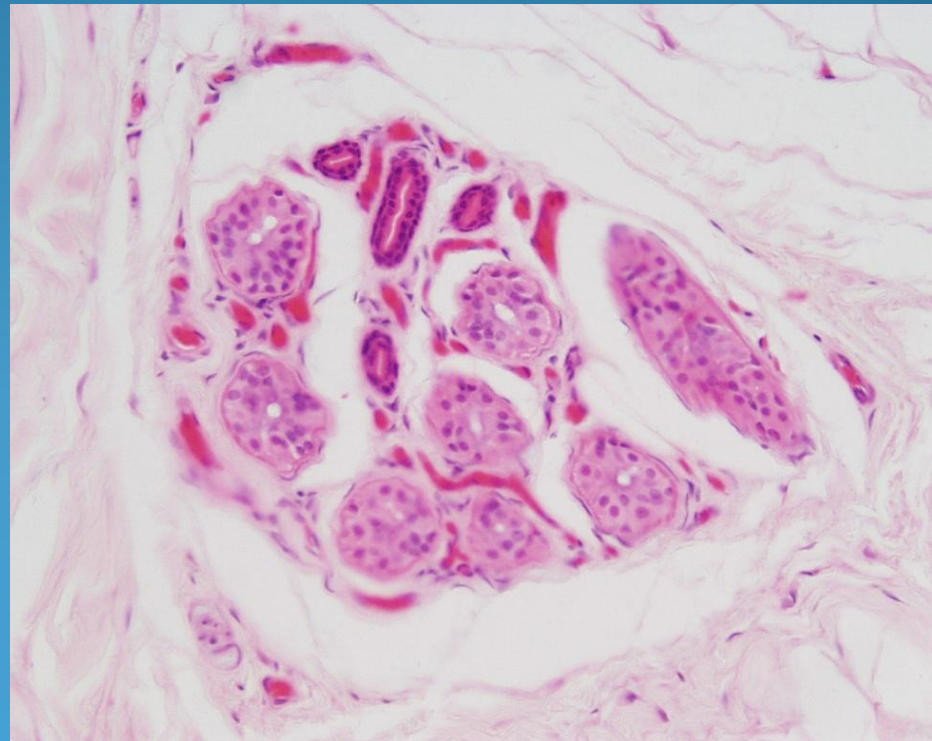
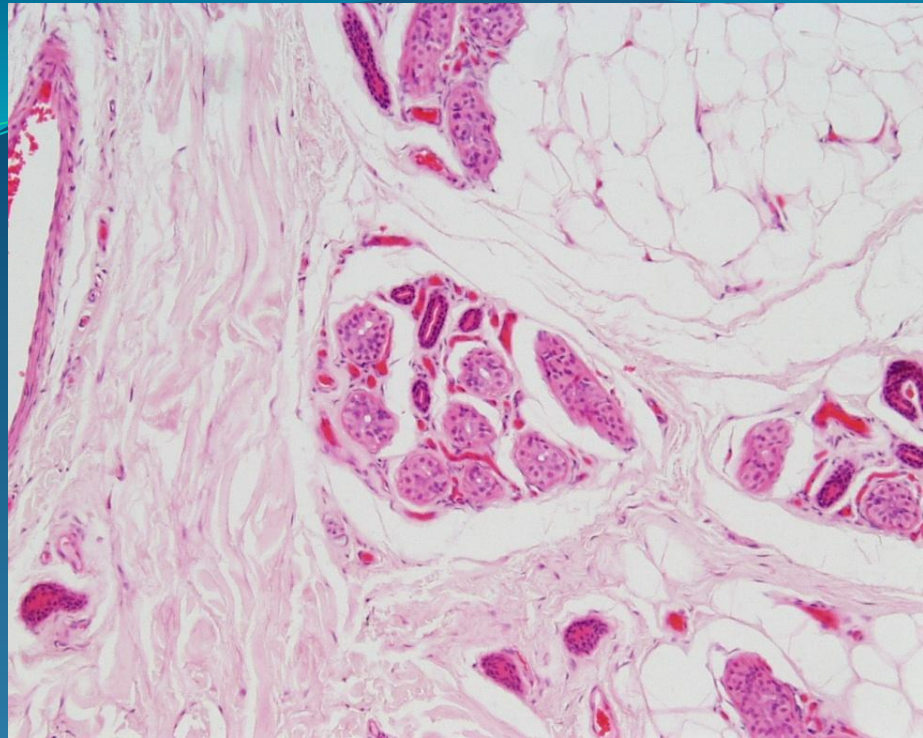
Clear cells: salt/fluid

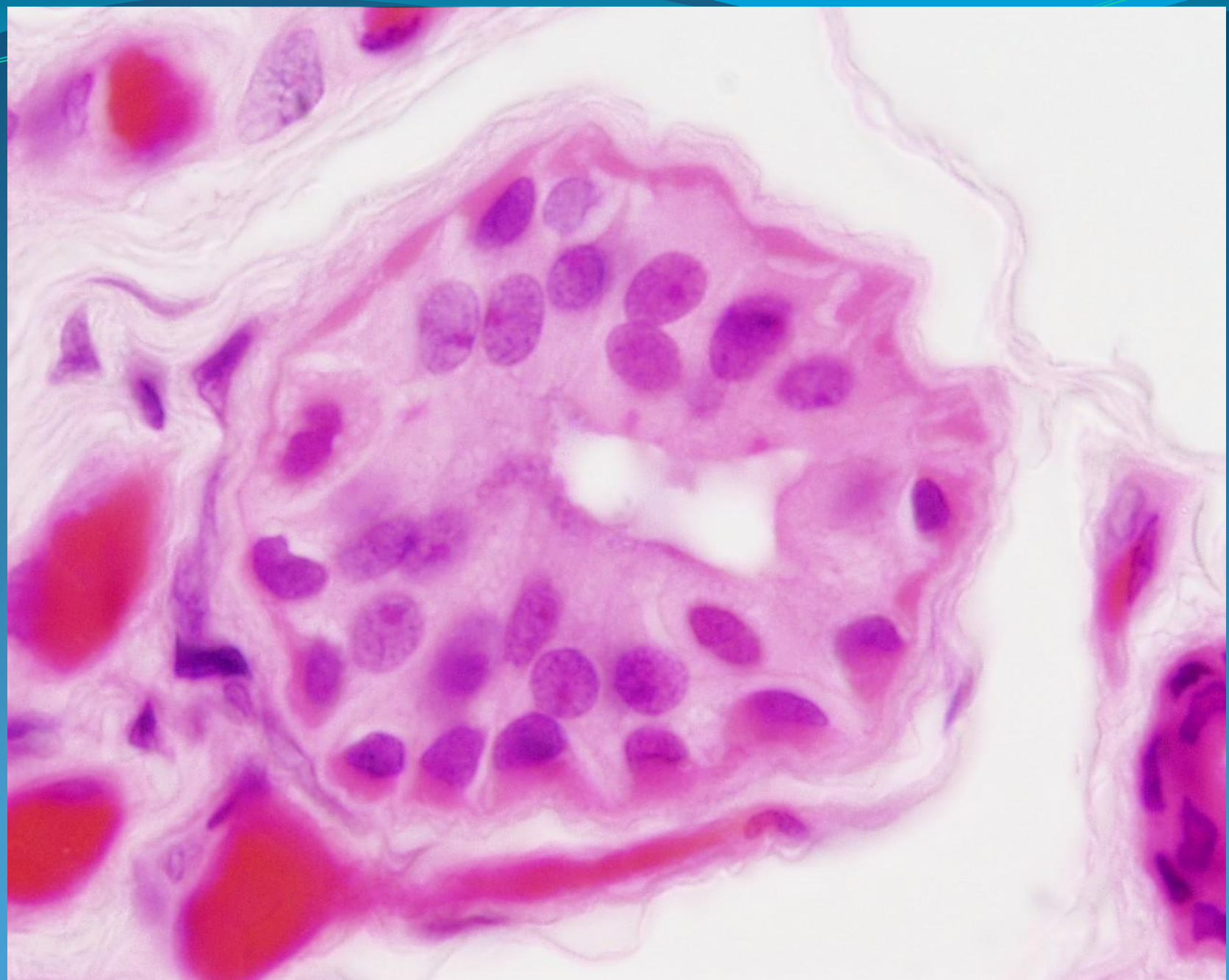
Dark Cells: secretory granules

glycoprotein





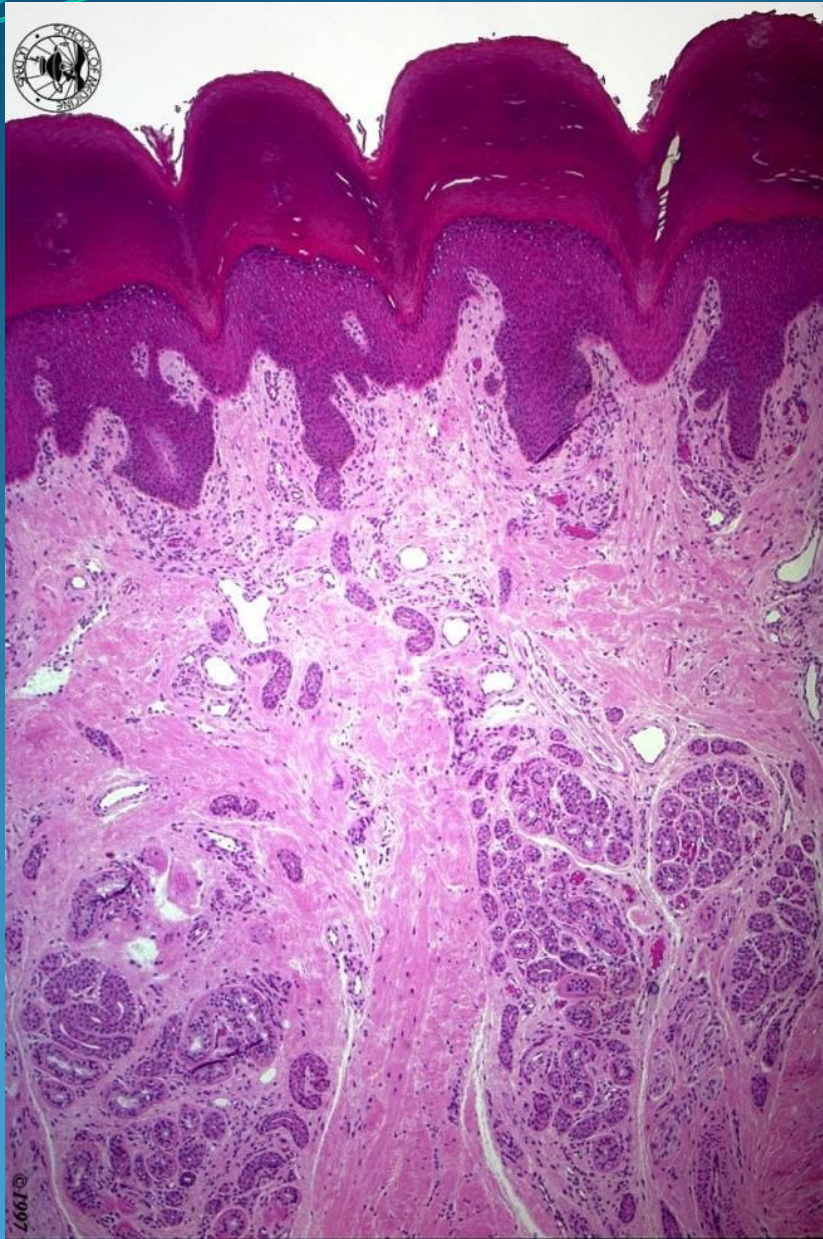


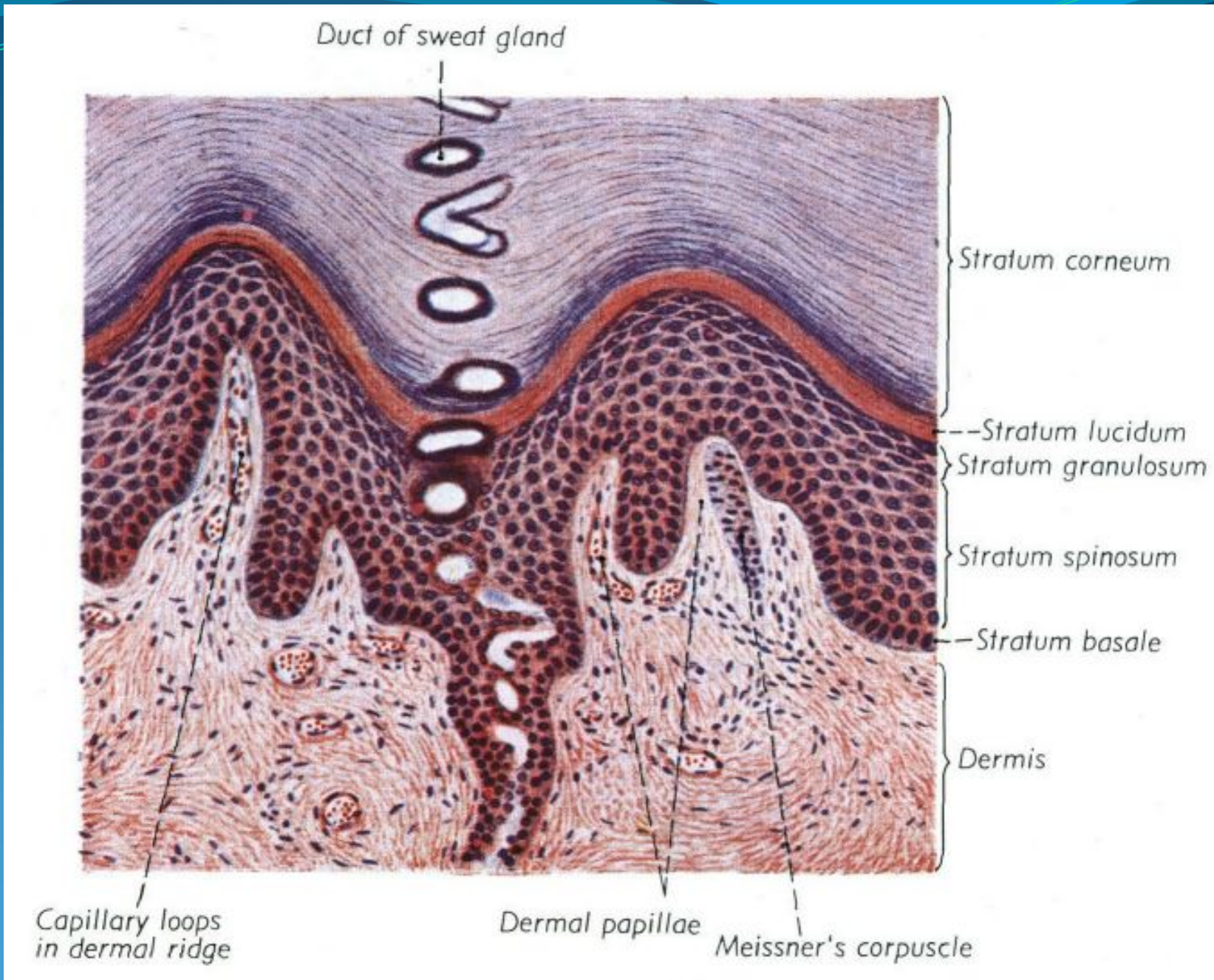


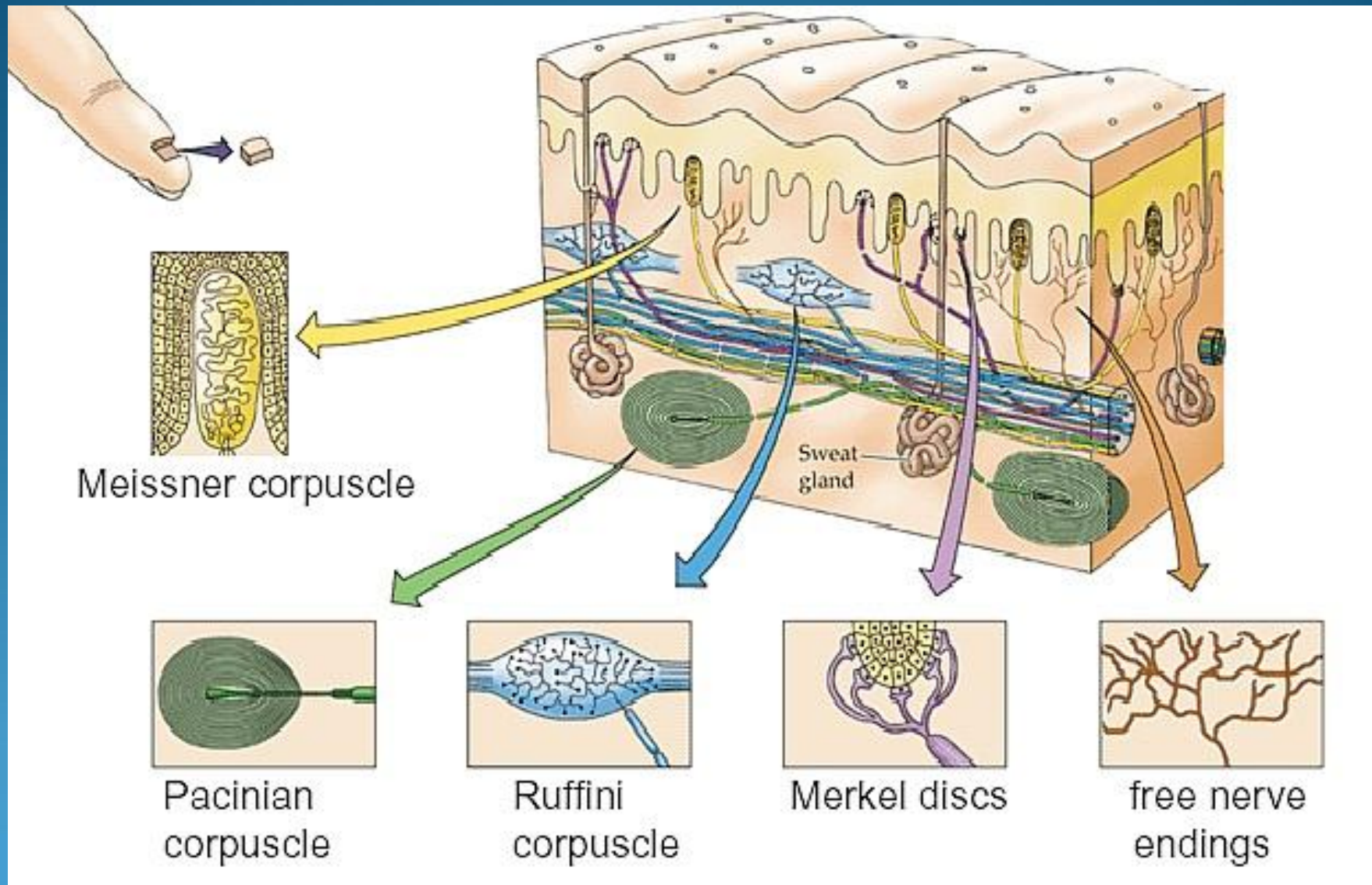
Apocrine glands

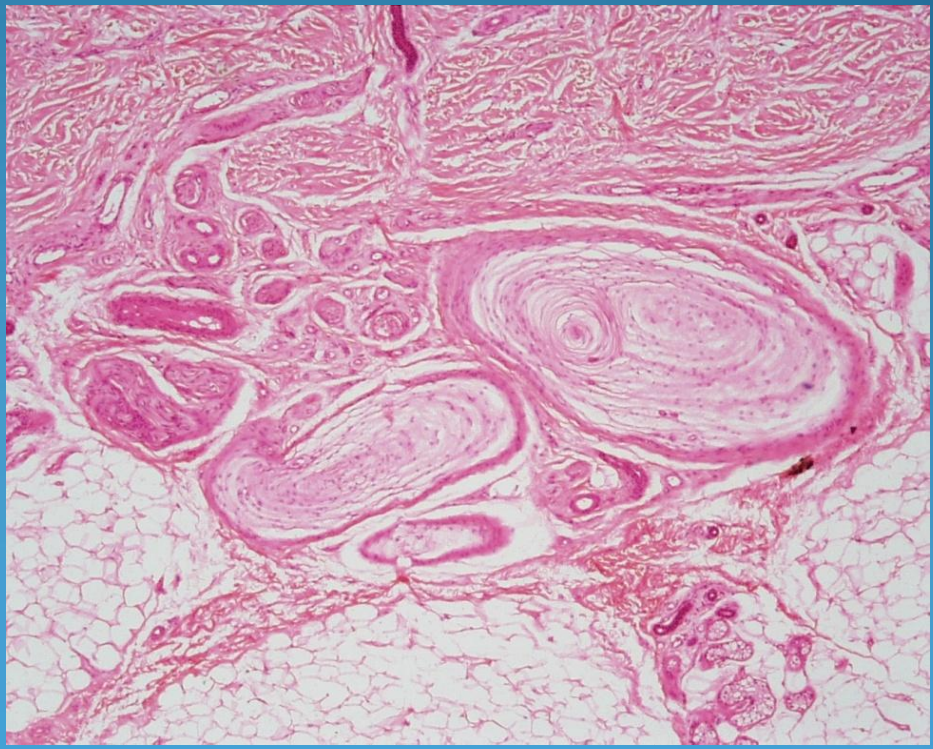
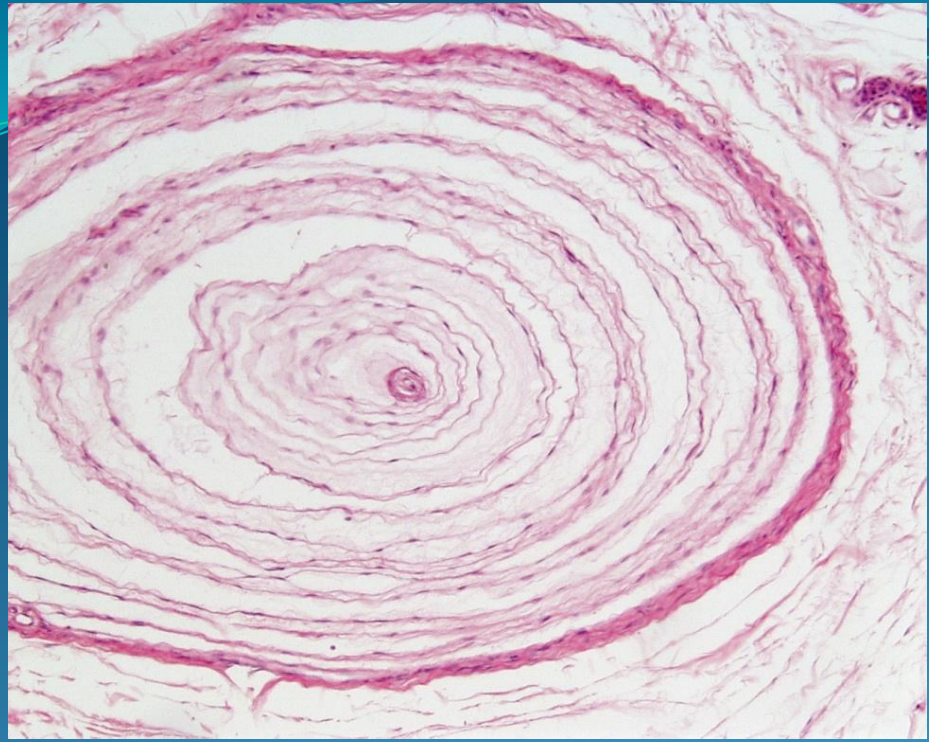


Duct of merocrine gland

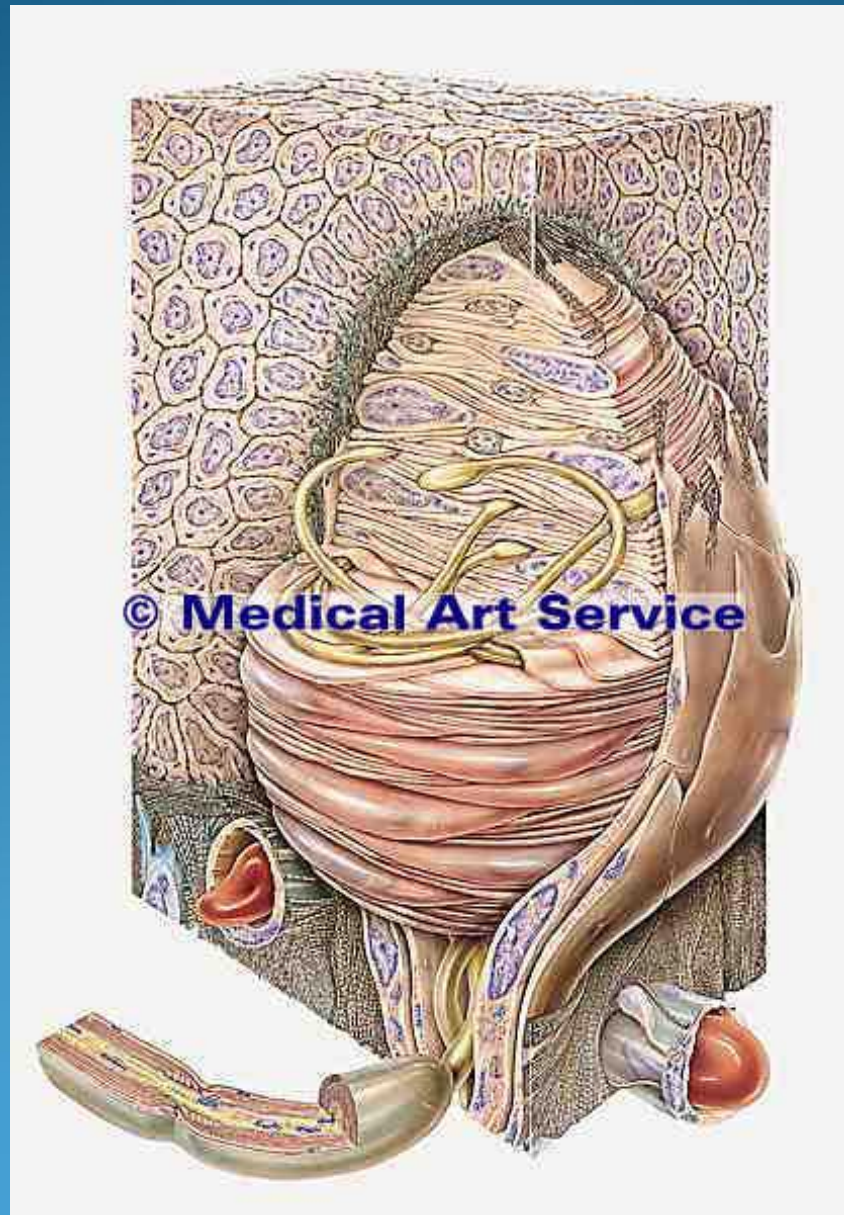






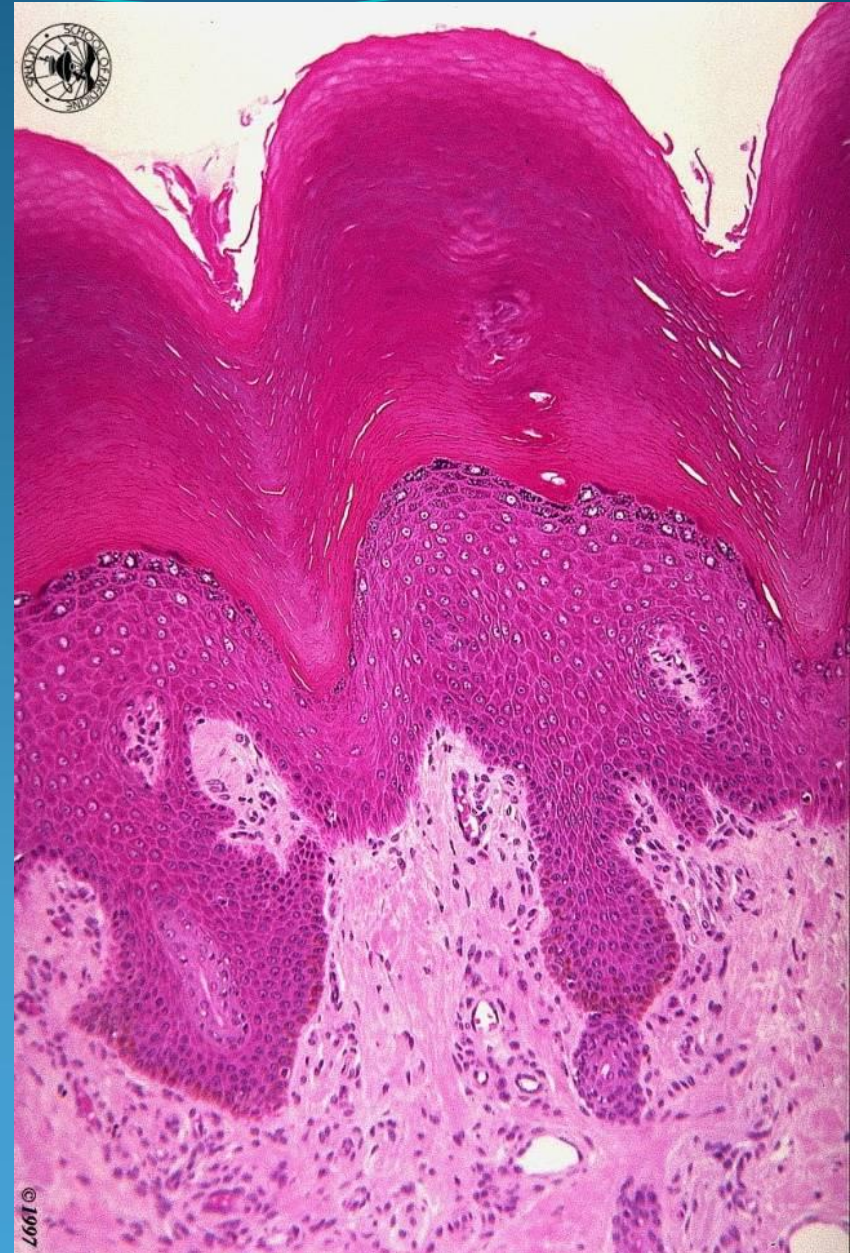
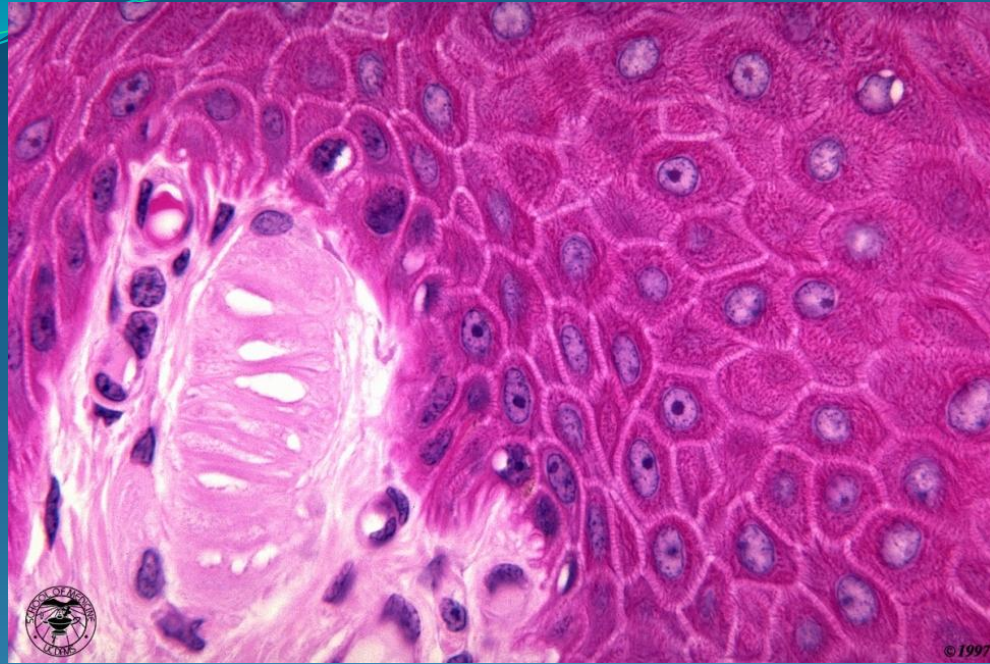


Meissner corpuscle



Meissner corpuscle

Thick skin with Meissner corpuscle



Krause corpuscle

