

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, остистый 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.

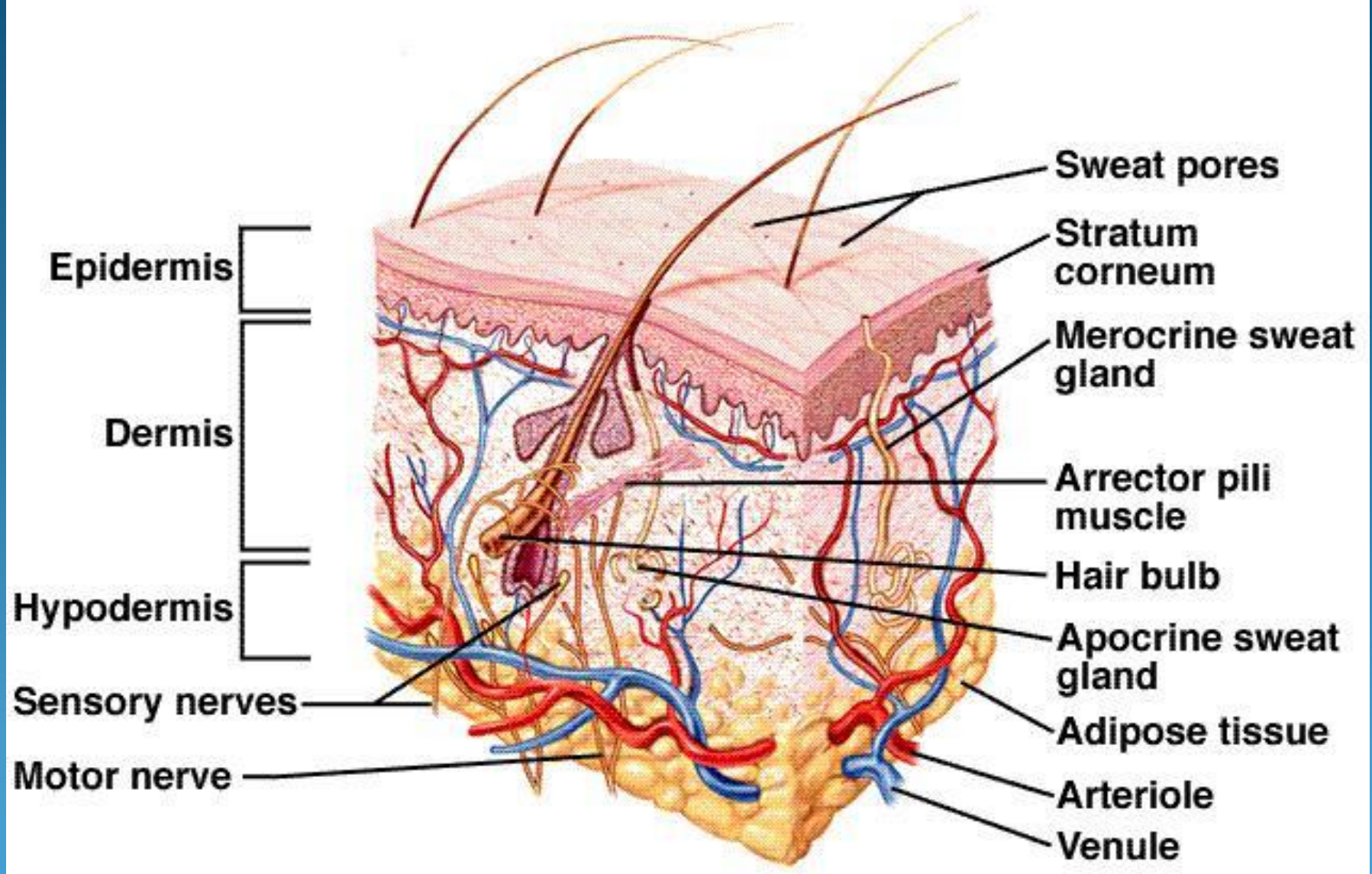
Пушкове,
lanugo,
пушковыє.

Потові,
sweat,
потовые .

Сальні,
sebaceous,
сальные.

Молочні,
mammary,
молочные.

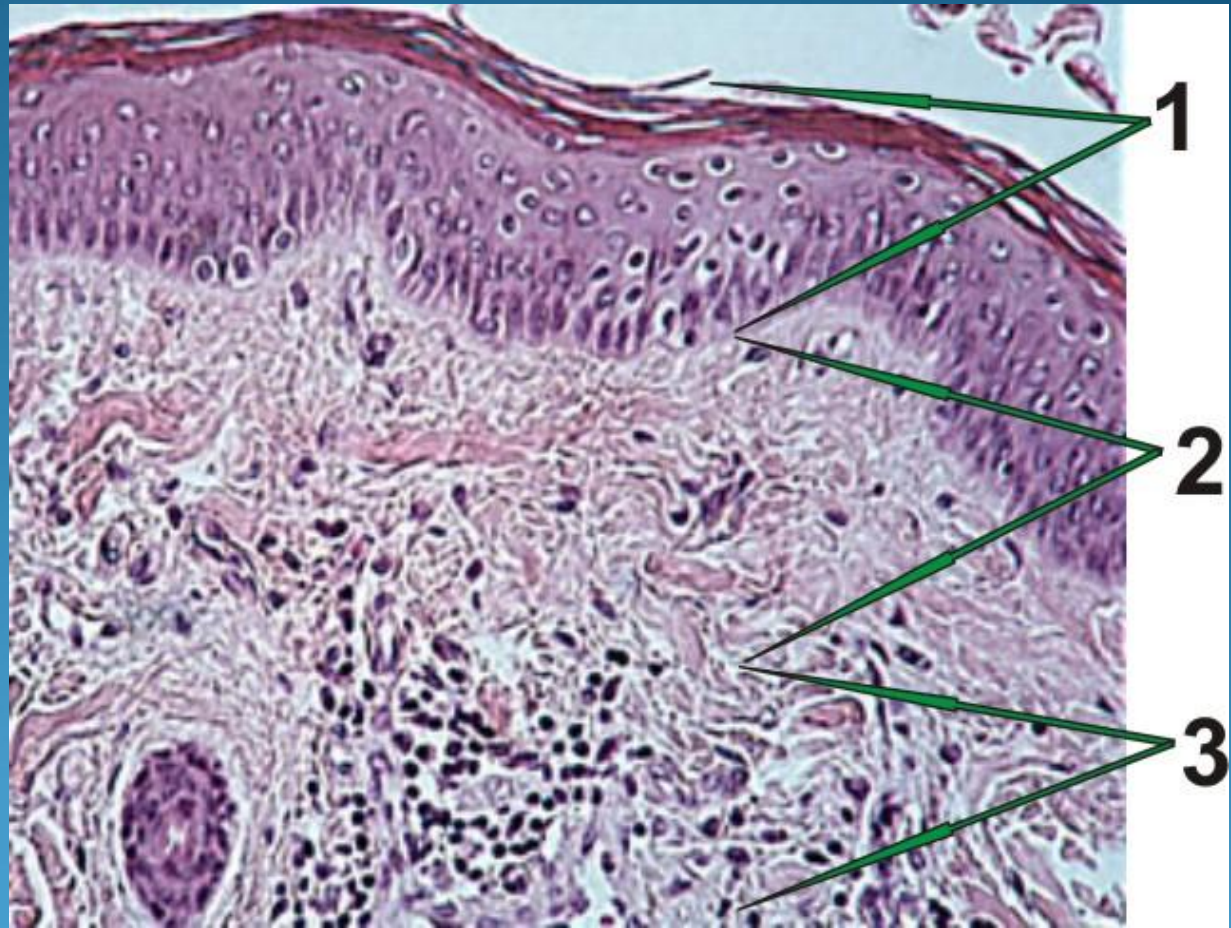
Skin Structure — Overview



1. Епідерміс,
epidermis,
эпидермис.

2. Дерма, dermis,
дерма

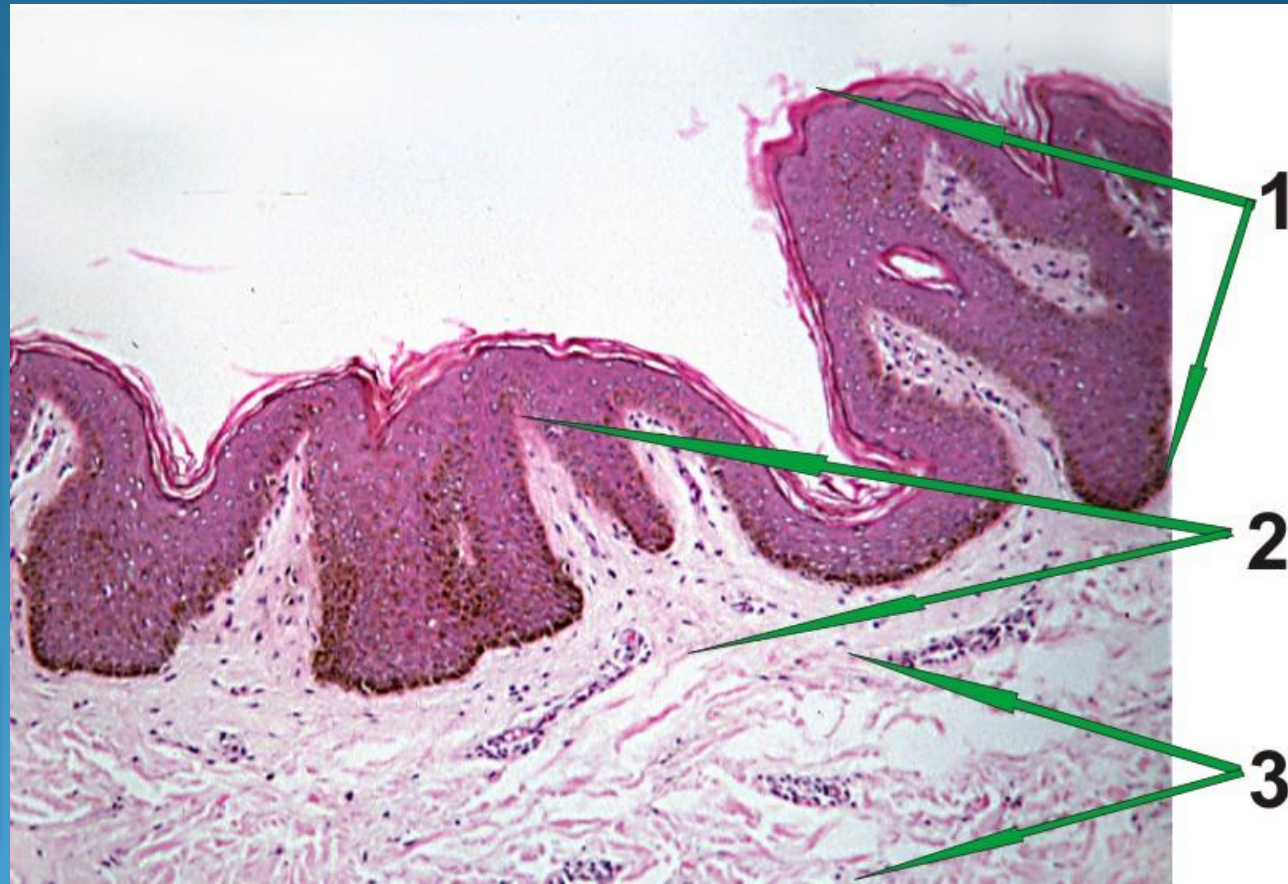
3. Гіподерма,
hypodermis,
гиподерма

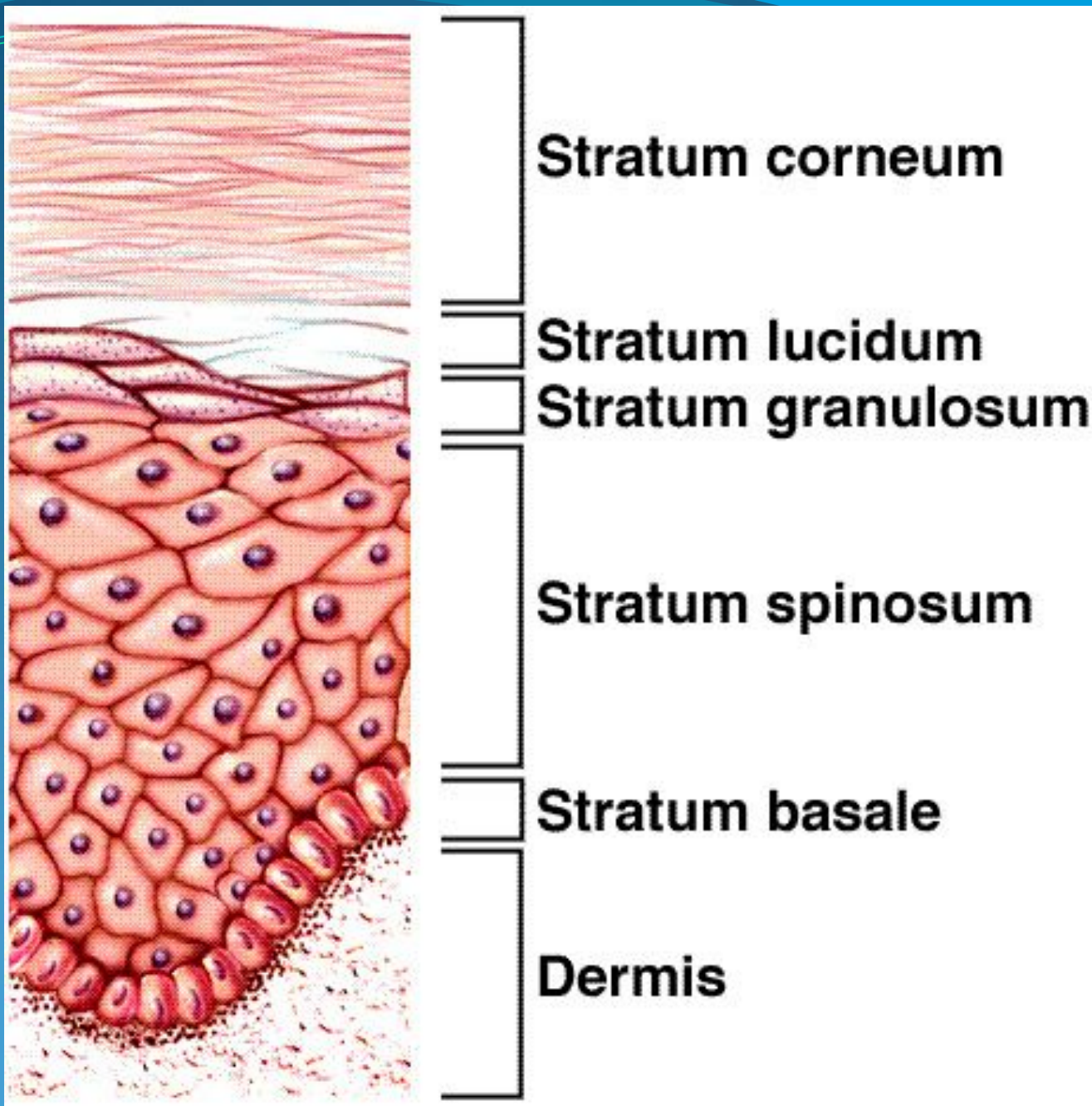


1. Епідерміс,
epidermis,
эпидермис.

2. Дерма, dermis,
дерма

3. Гіподерма,
hypodermis,
гиподерма





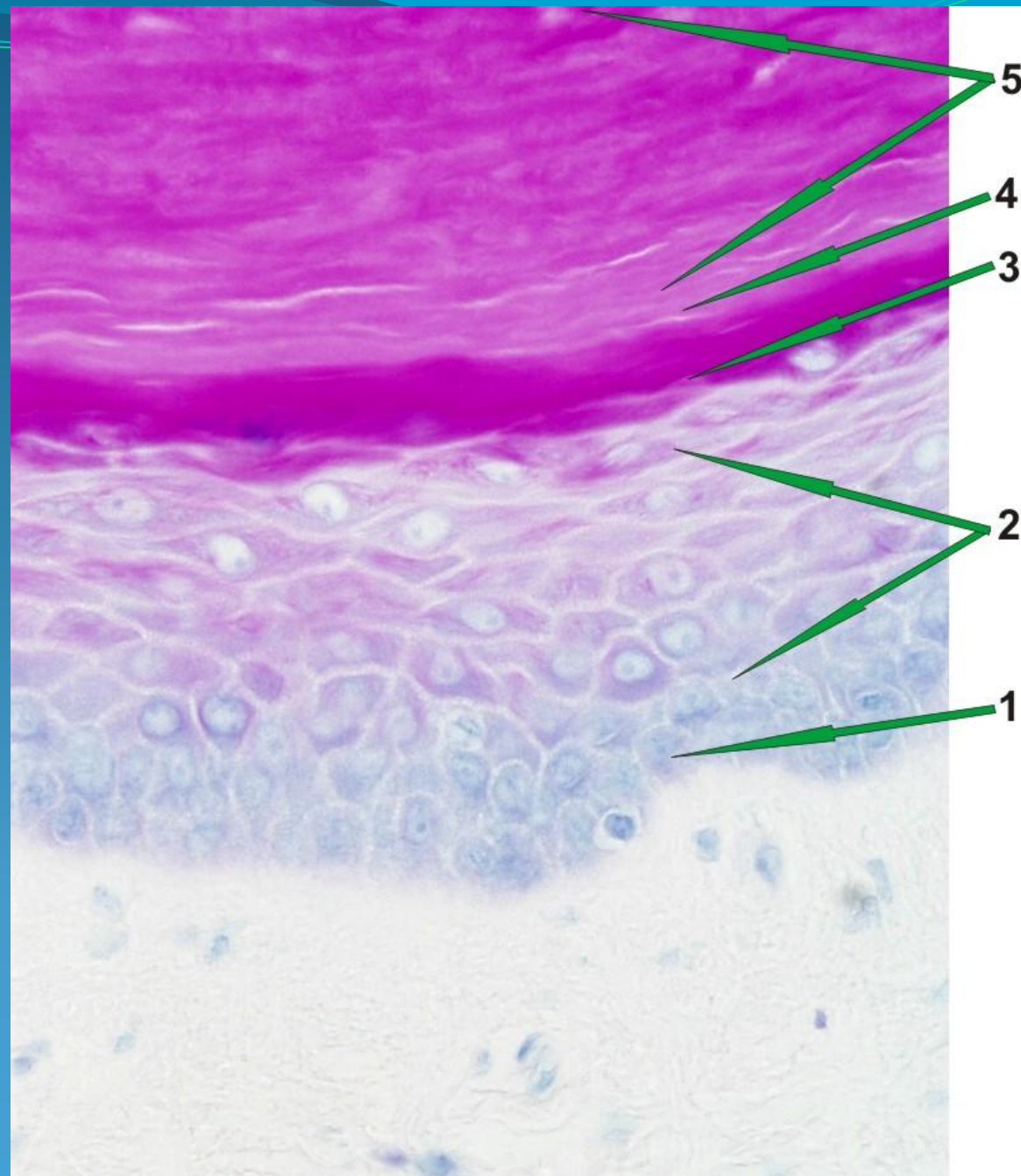
1. Базальный шар,
stratum basale,
базальный слой.

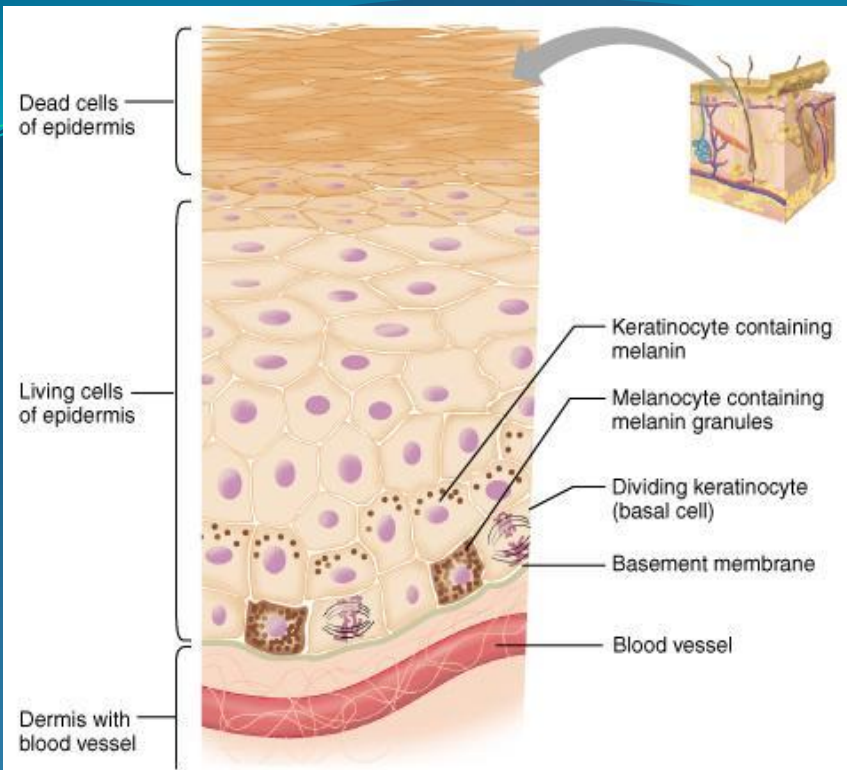
2. Шипуватий шар,
stratum spinosum,
шиповатый слой.

3. Зернистий шар,
stratum granulosum,
зернистый слой.

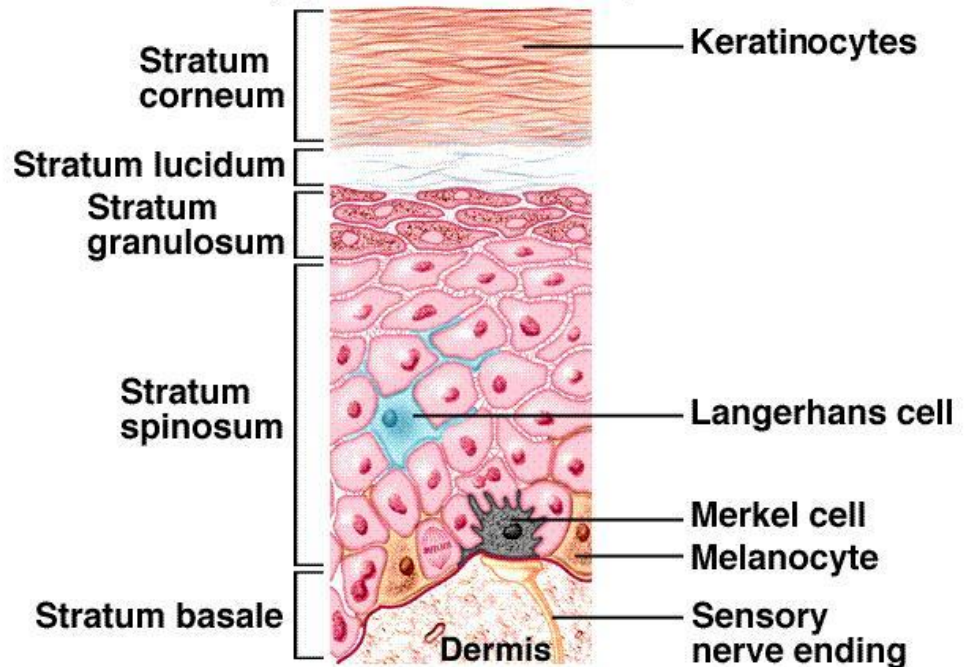
4. Блискучий шар,
stratum lucidum,
блестящий слой.

5. Роговий шар,
stratum corneum,
роговой слой.



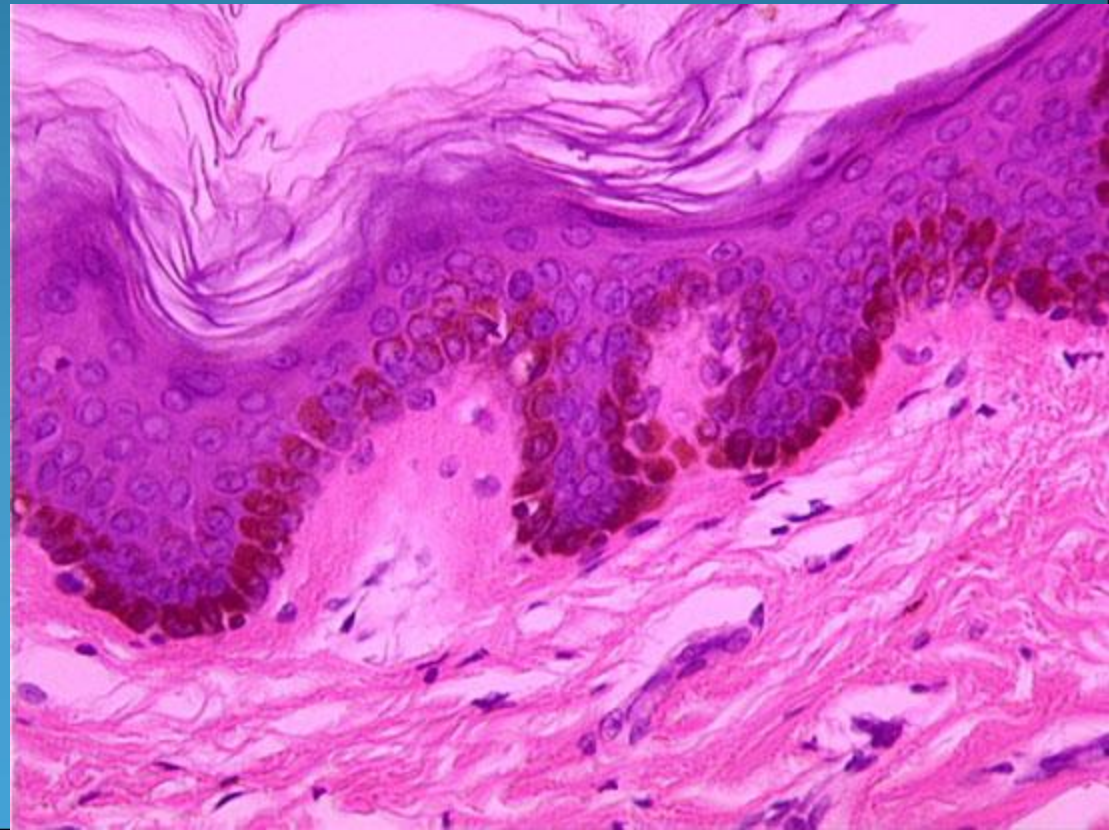
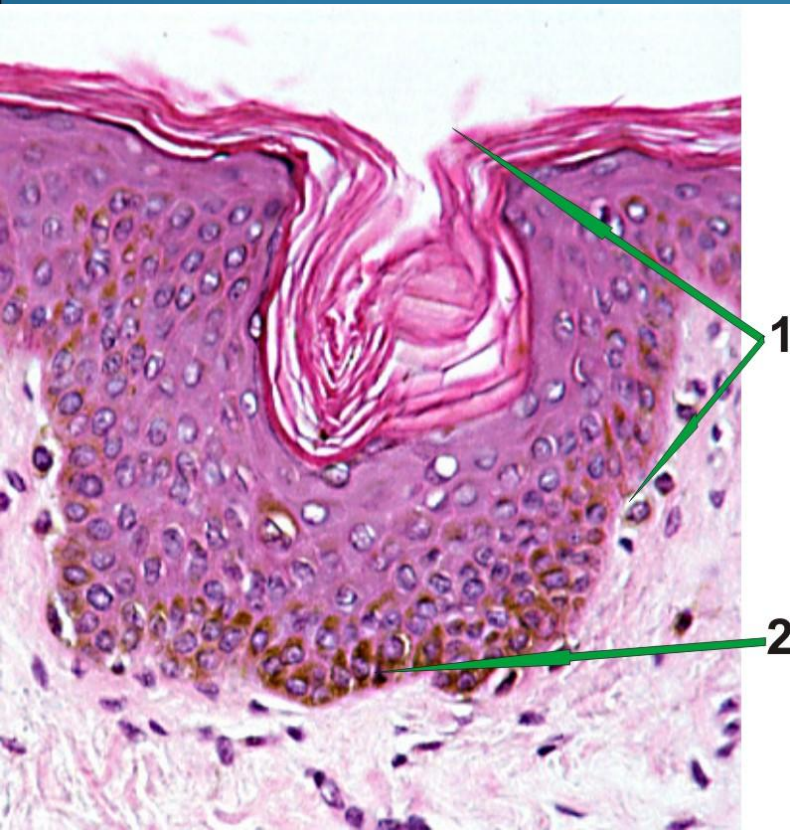


Cell Types of the Epidermis



1. Епідерміс, epidermis, эпидермис.

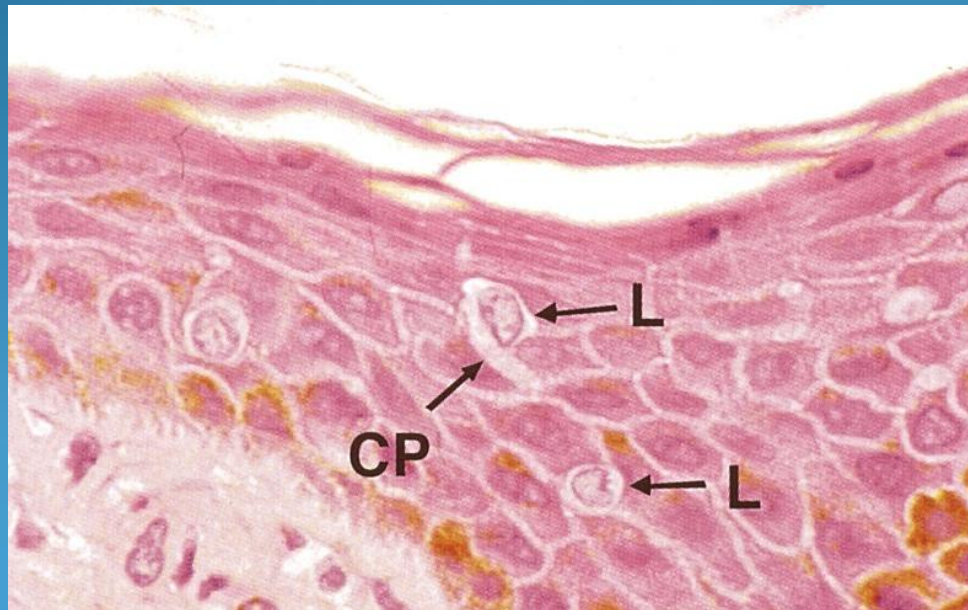
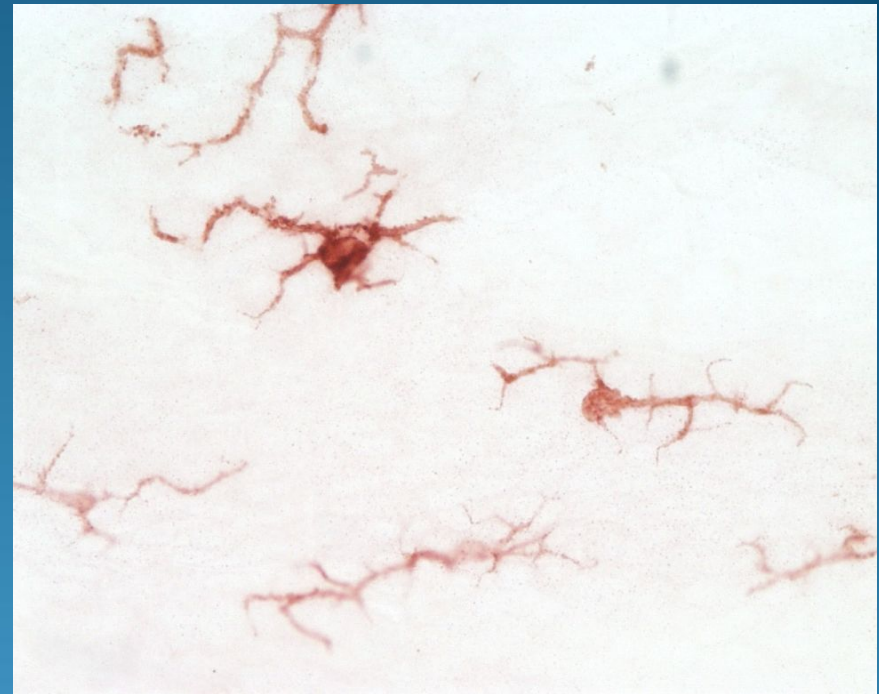
2. Пігментні клітини в епідермісі, pigment cells in the epidermis, пигментные клетки в эпидермисе.

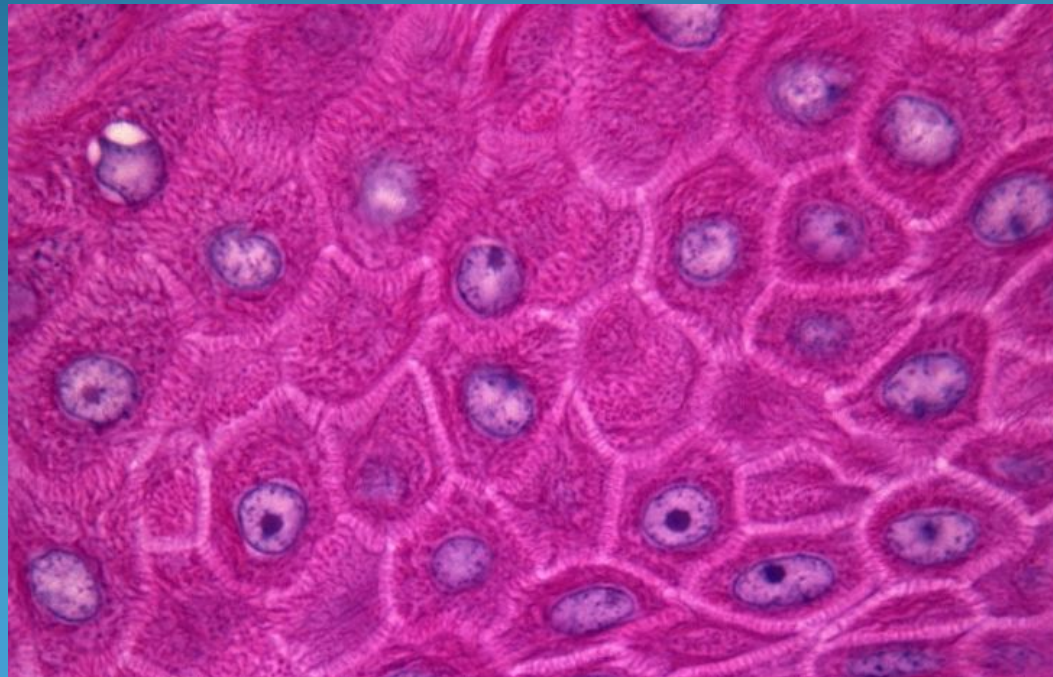


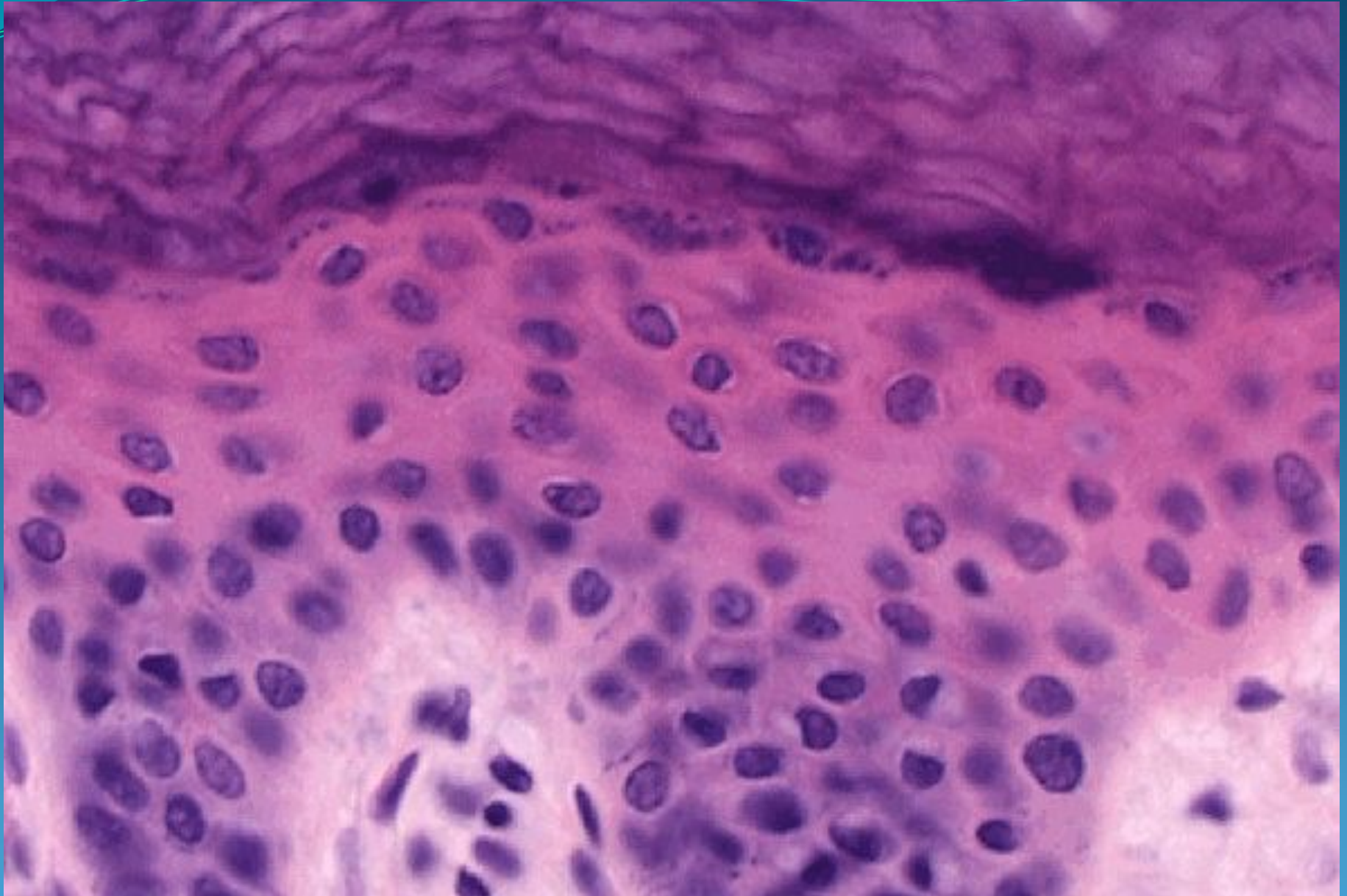
Melanocyte



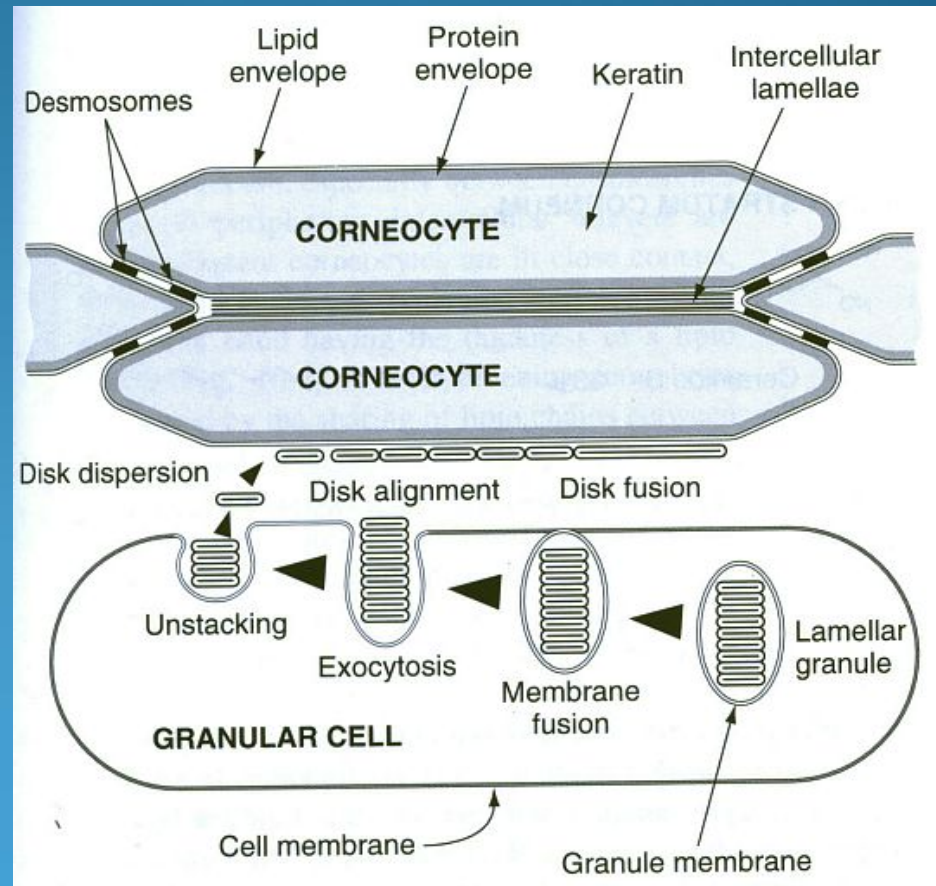
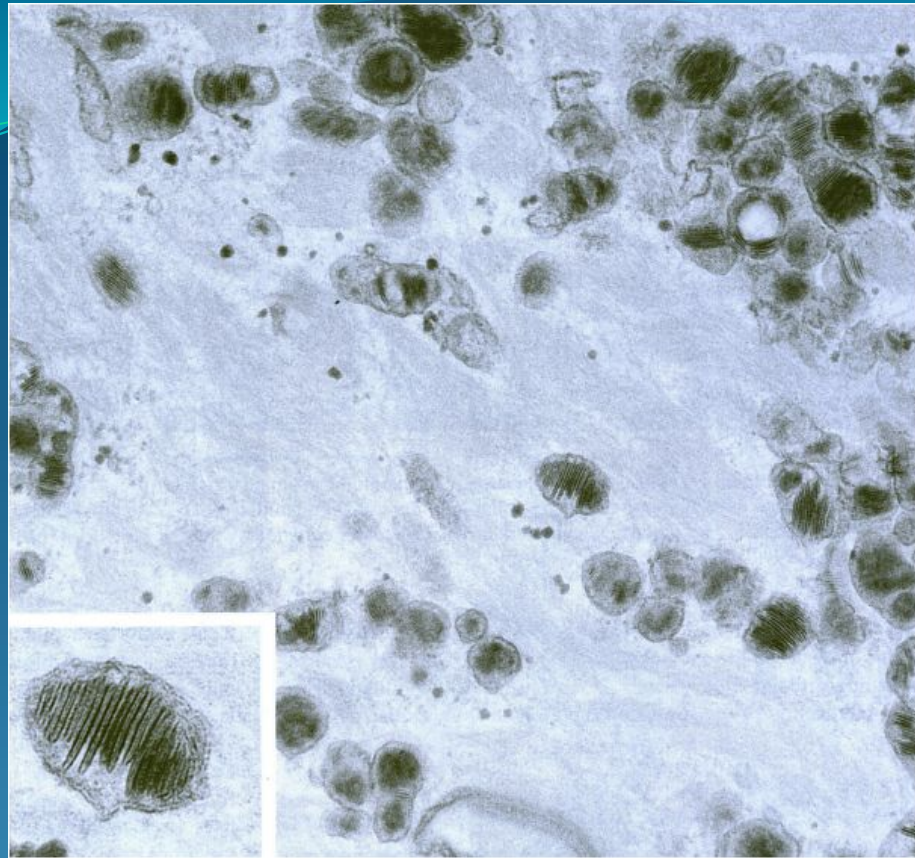
Langerhans' cells



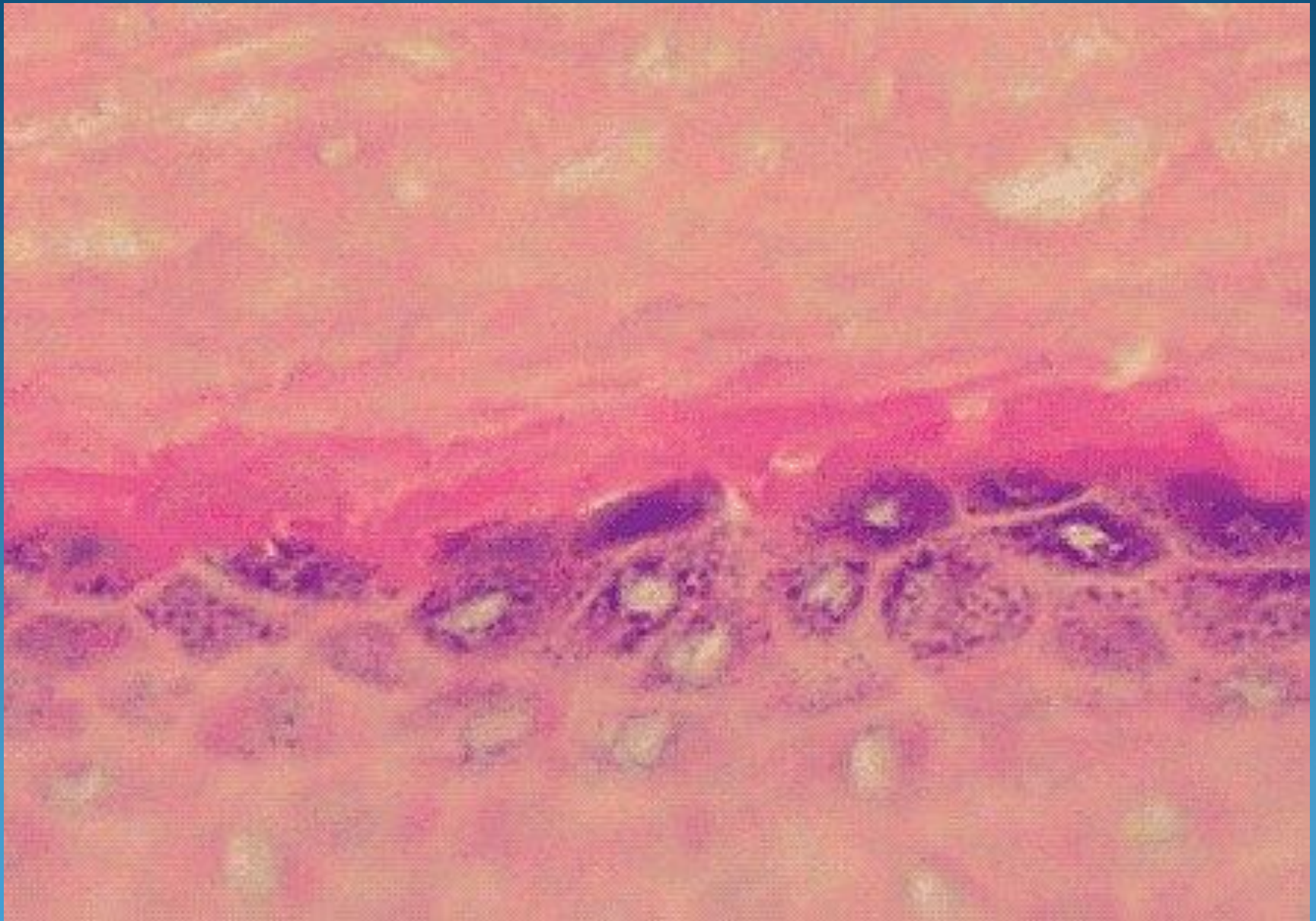




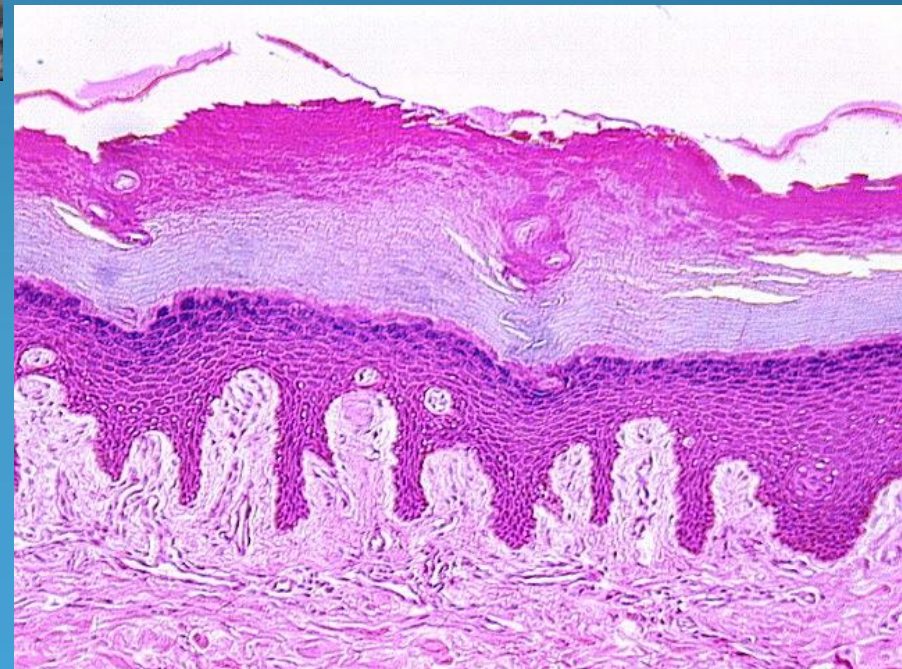
ЛИКПА КОЖА SKIN

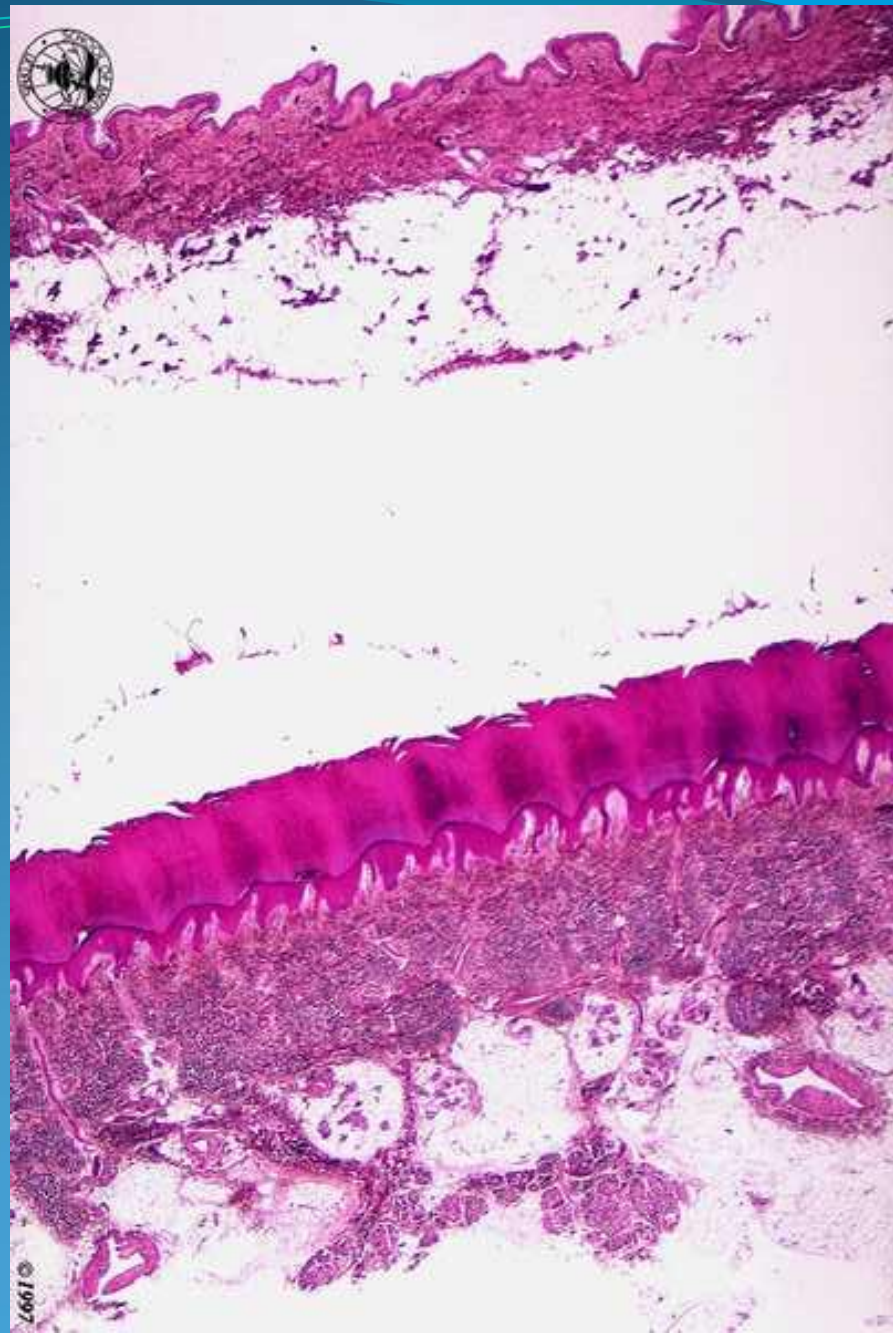


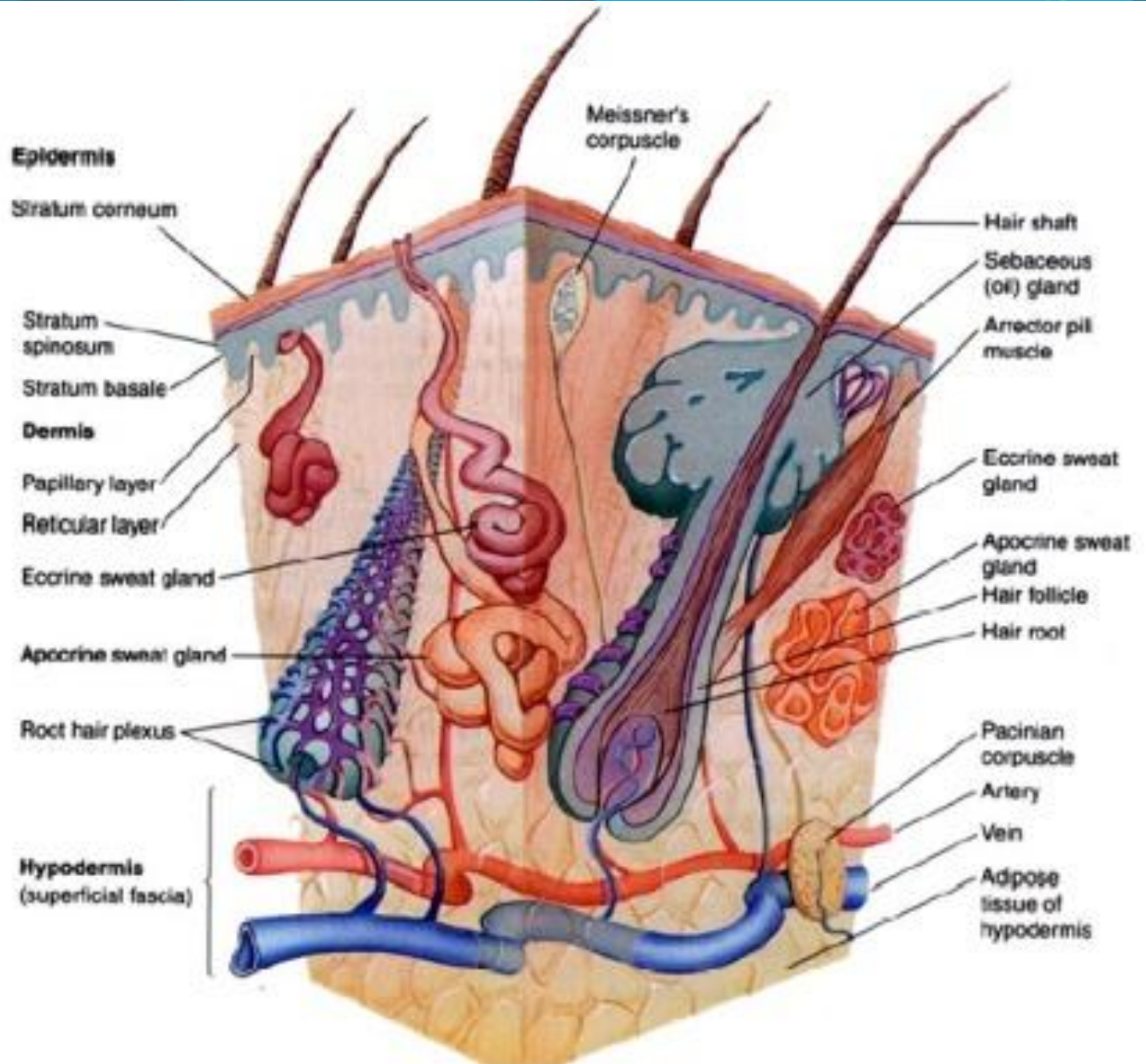
Stratum lucidum



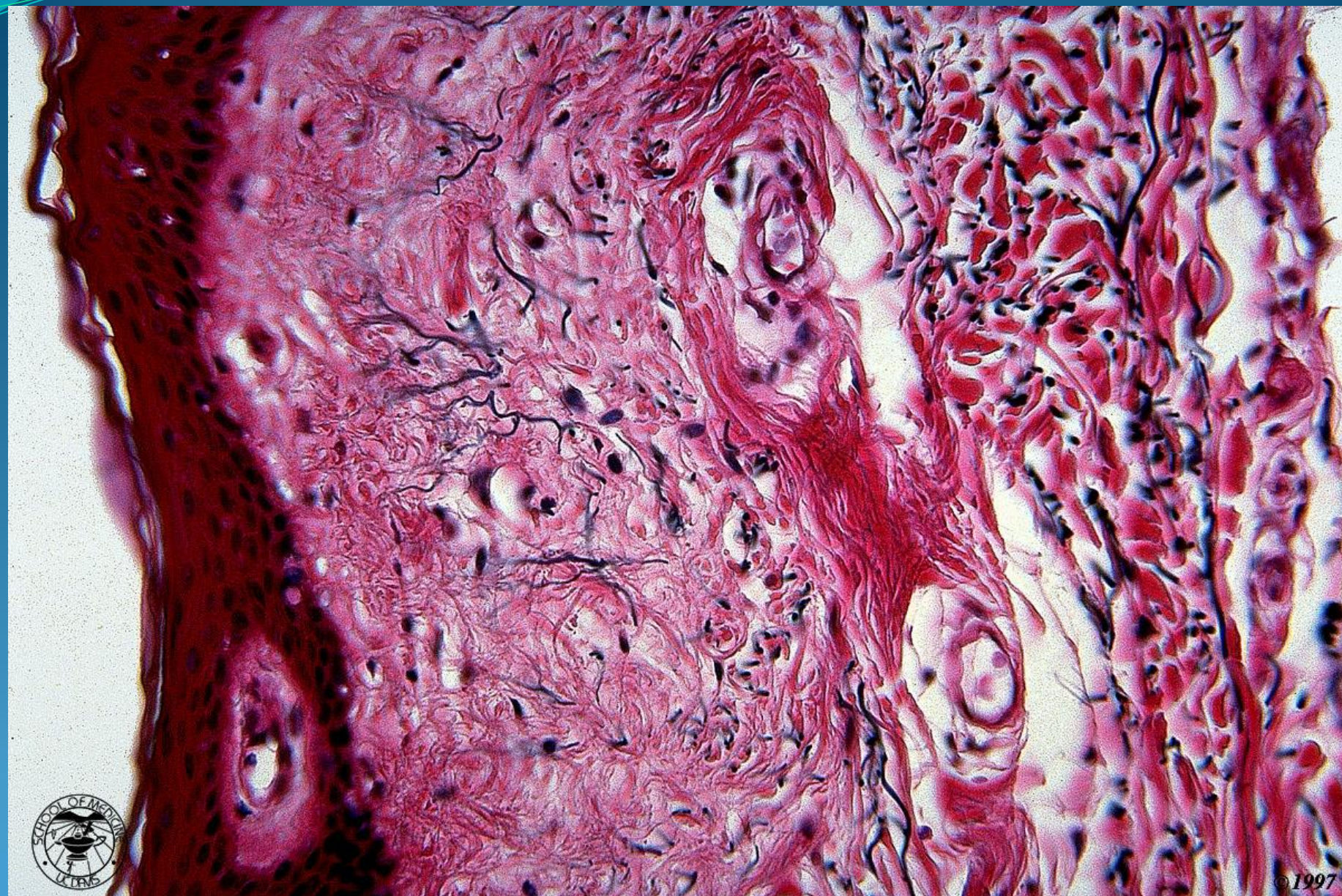
Stratum corneum







Papillary and reticular layer



ЛИКІПА КОЖА SKIN

Medulla (M)

Cortex (Cx)

Cuticle (Cu)

Connective Tissue (CT)

Dermal Papilla (DP) or Hair Papilla

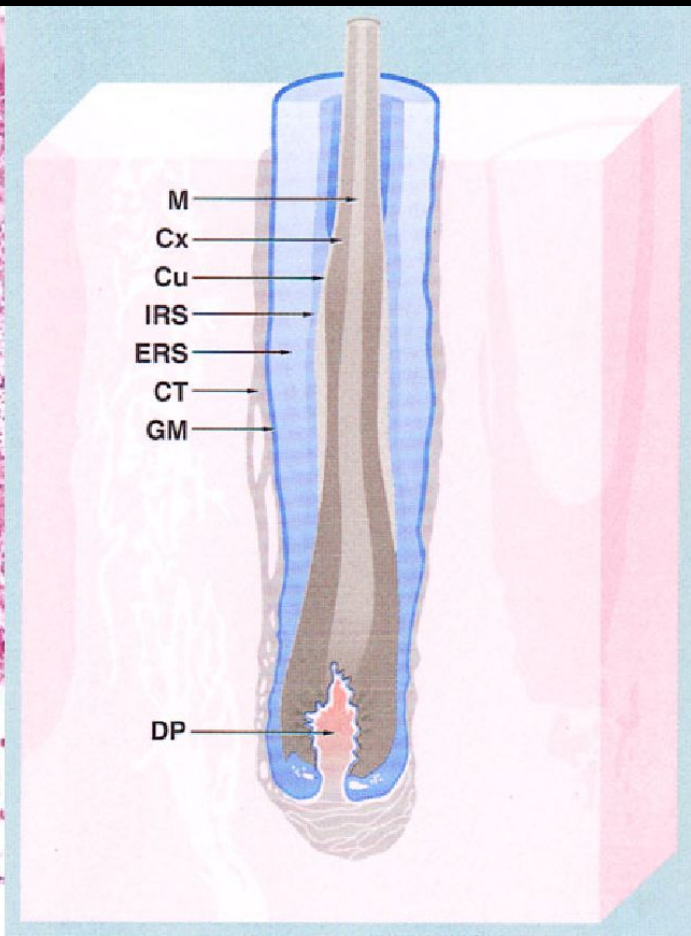
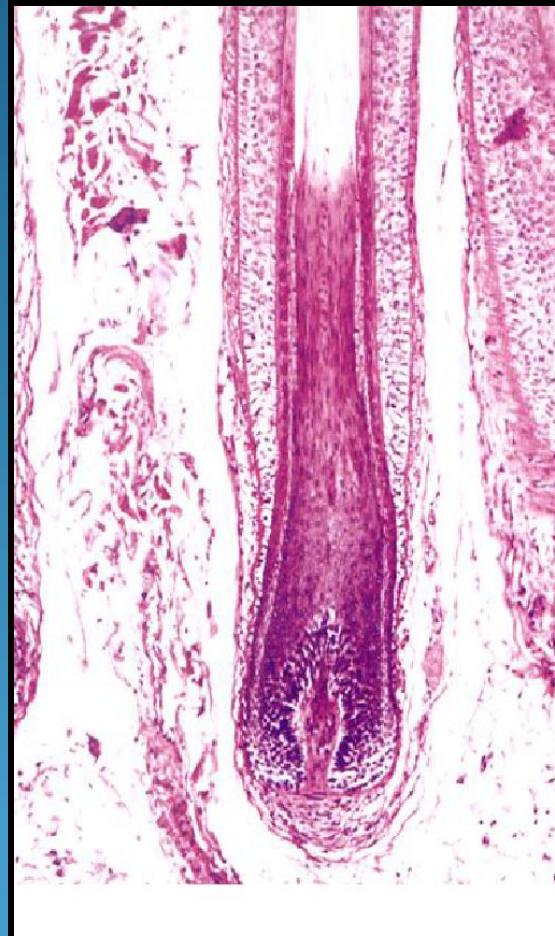
Five concentric layers of epithelial cells:

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

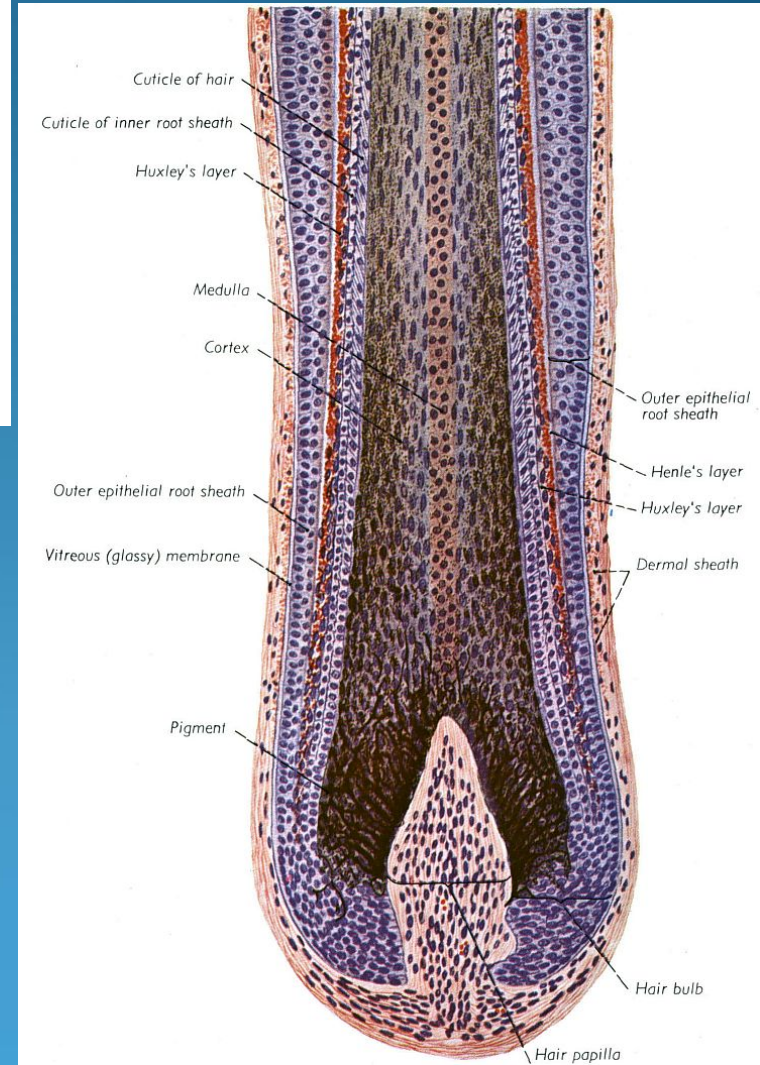
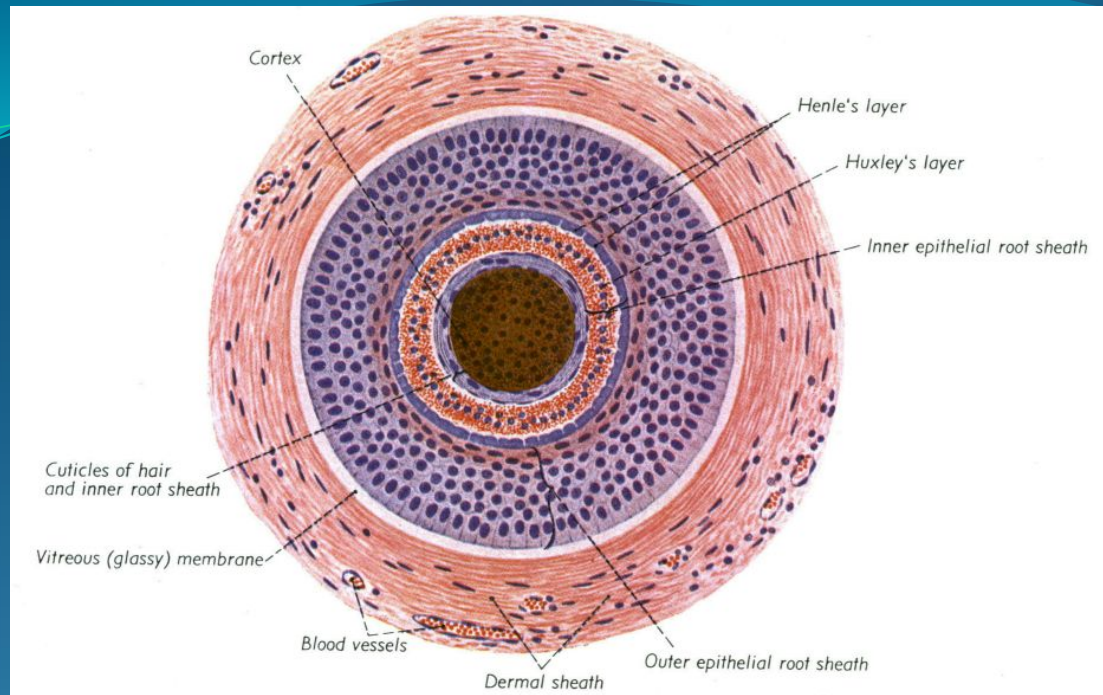
next layer is the cortex---bulk of hair

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

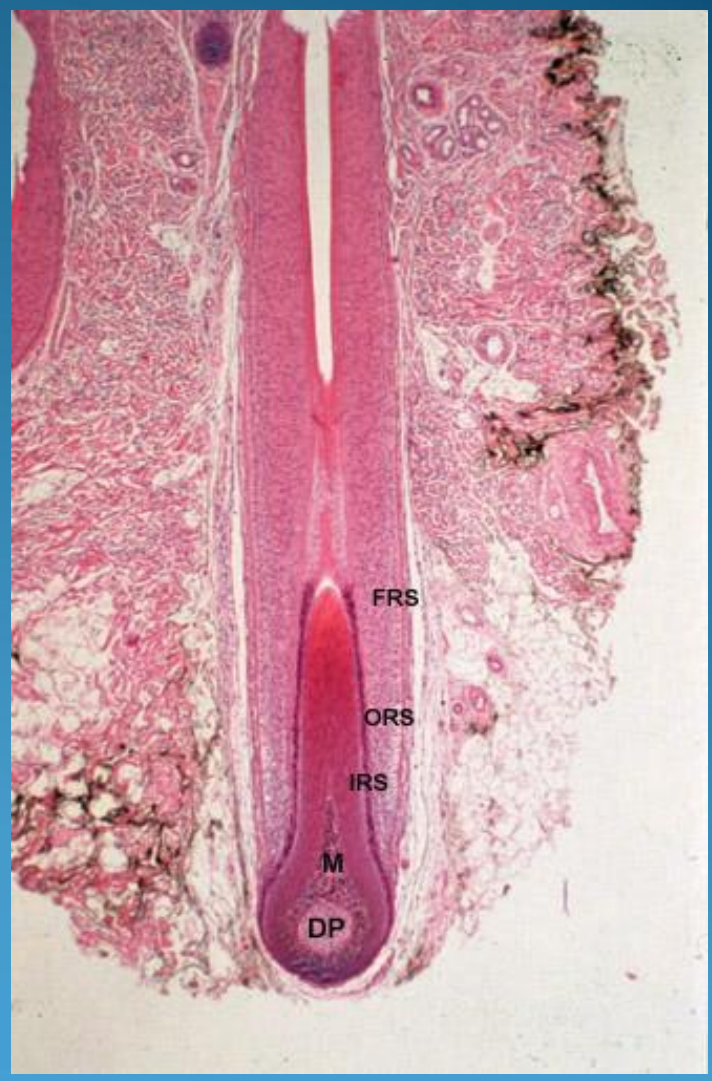
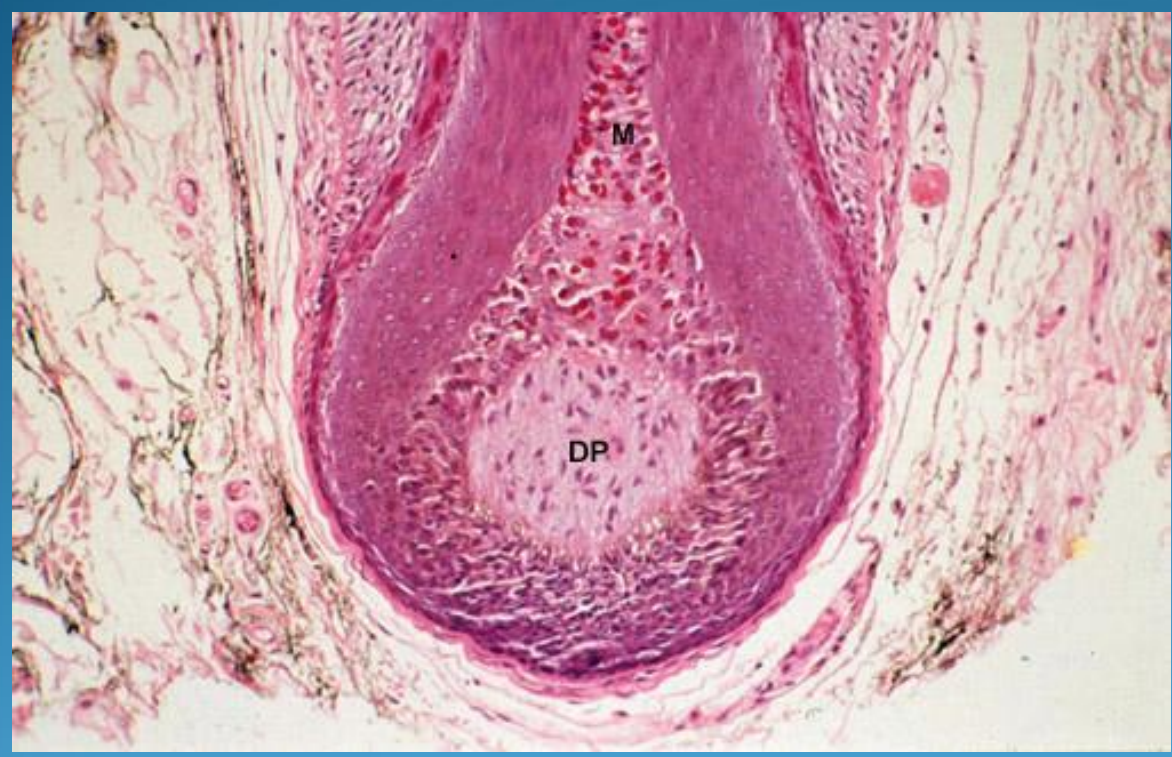
IRS/ERS---inner and external root sheath



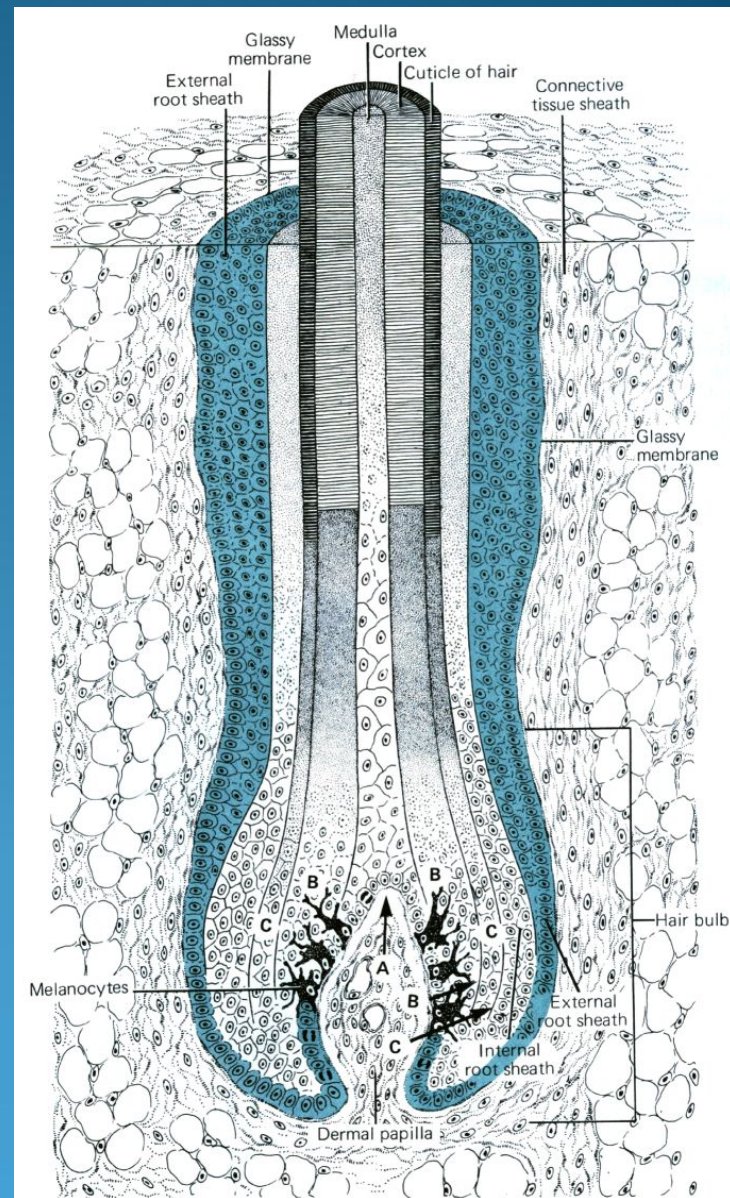
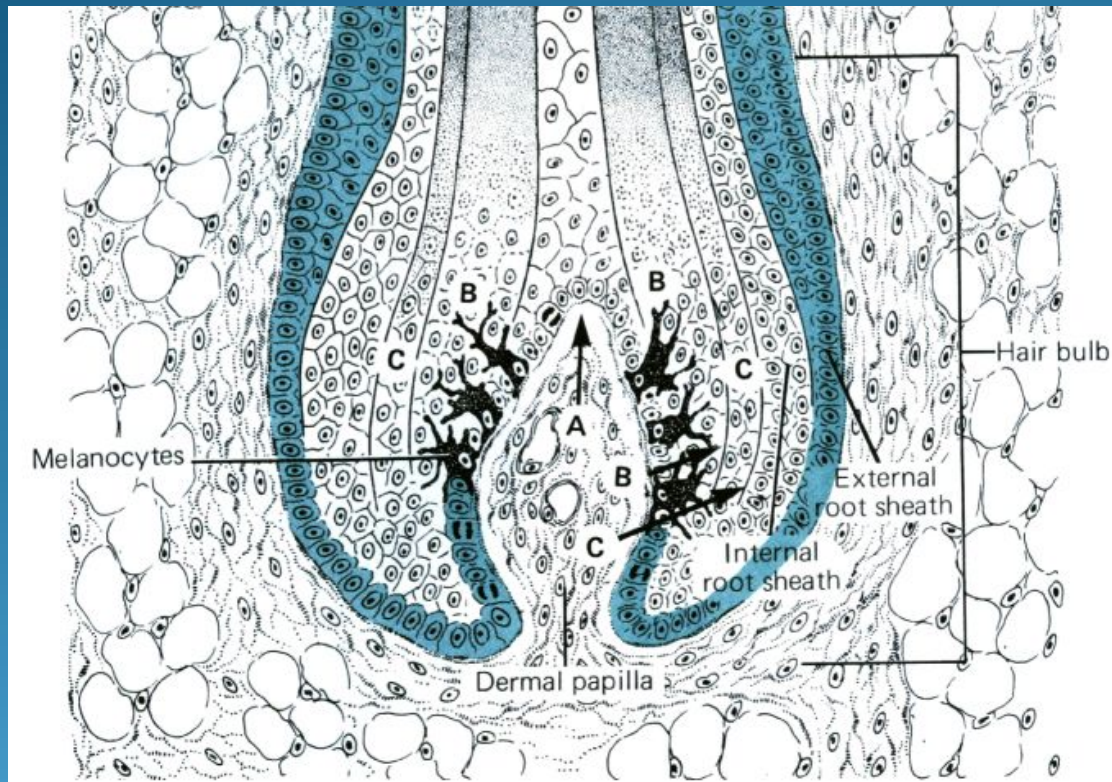
ЛИКІРА КОЖА SKIN

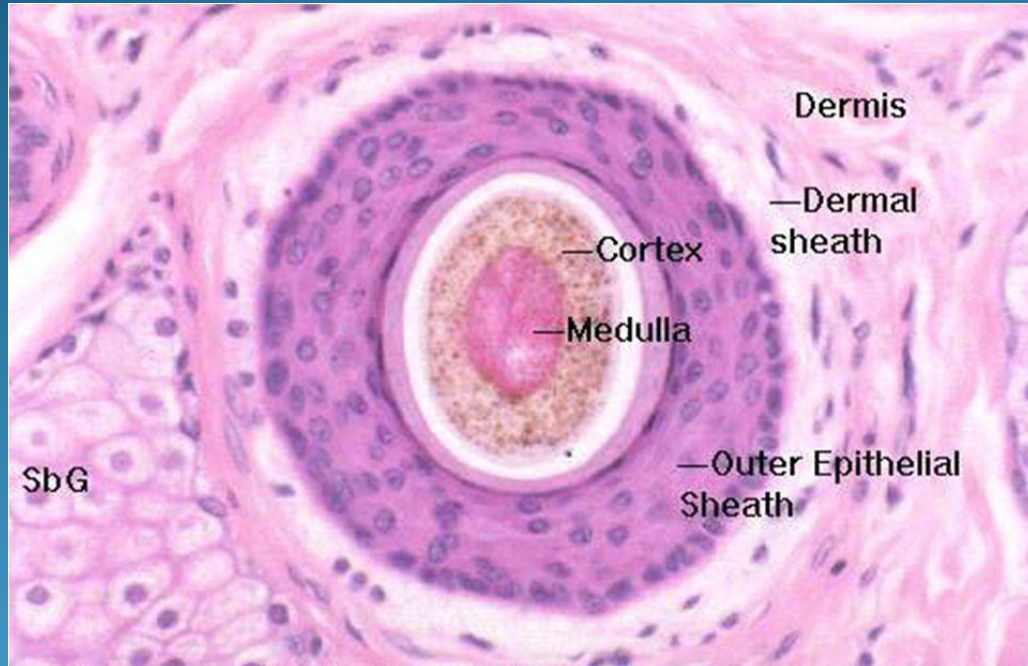


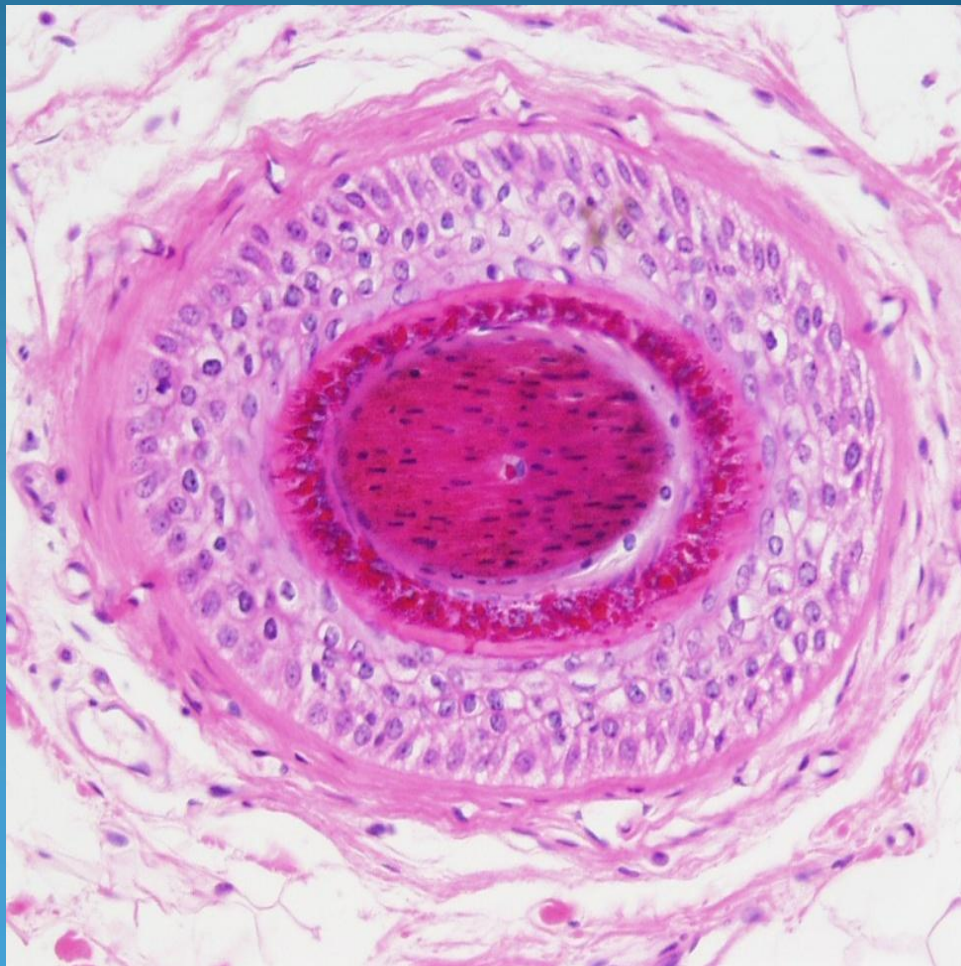
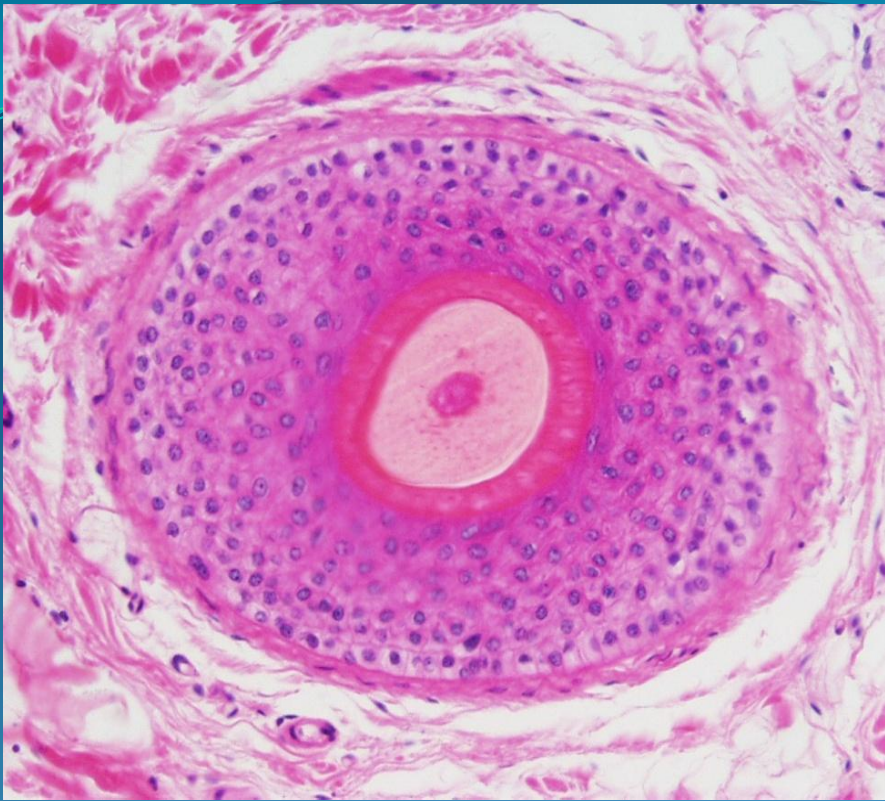
Hair follicle

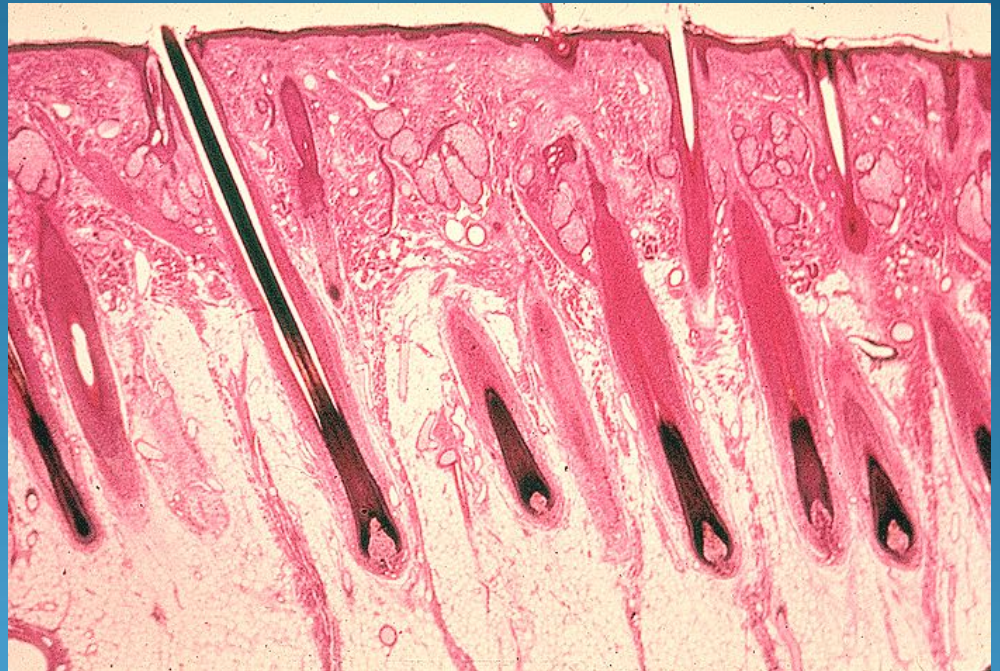
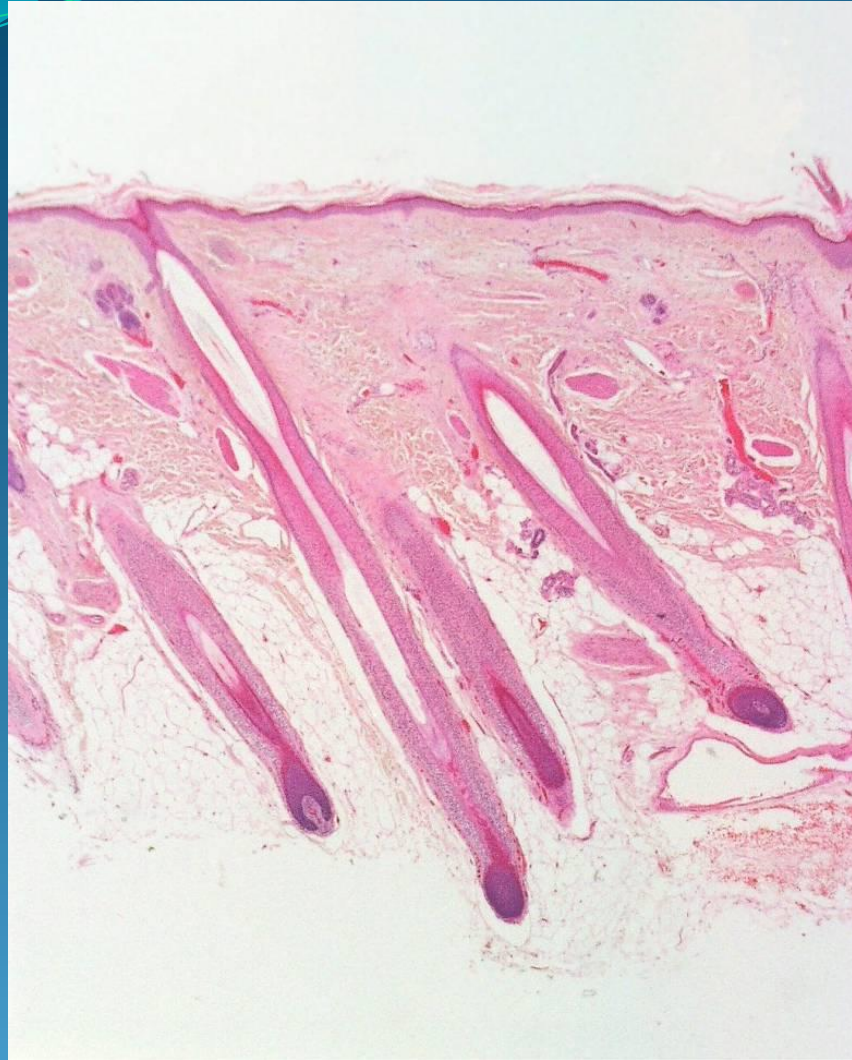


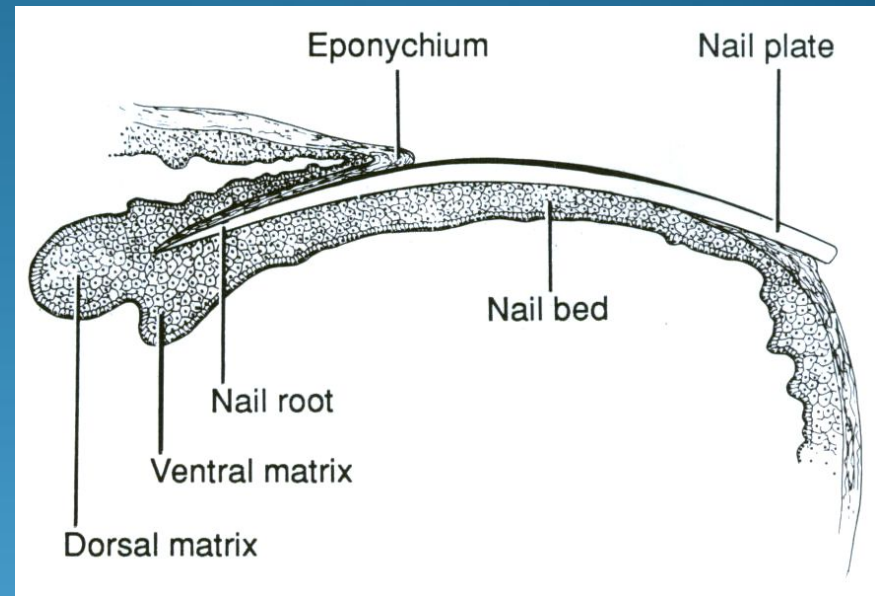
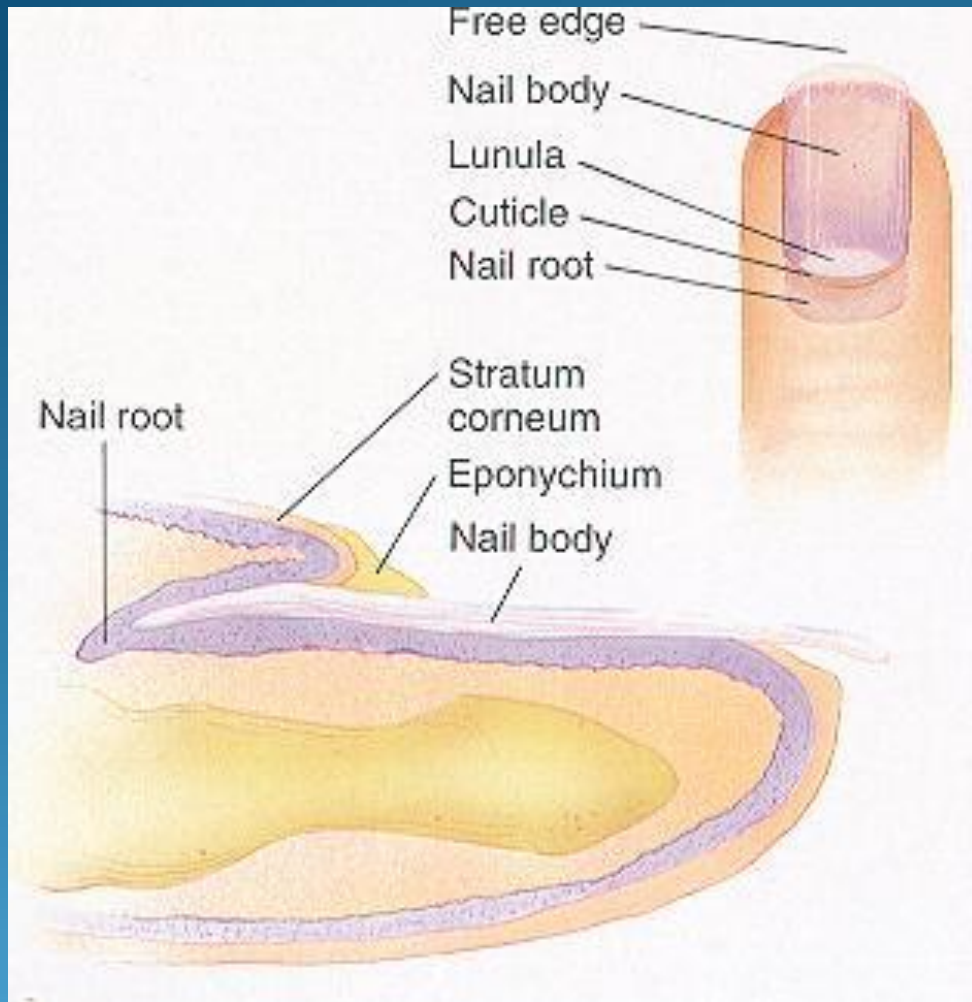
ЛИКІРА КОЖА SKIN



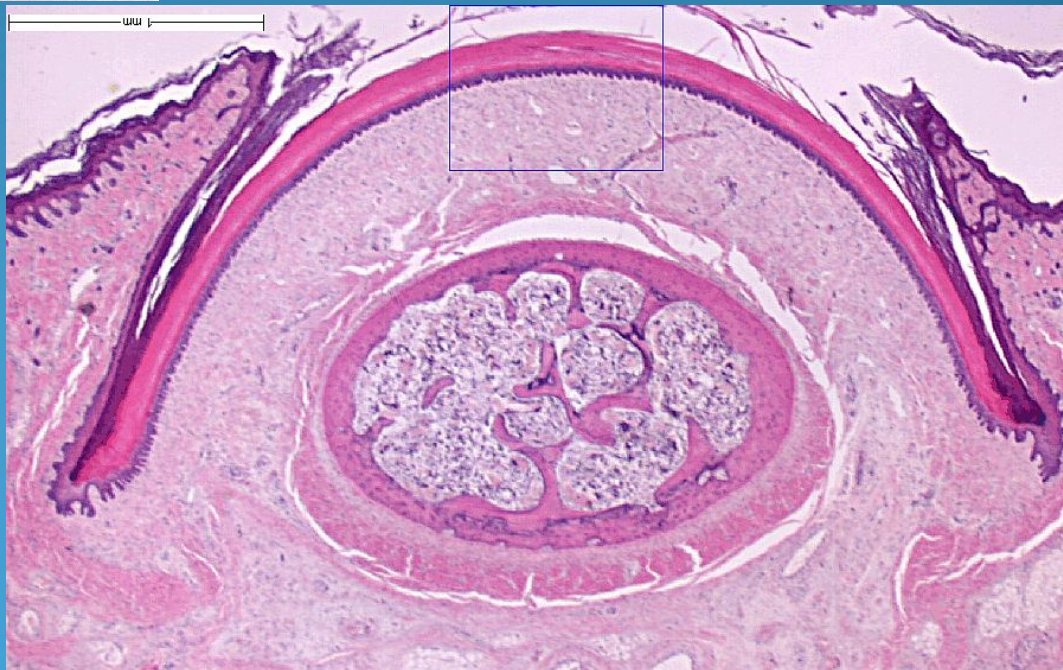




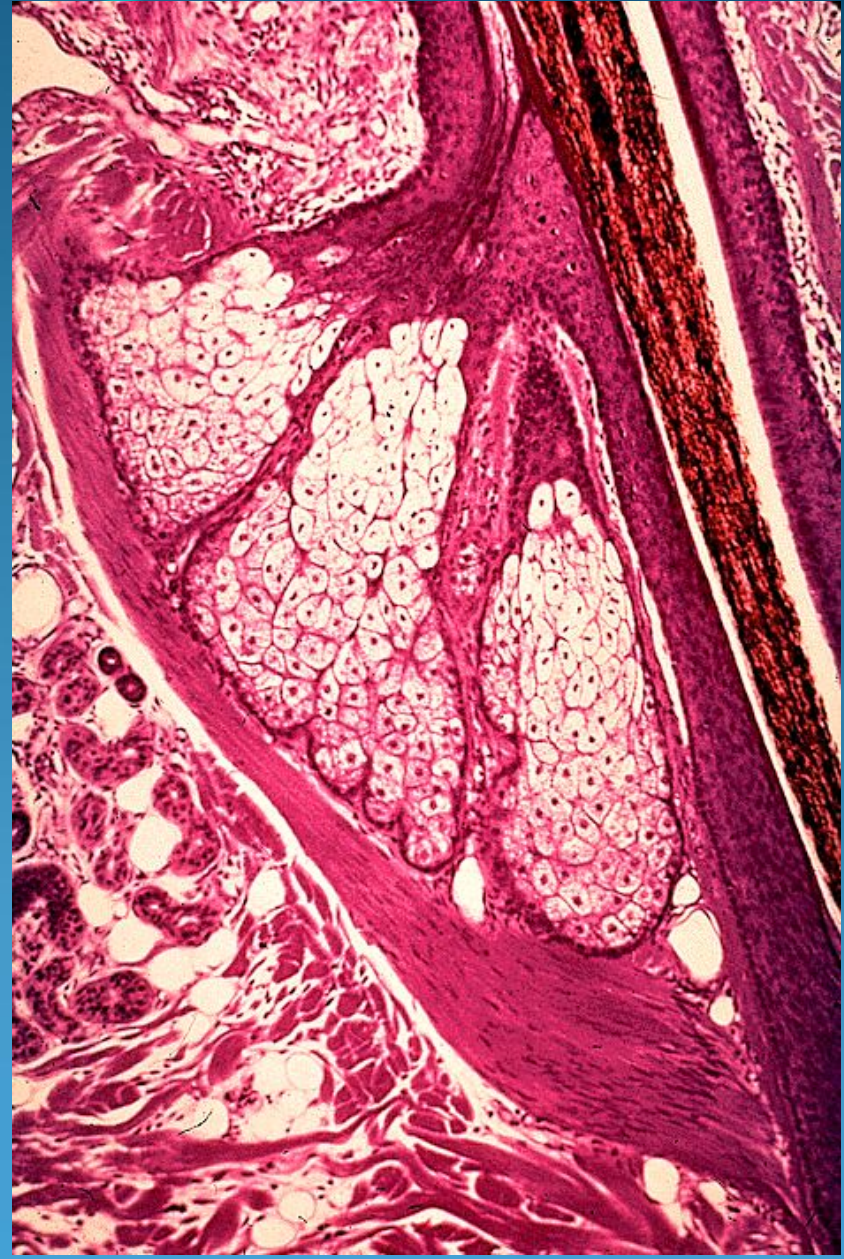
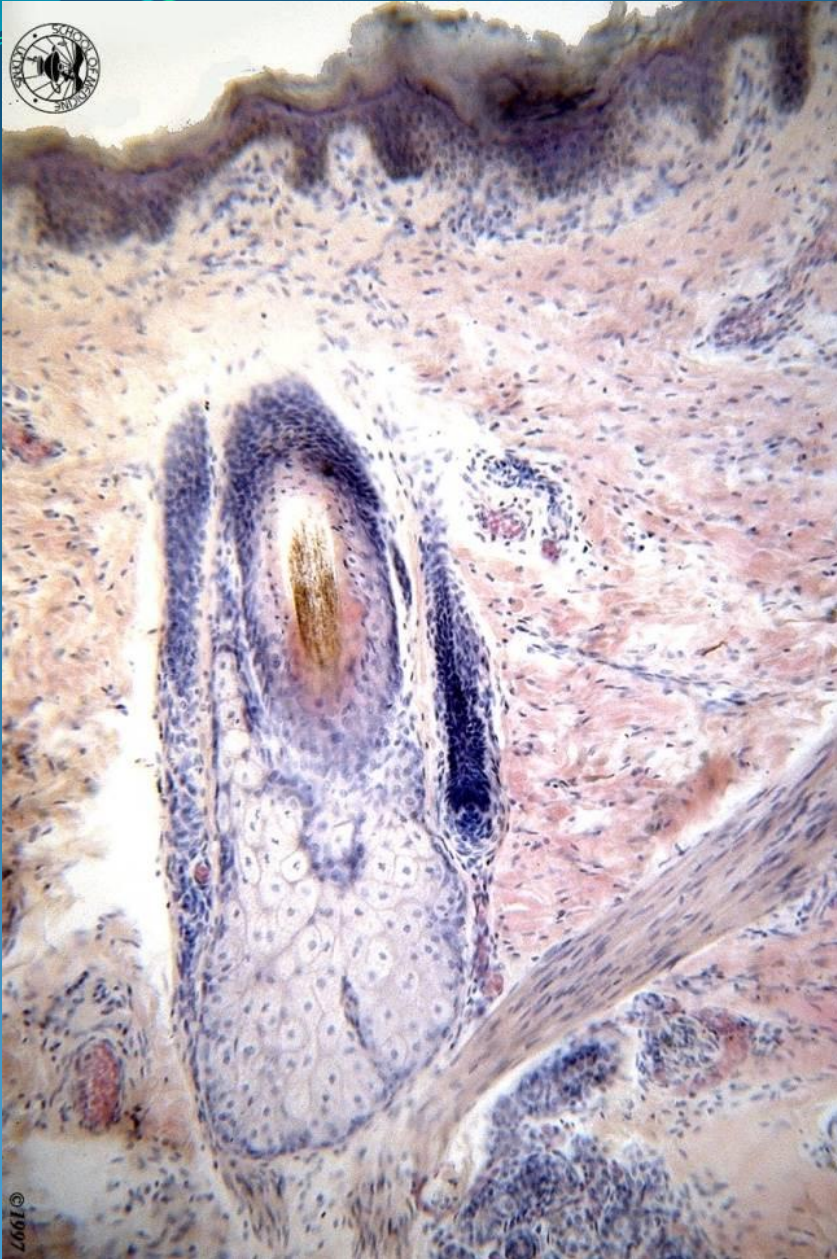




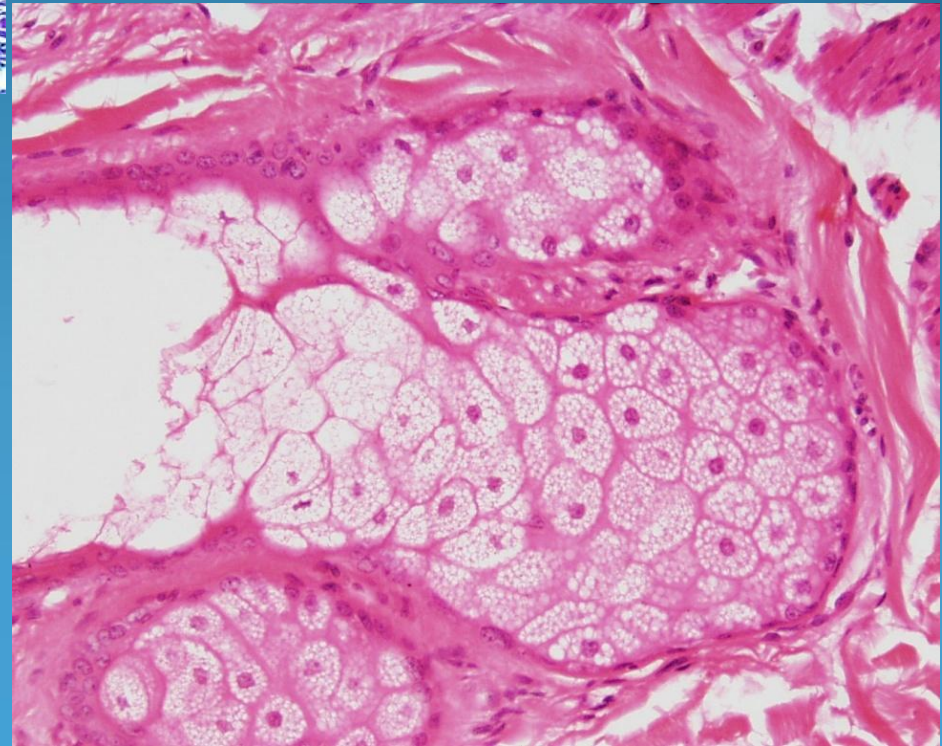
IIIKIPPA KOЖA SKIN



Sebaceous gland



ШКИРА КОЖА SKIN





Duct Epithelium:

Cl Channel: CFTR

Secretory Epithelium:

Na⁺ Channels: ENaC/DEG

K⁺ Channels: IK Family

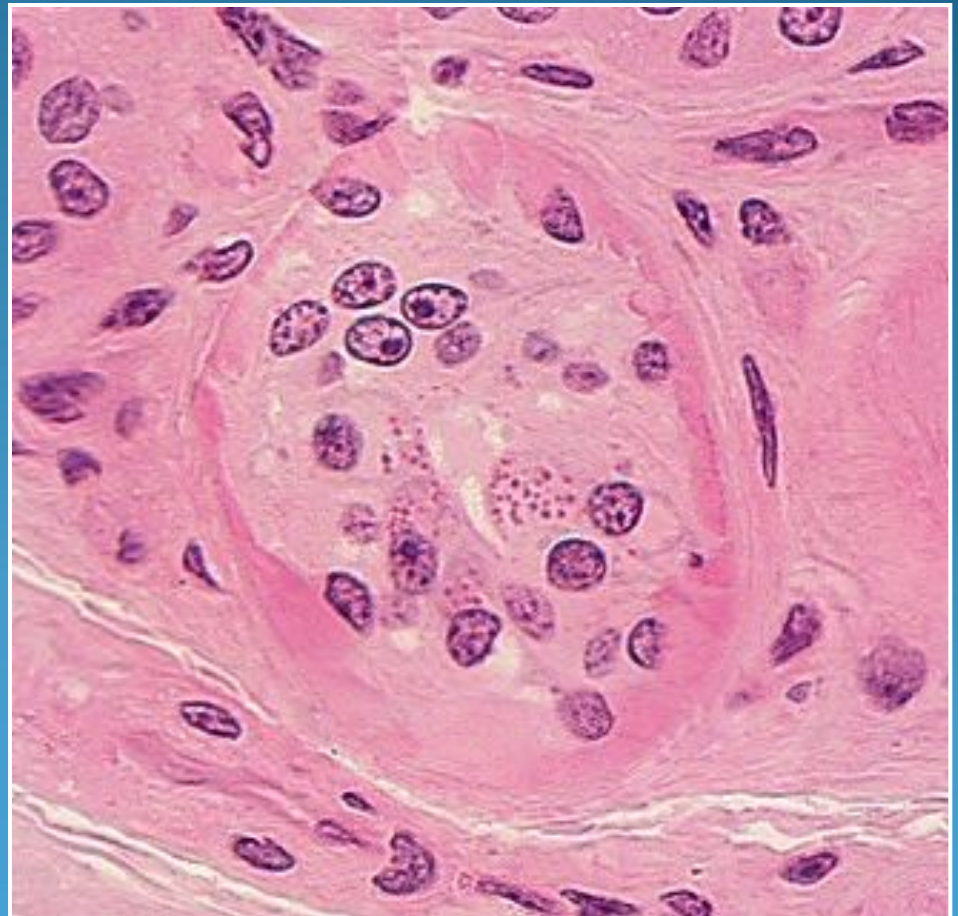
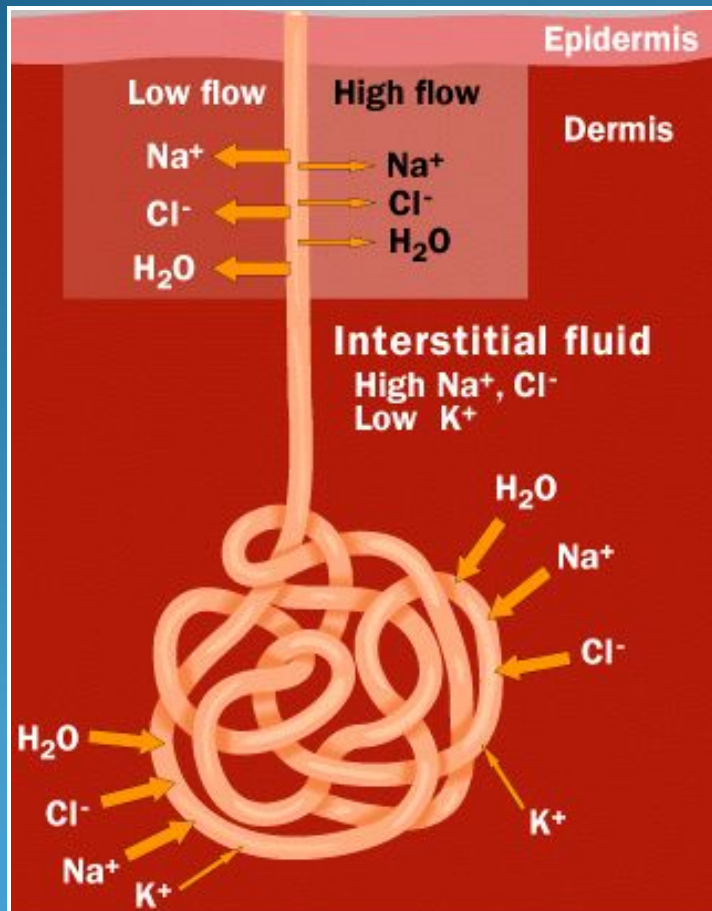
Cl⁻ Channels: CaCC Family

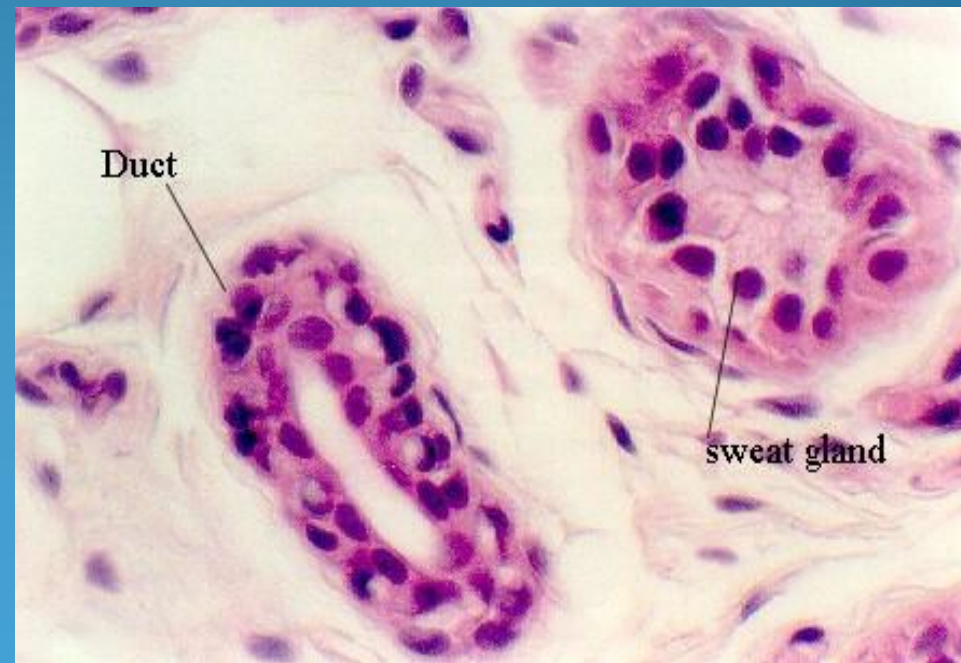
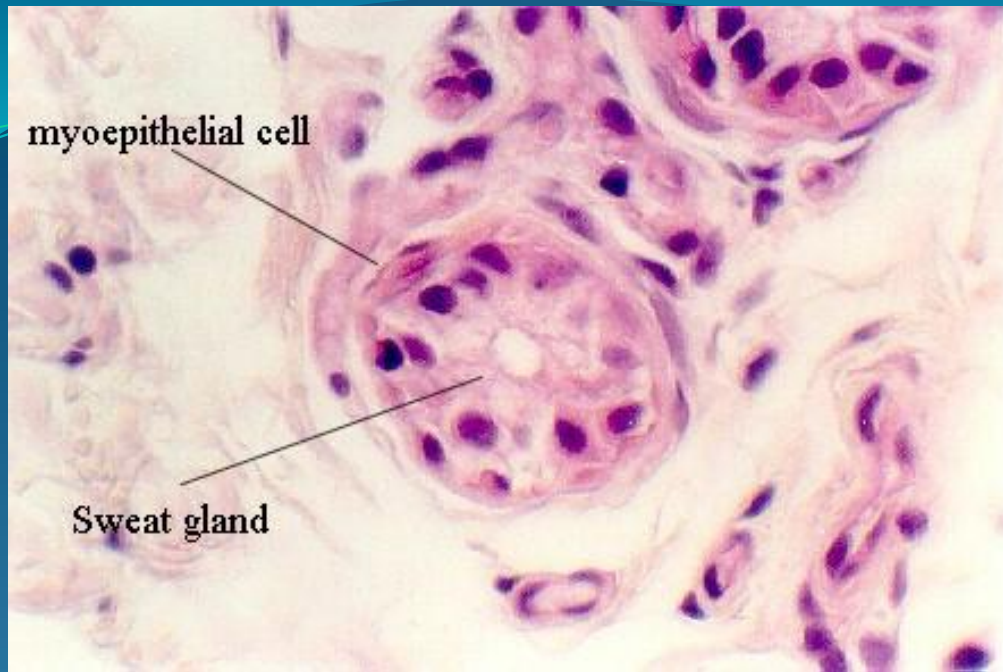
Sweat Gland (Secretory)

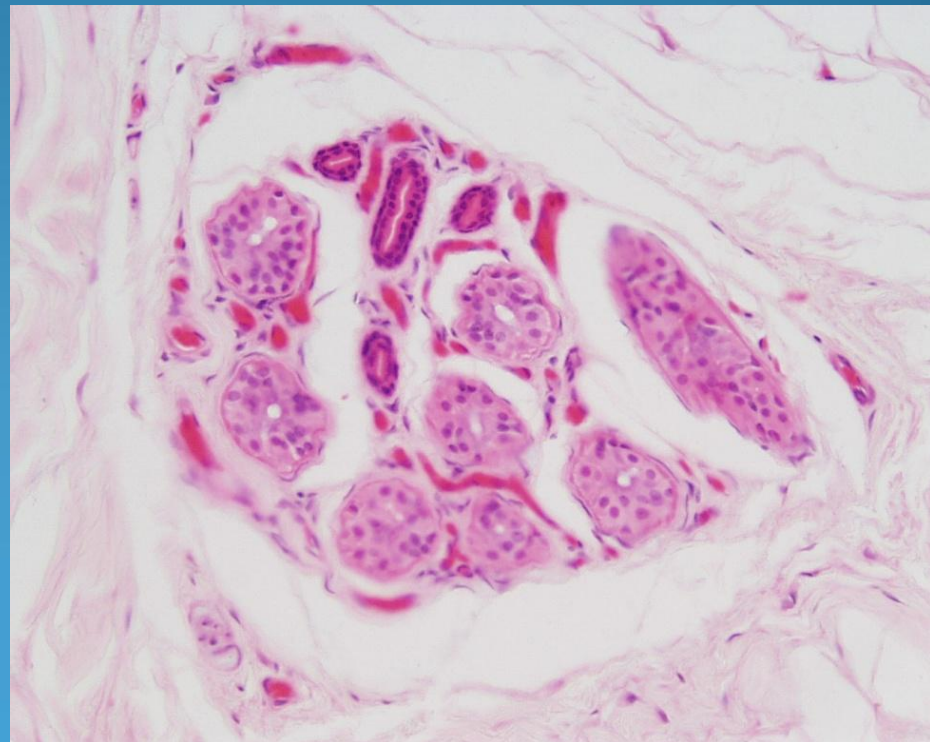
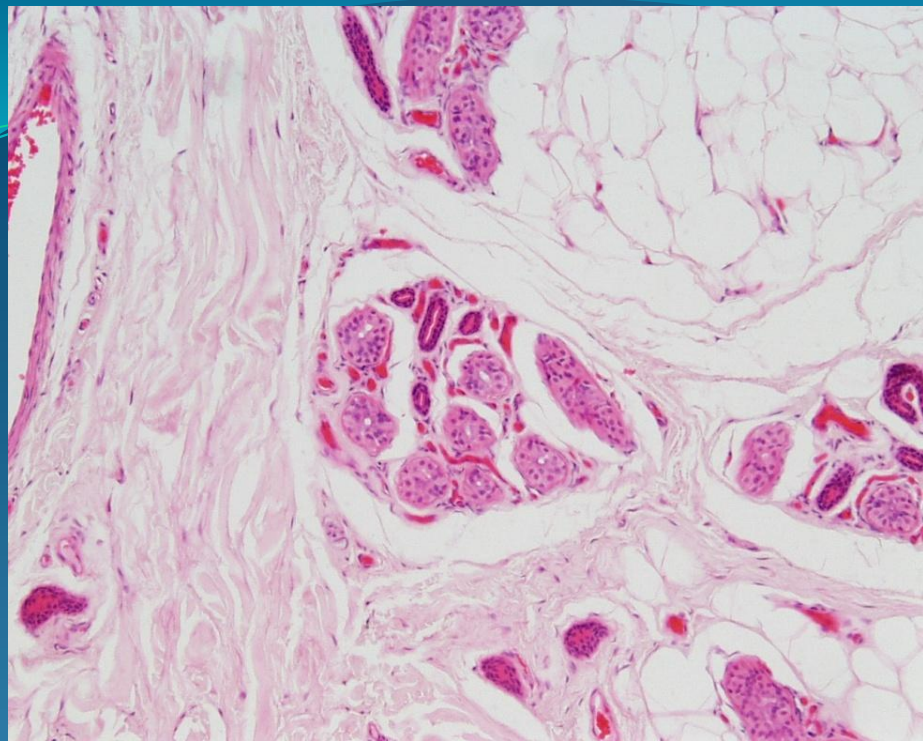
Clear cells: salt/fluid

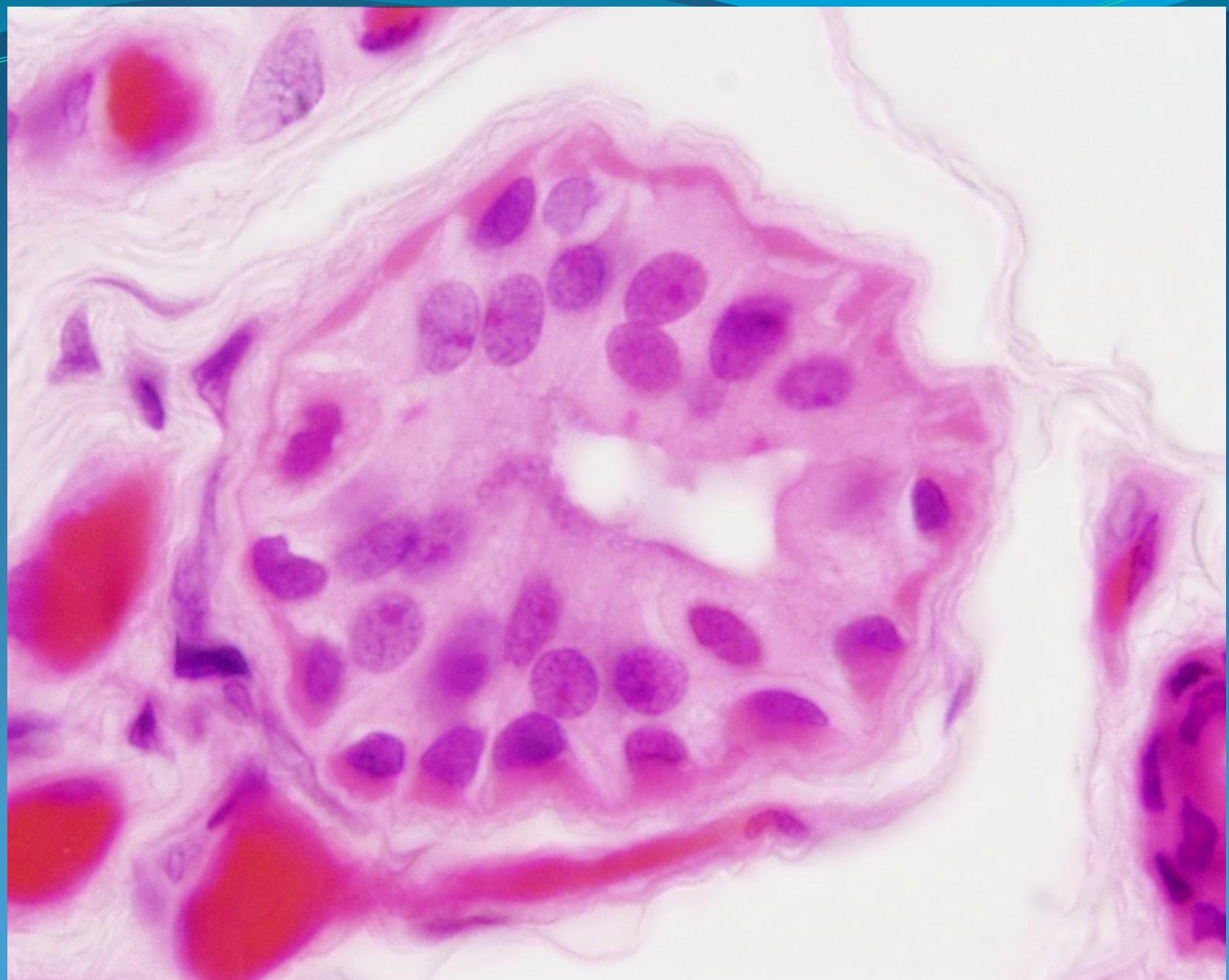
Dark Cells: secretory granules

glycoprotein





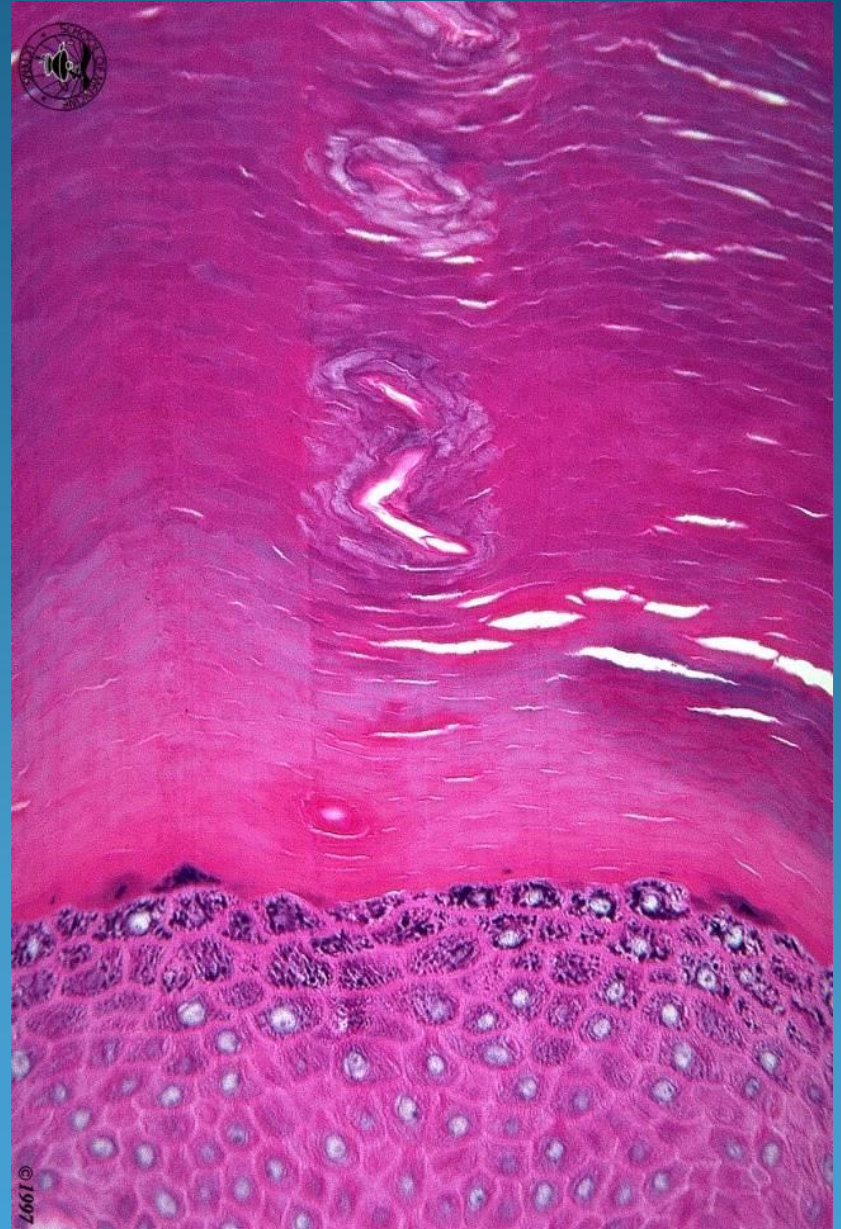
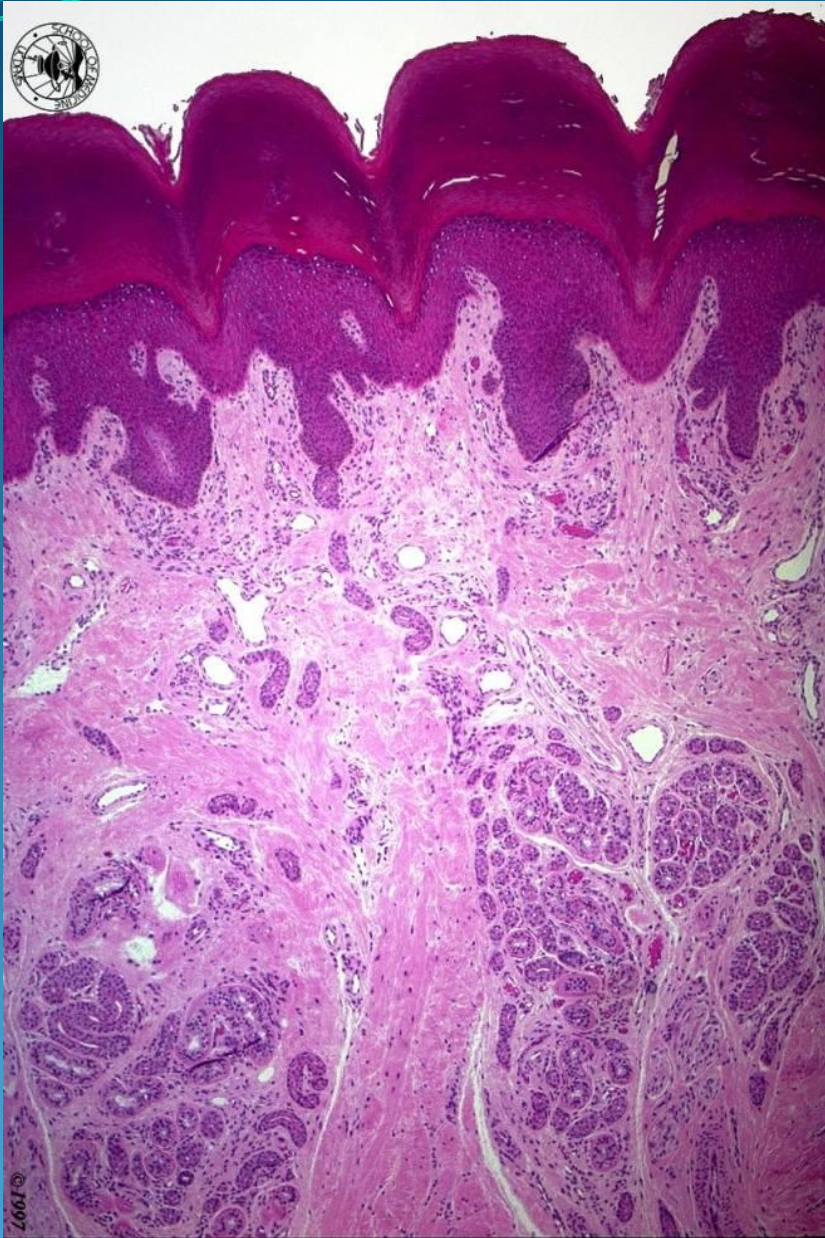


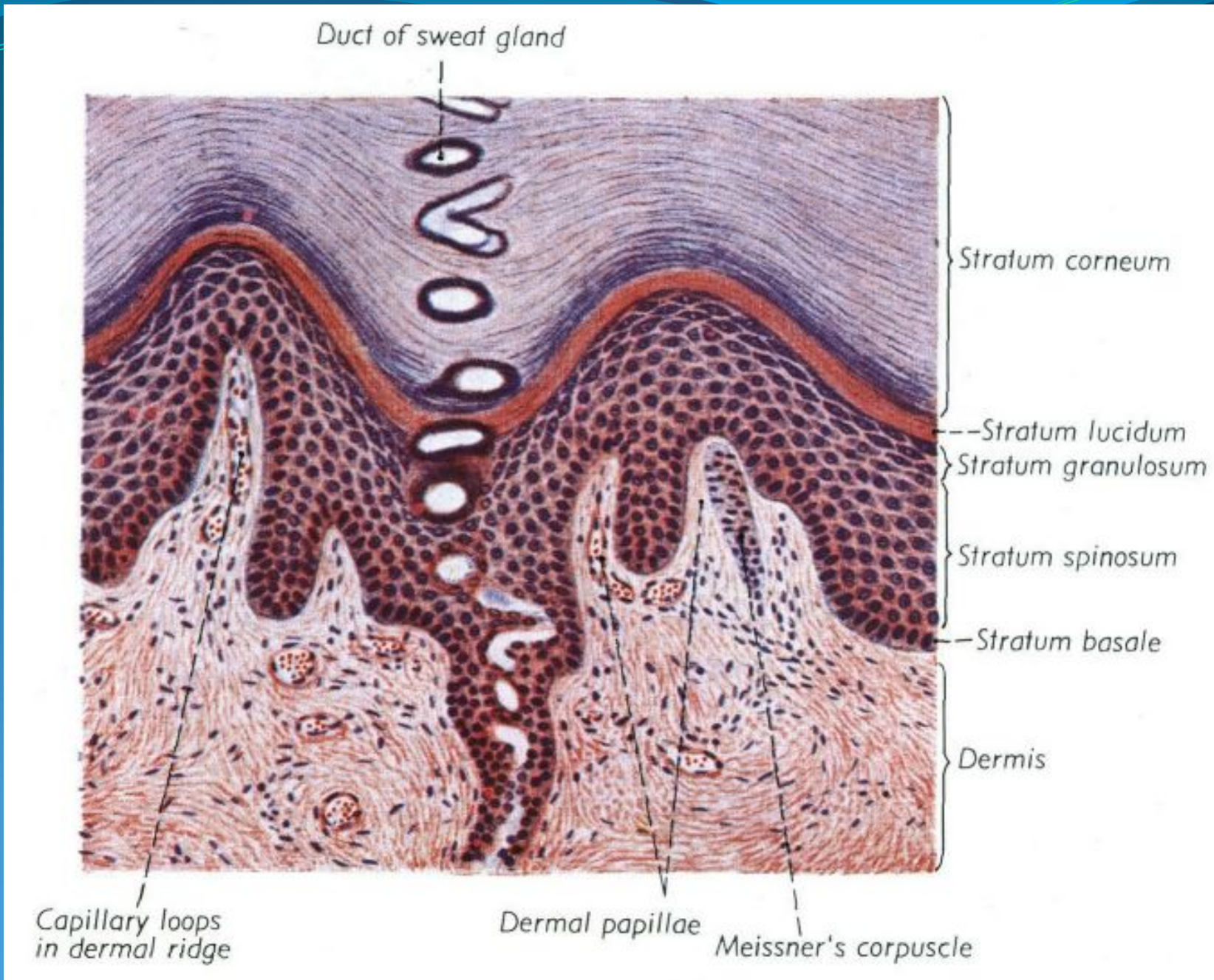


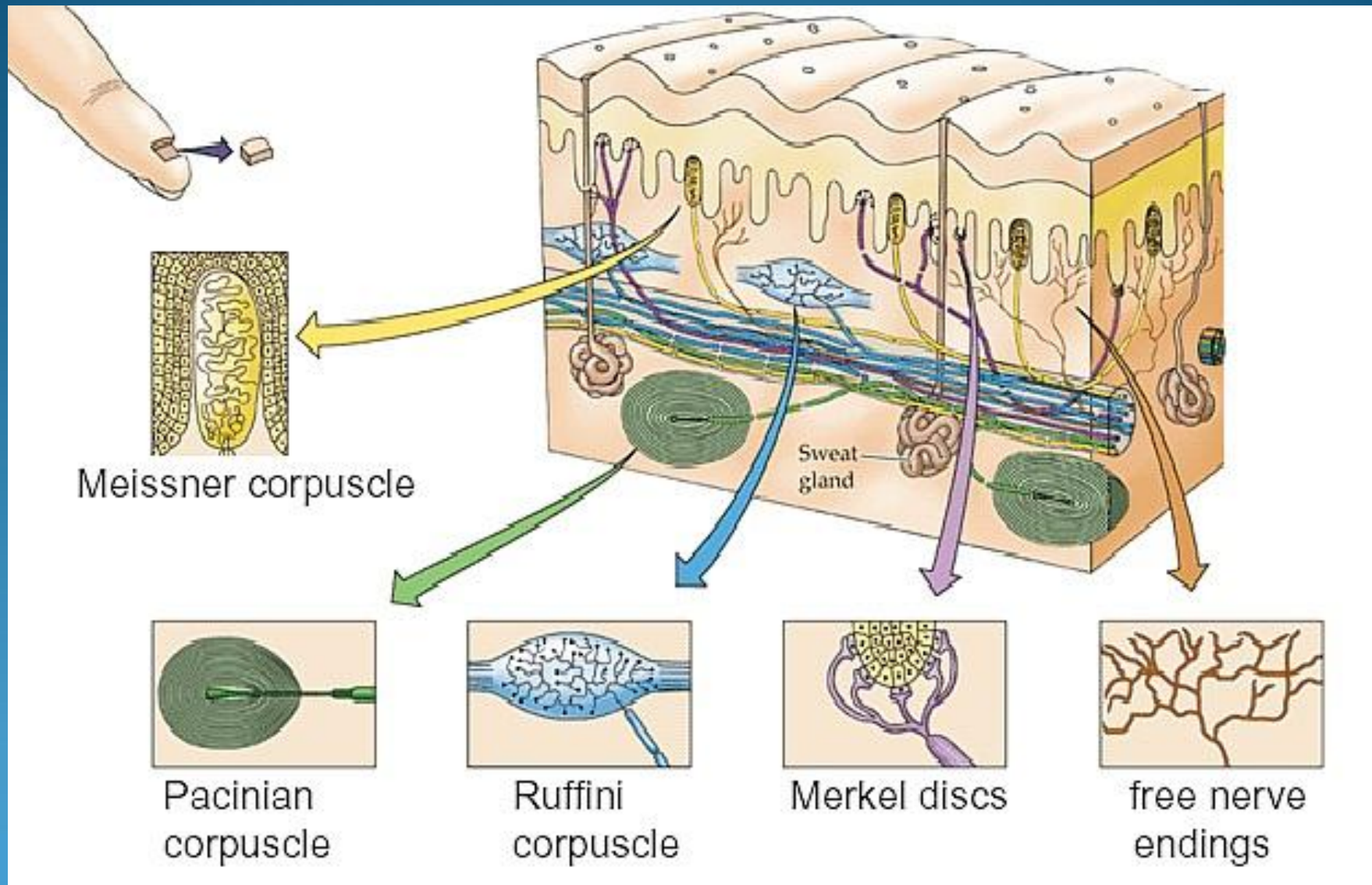
Apocrine glands

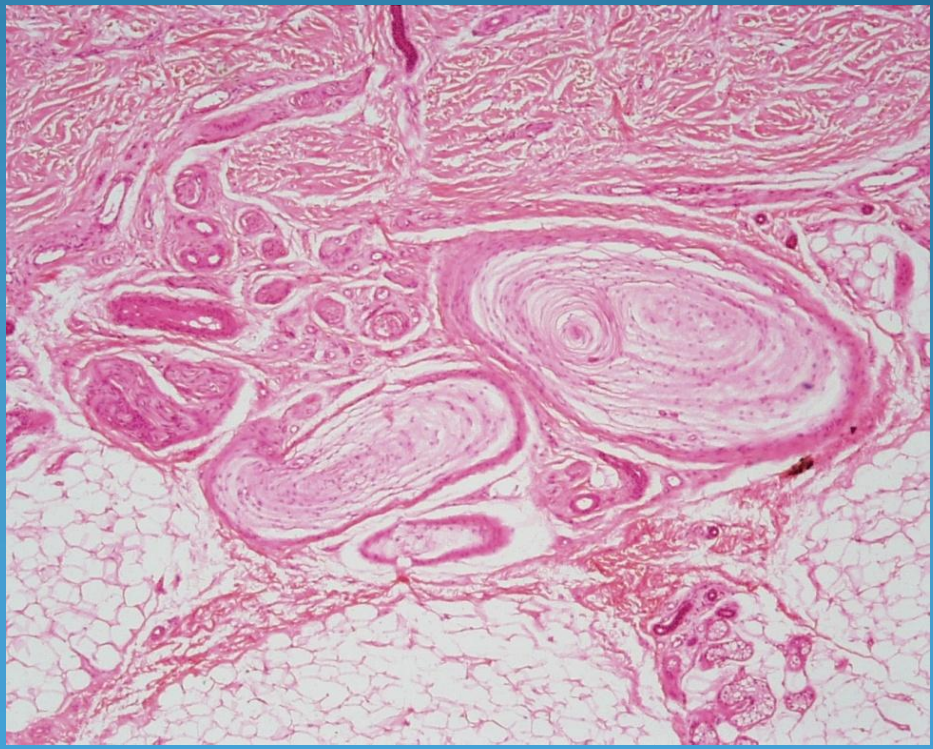
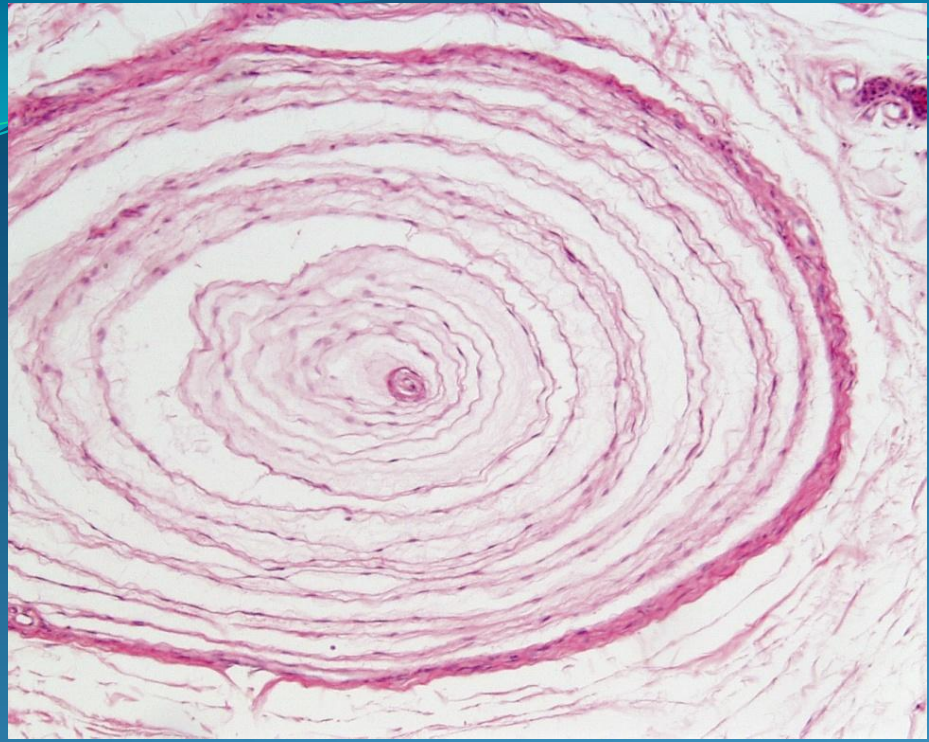


Duct of merocrine gland

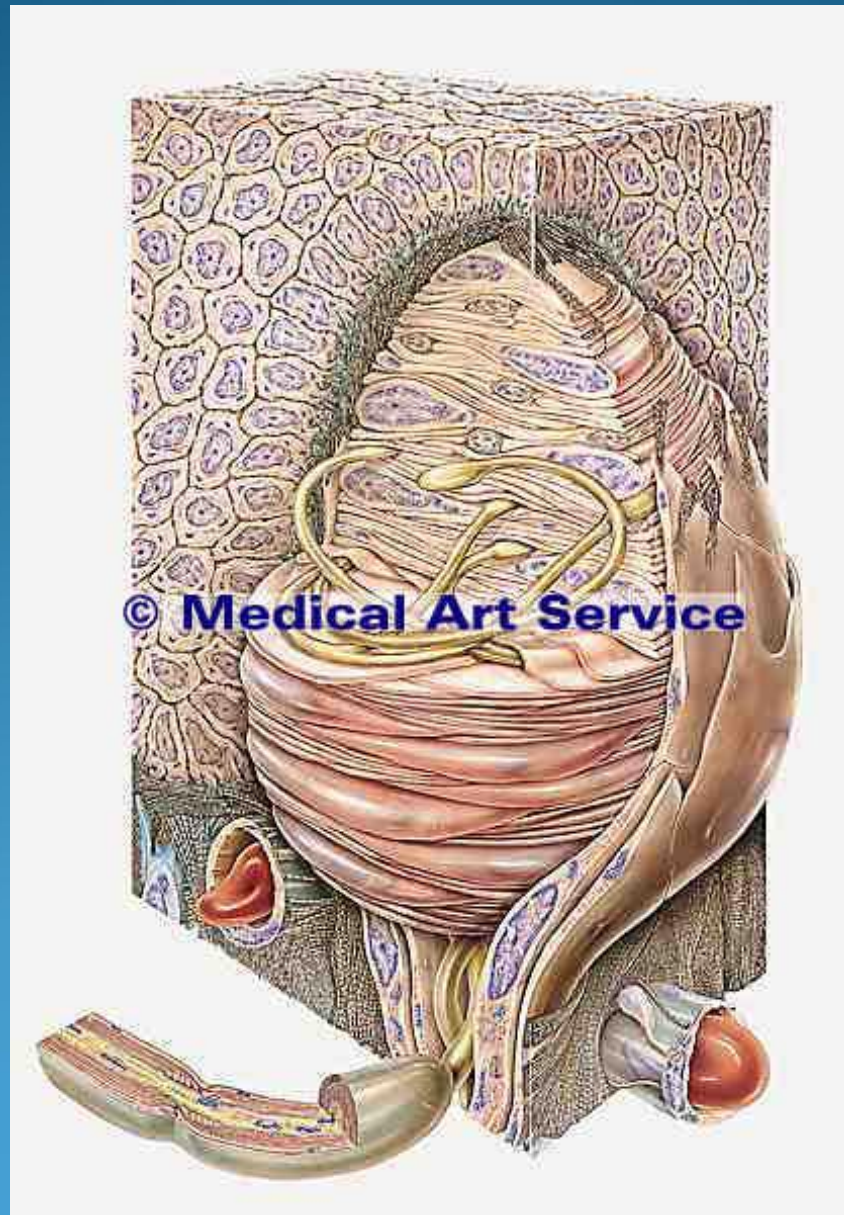




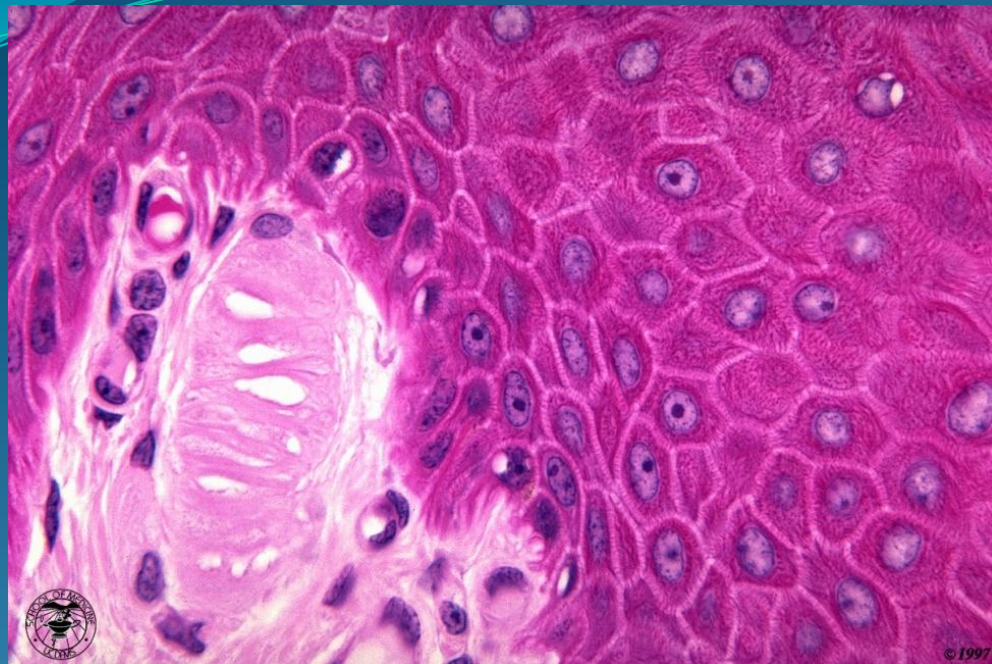




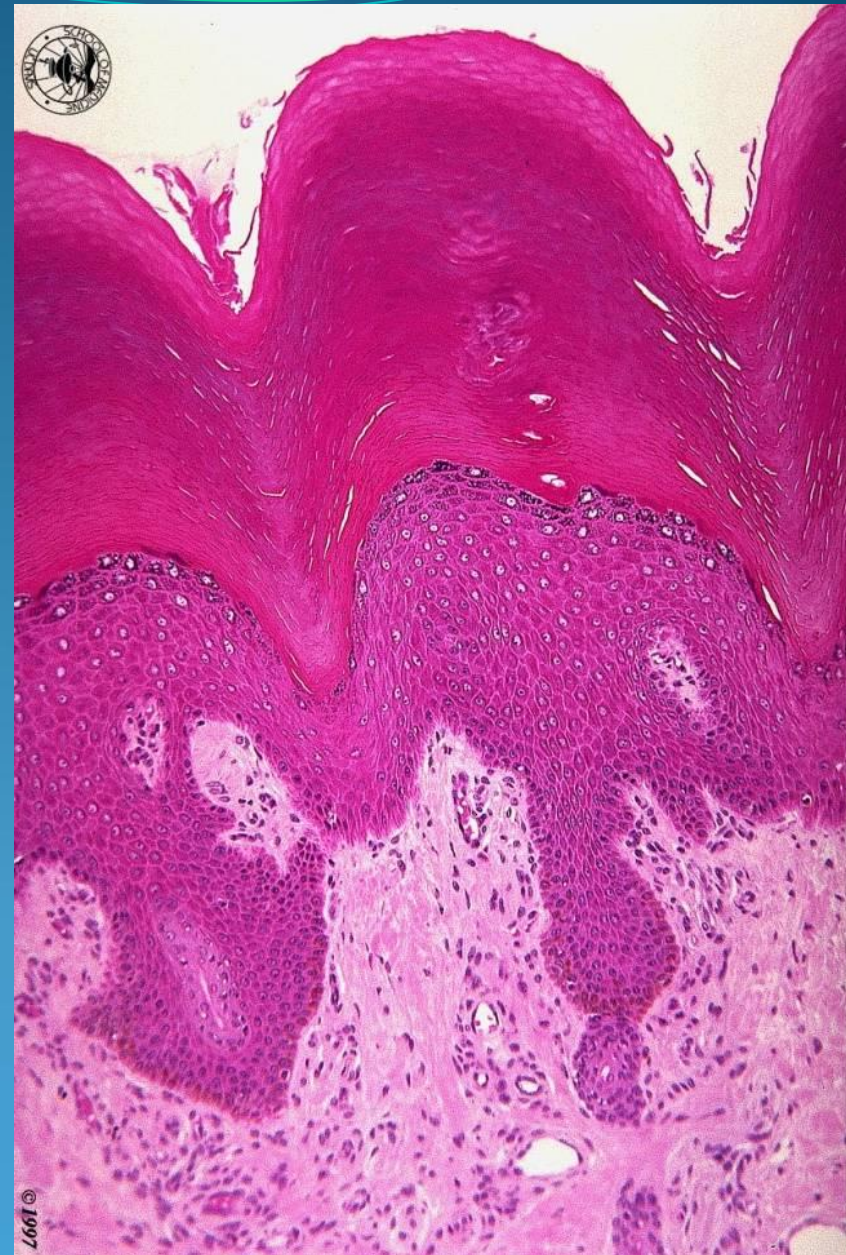
Meissner corpuscle



Meissner corpuscle



Thick skin with Meissner corpuscle



Krause corpuscle

