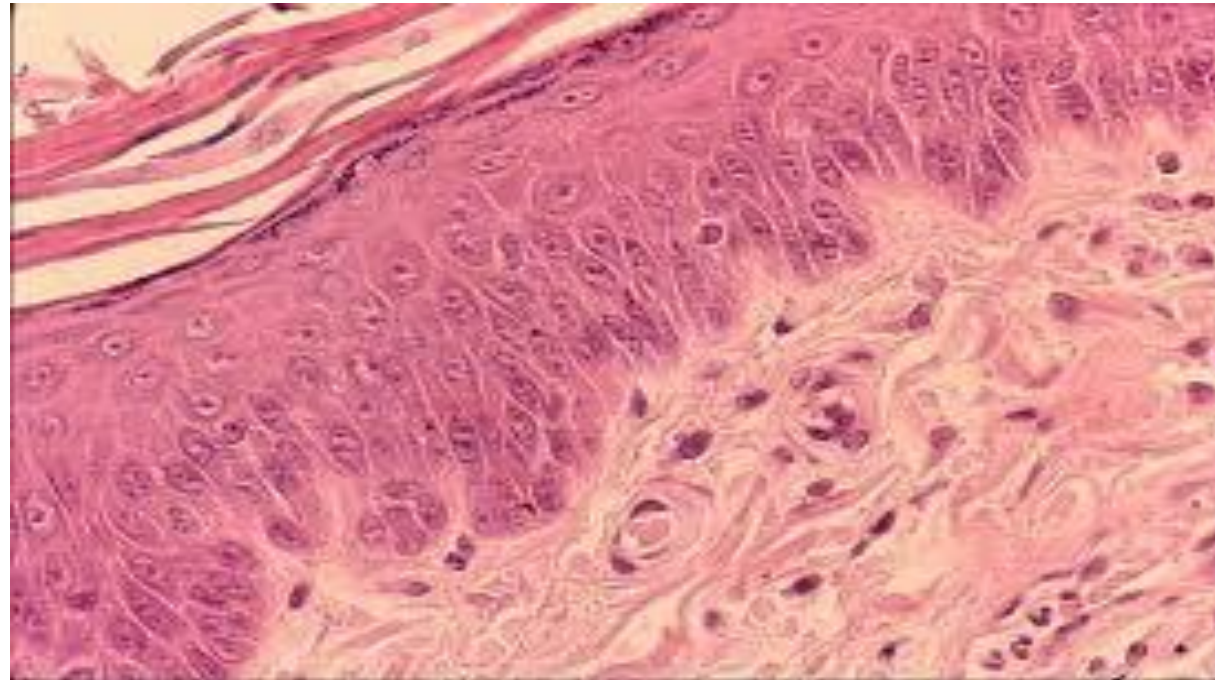


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



MSK-II Module(LGIS) SKIN

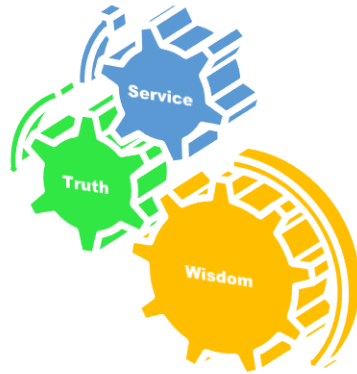


Presenter

Dr. Mohtasham Hina

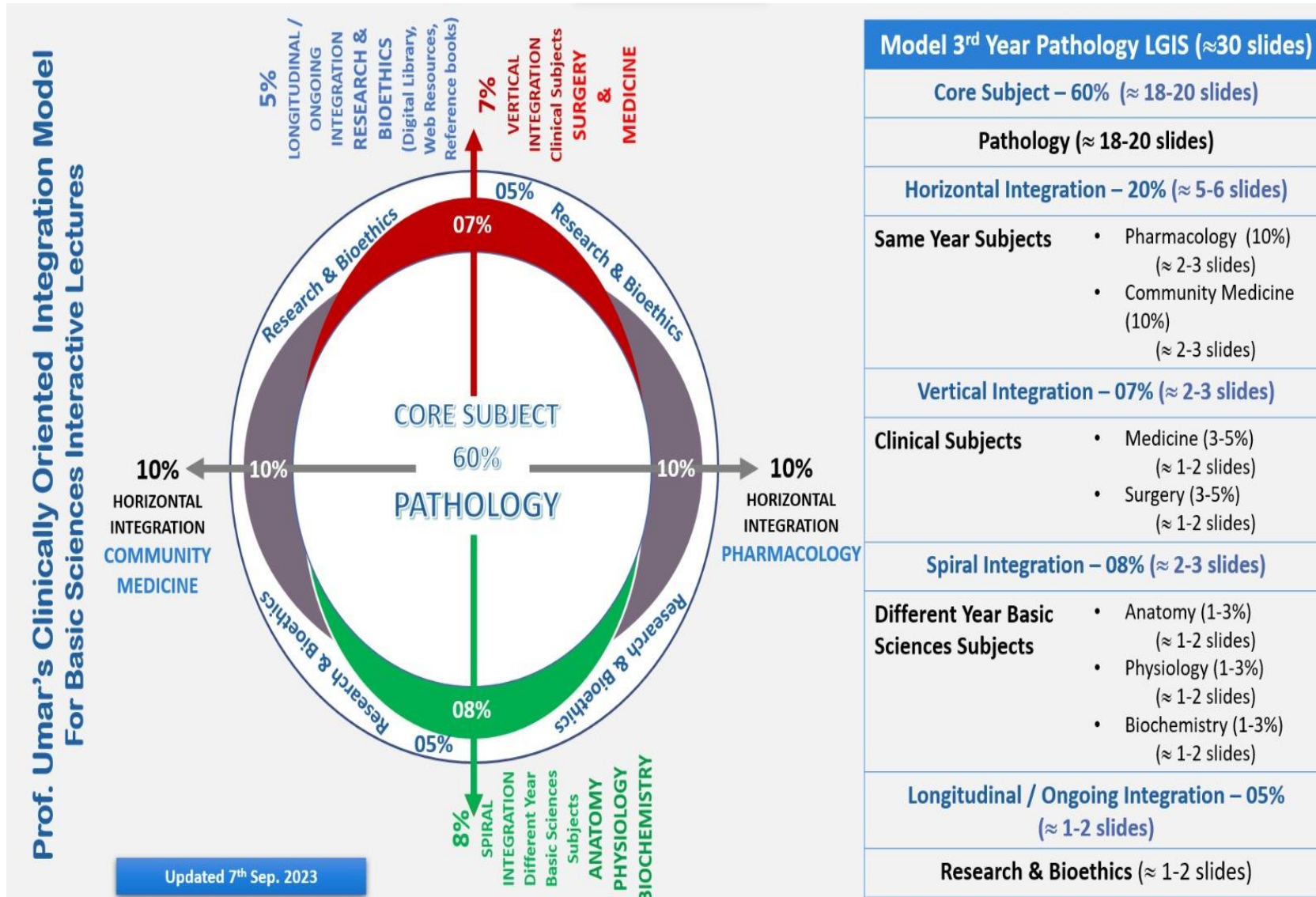
Vision; The Dream/Tomorrow

- **Motto**



- To impart evidence based research oriented medical education
- To provide best possible patient care
- To inculcate the values of mutual respect and ethical practice of medicine

Professor Umar Model of Integrated Lecture

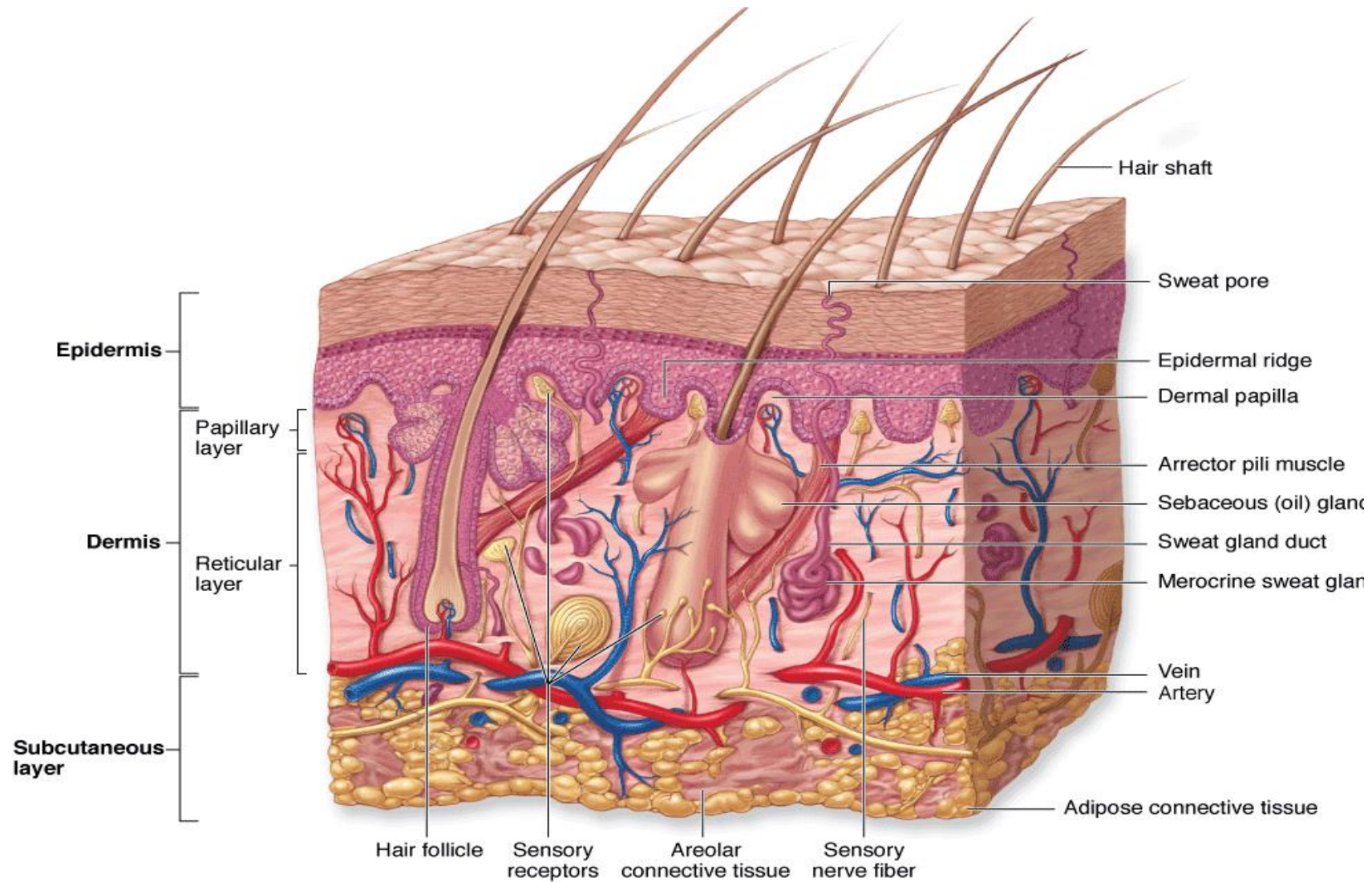


Learning Objectives

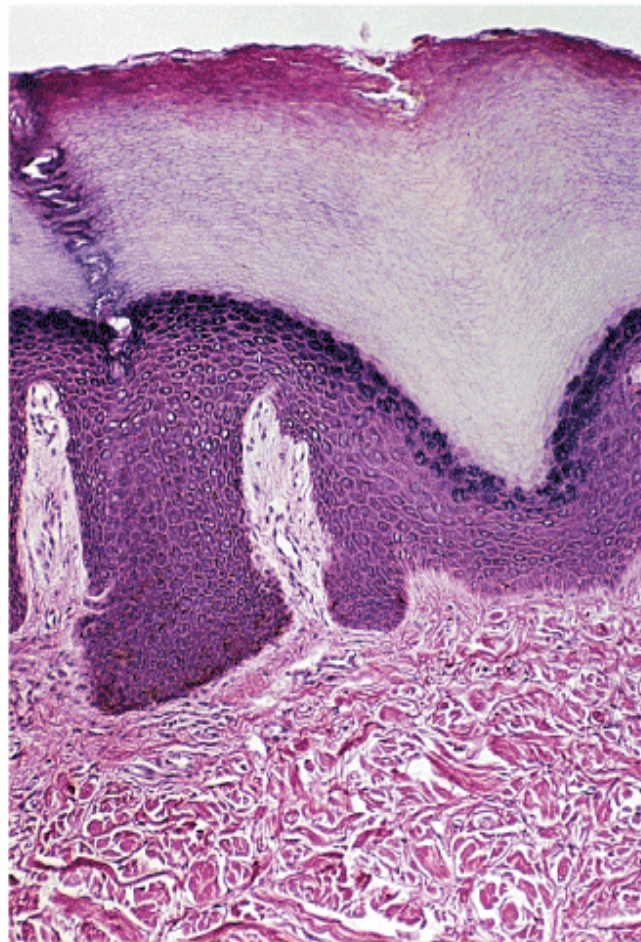
At the end of lecture 1st year students should be able to

- Enlist components of integumentary system
- Describe histological structure of skin with special reference to cells residing in epidermis
- Describe histological features of thick and thin skin
- Differentiate between thick and thin skin
- correlate clinical aspects
- To understand bio-physiological aspect of skin
- Read a research article
- Use digital library

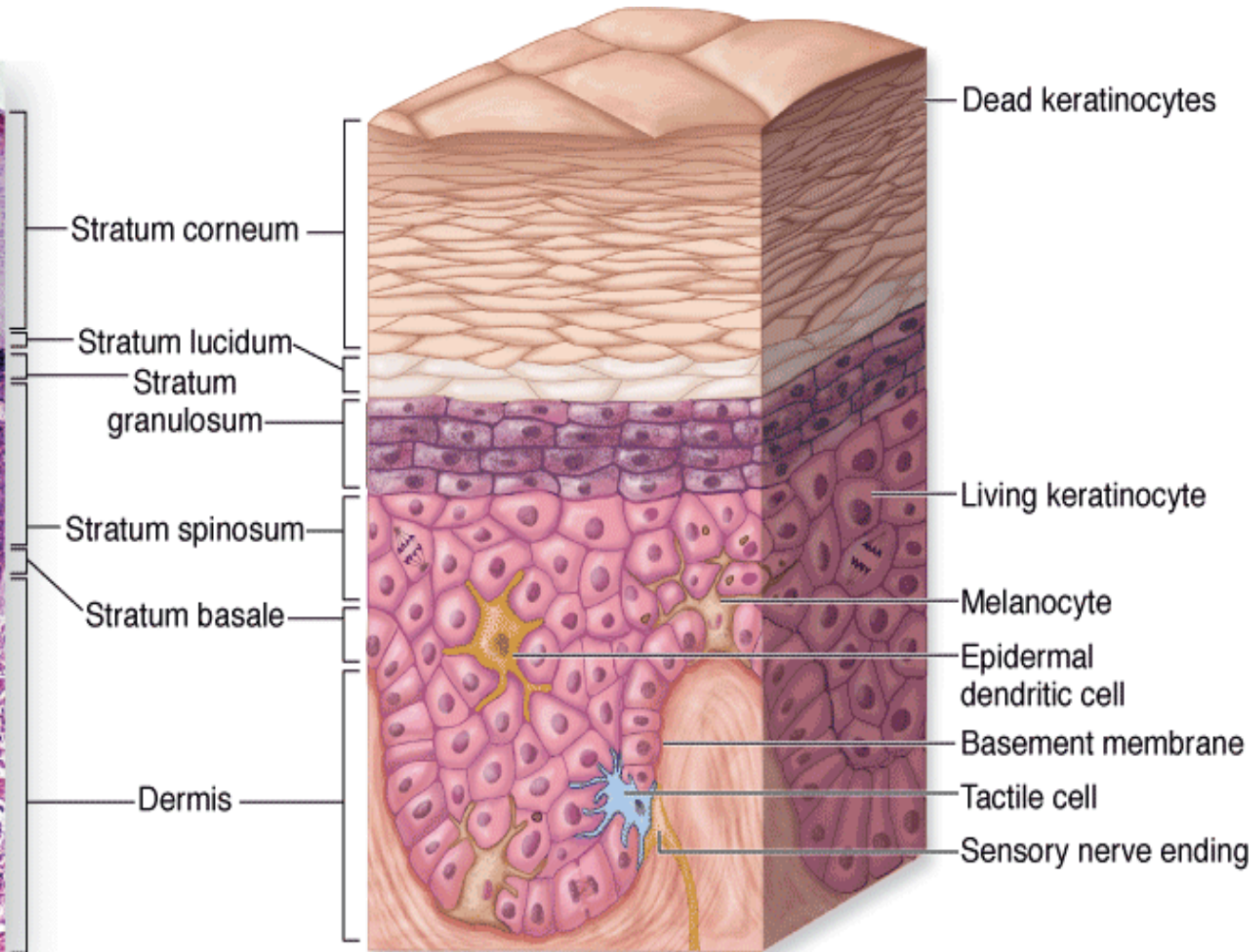
Skin



Skin



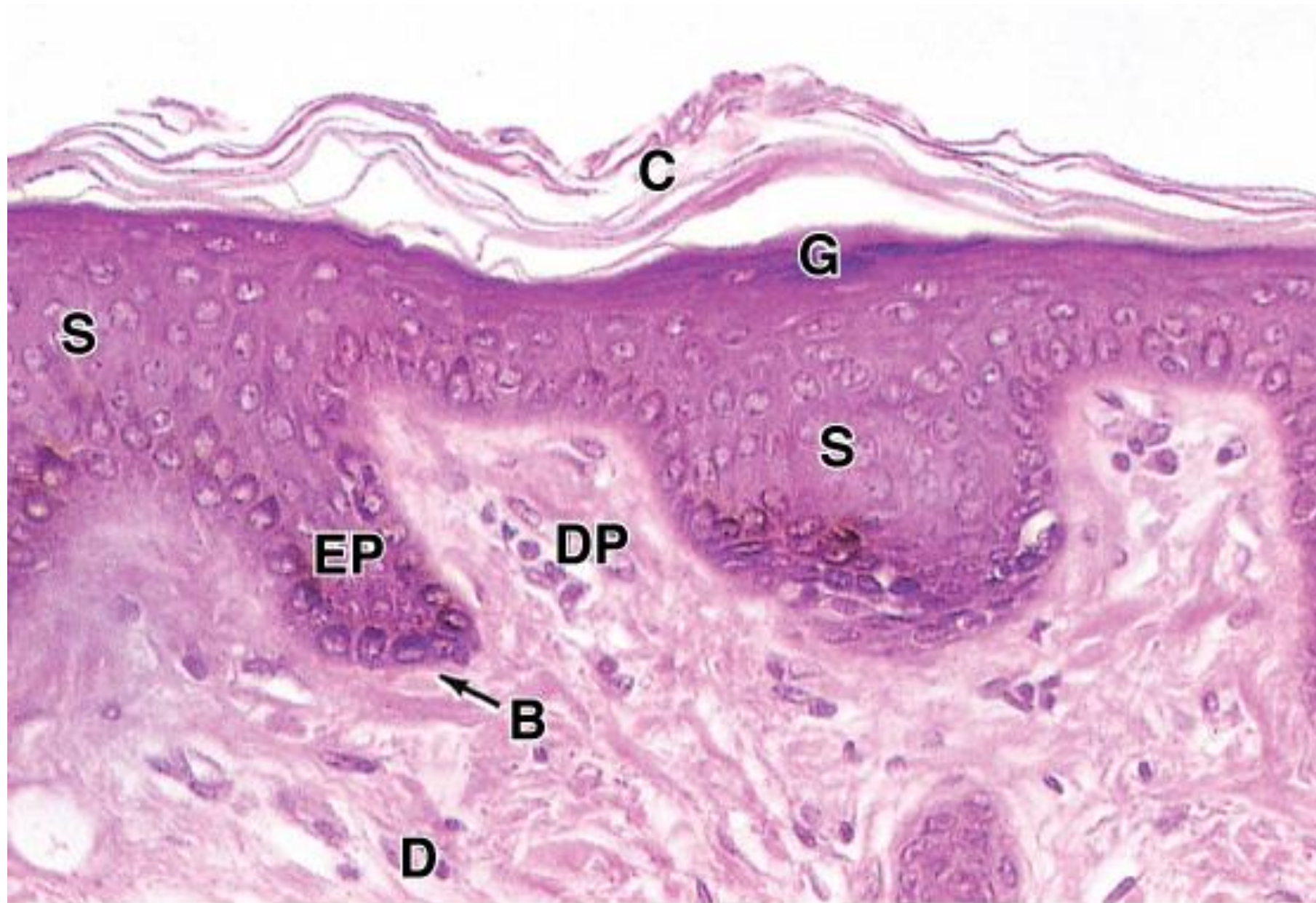
a



b

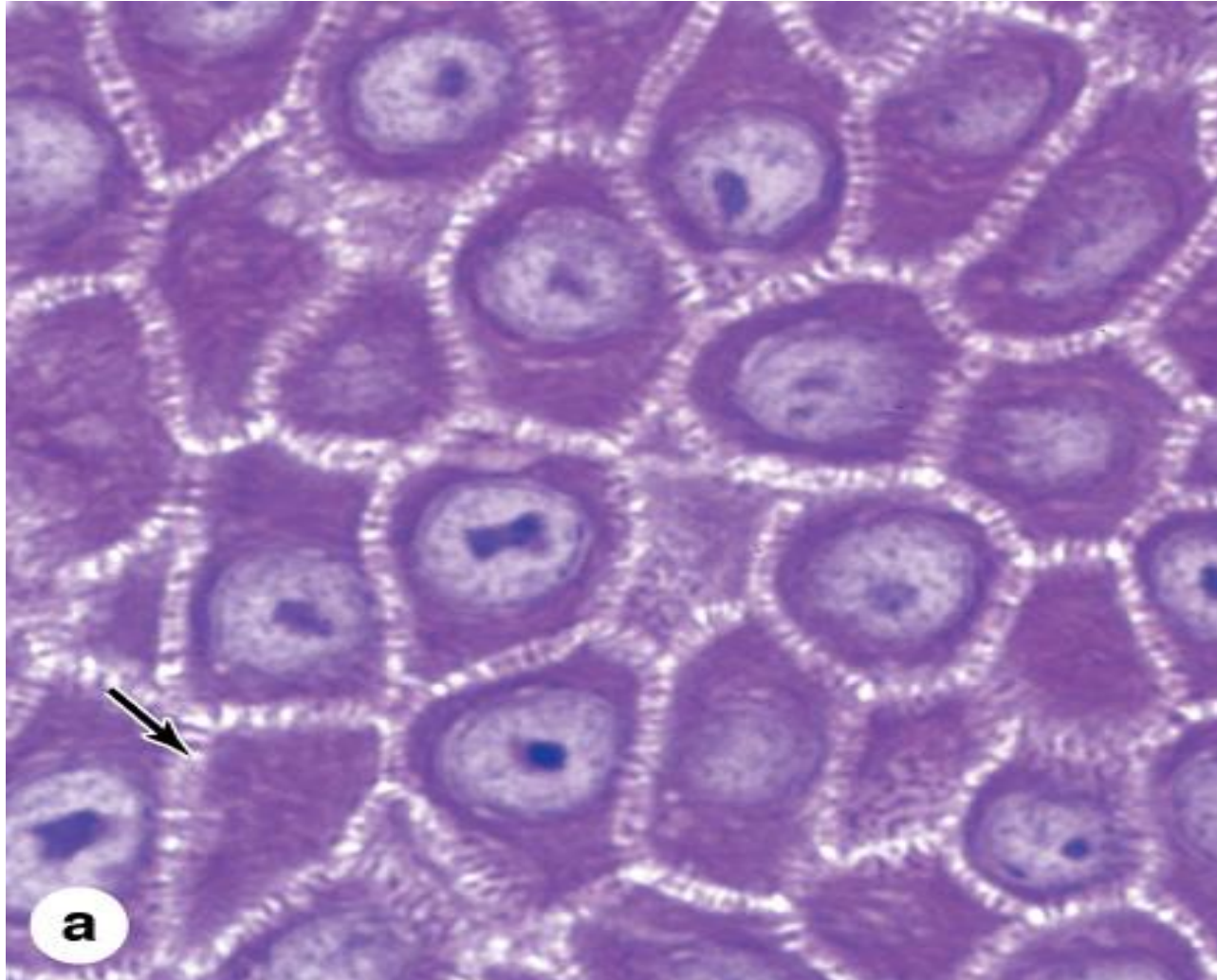
Core Concept

•

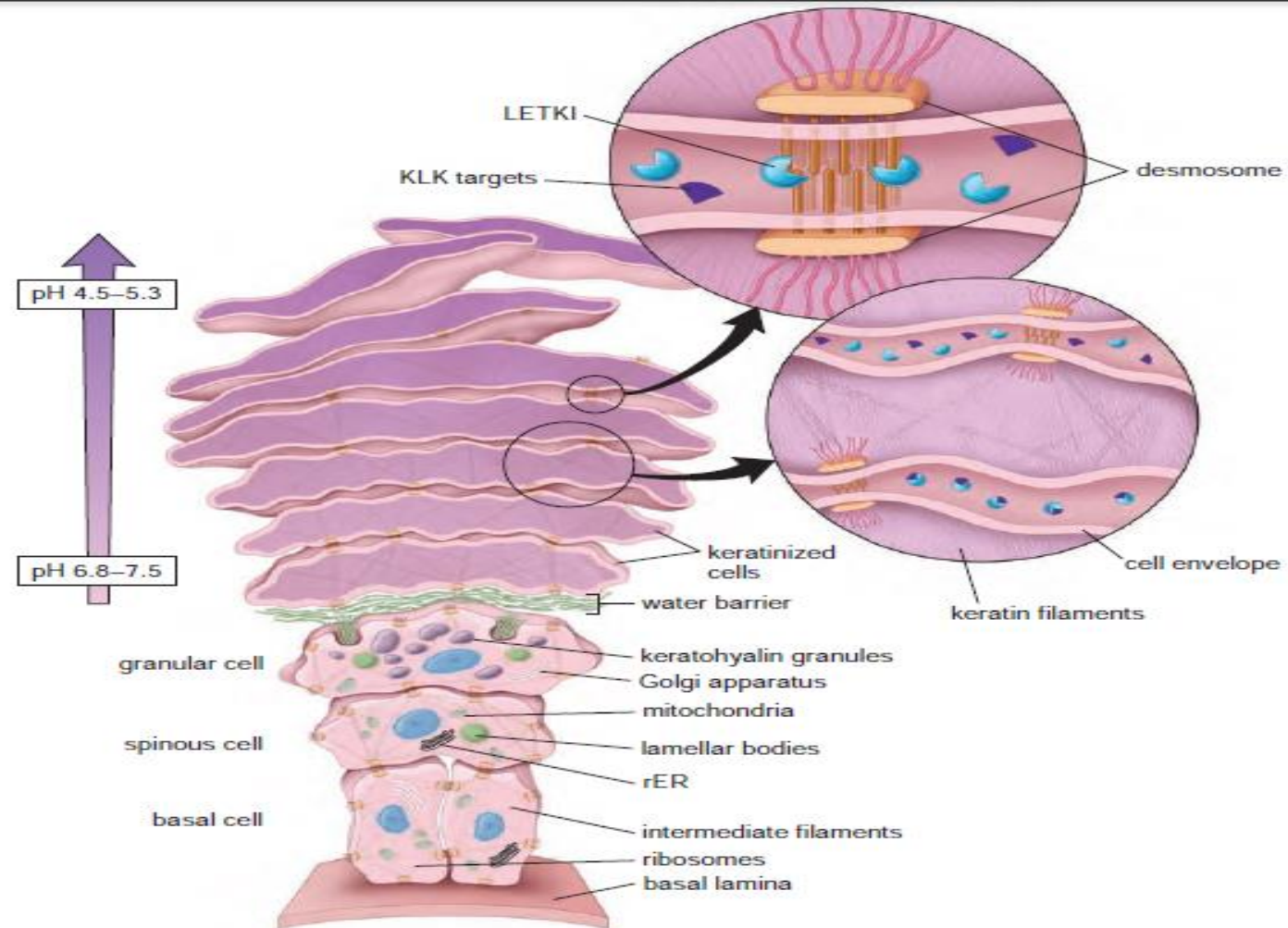


skin

-



Water Barrier

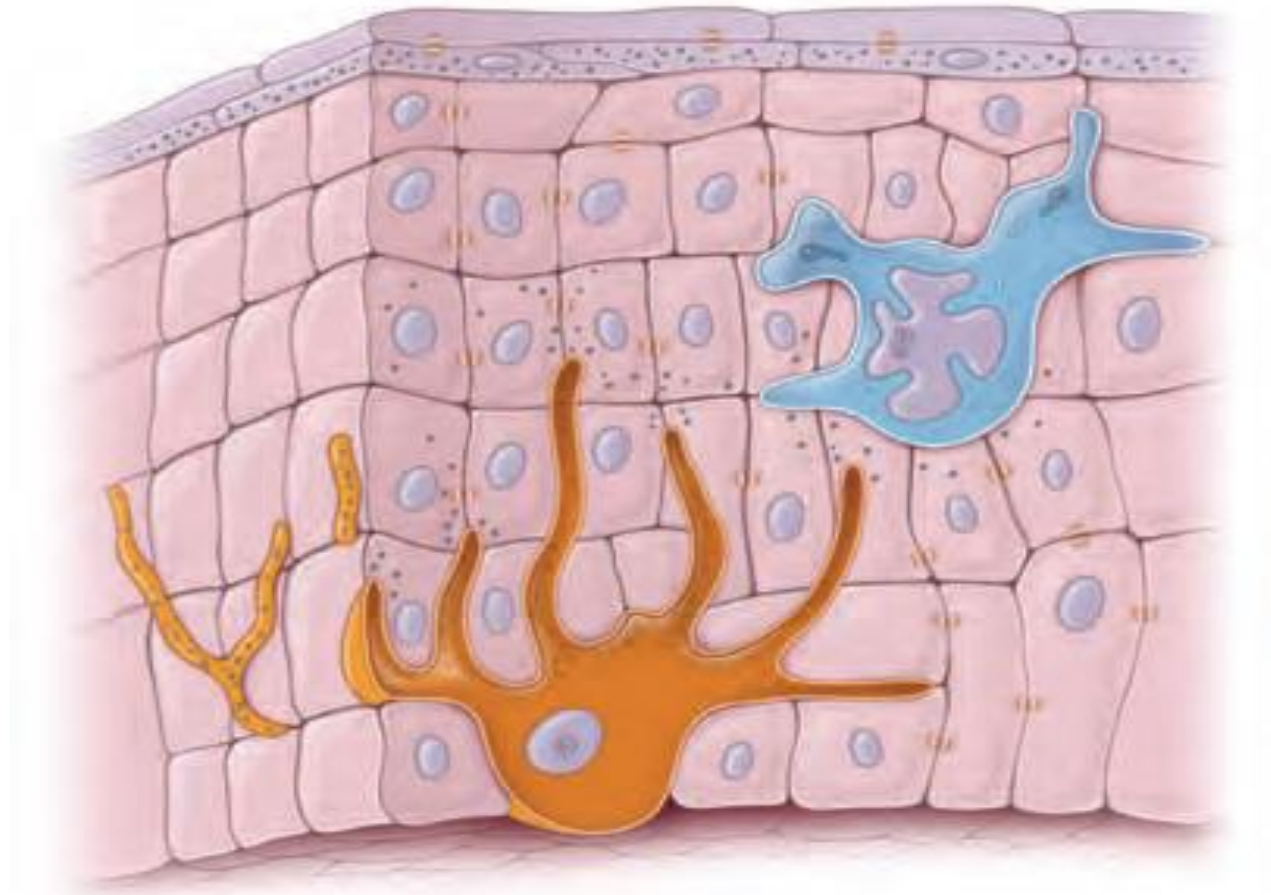


Difference Between Thin And Thick Skin

Thin skin	Thick skin
75-150 μm	400- 1400 μm
Hair follicles abundant	Absent
<u>Arrector pilli</u> present	absent
Sebaceous glands	absent
Less sweat glands	Abundant sweat glands
Stratum <u>lucidum</u> absent	Stratum <u>lucidum</u> present
Stratum <u>spinosum</u> few layers	More layers of stratum <u>spinosum</u>
Stratum <u>corneum</u> thin	Stratum <u>corneum</u> more thick
Skin of all body	Skin of palms and sole of feet

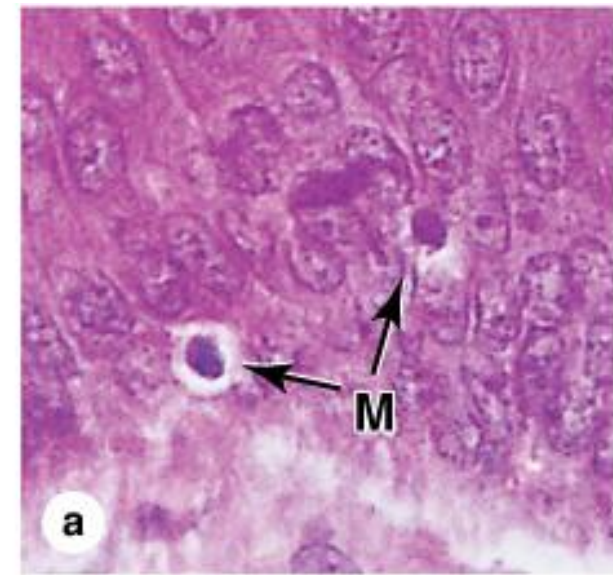
Non Keratinocytes

-



Melanocytes

-



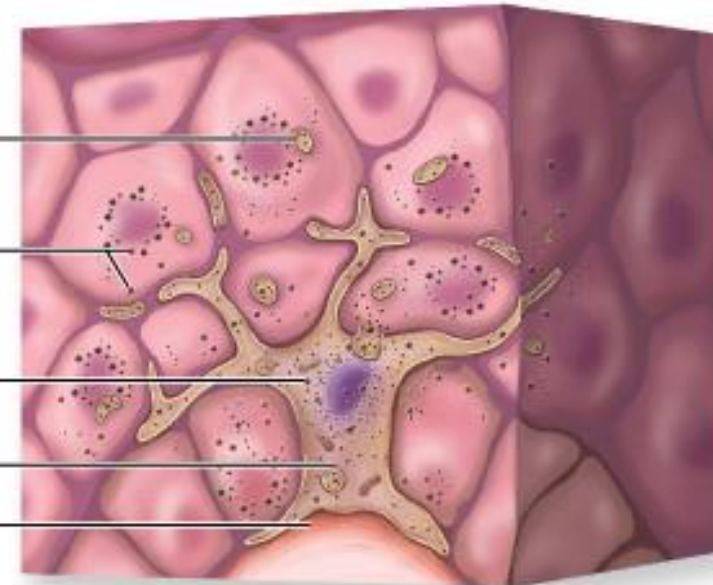
Vesicle filled
with melanin

Melanin pigment
in keratinocyte

Melanin pigment

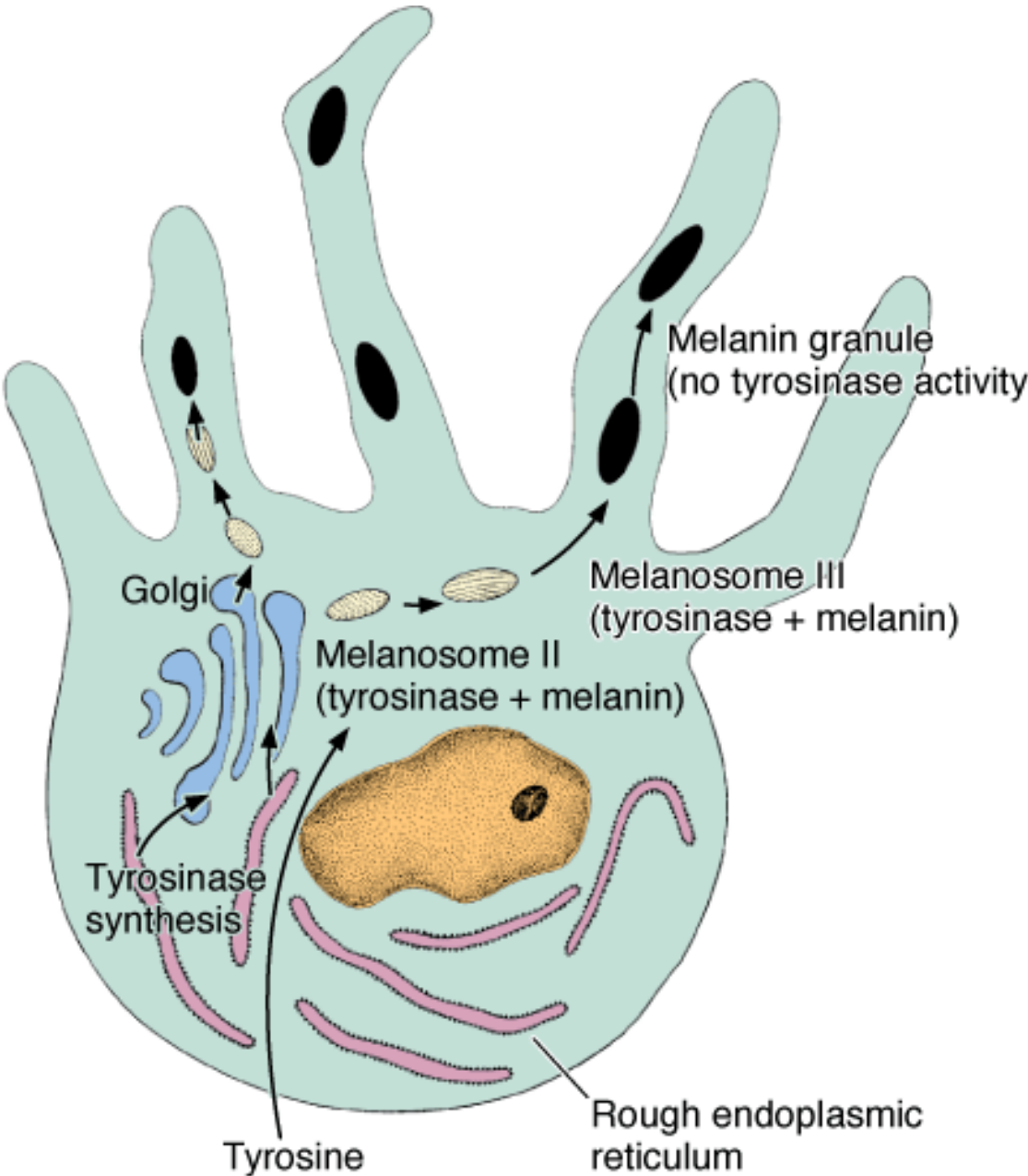
Melanocyte

Basement
membrane

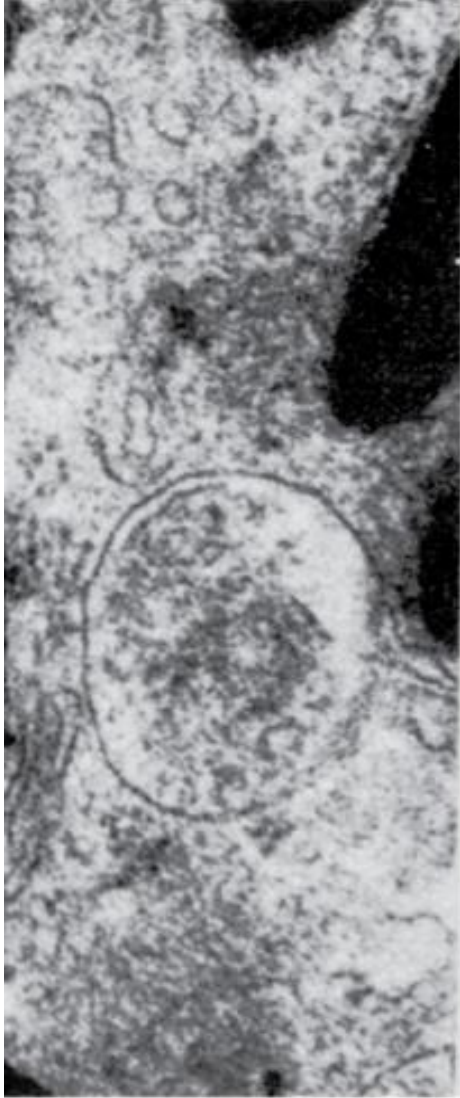


Melanocytes

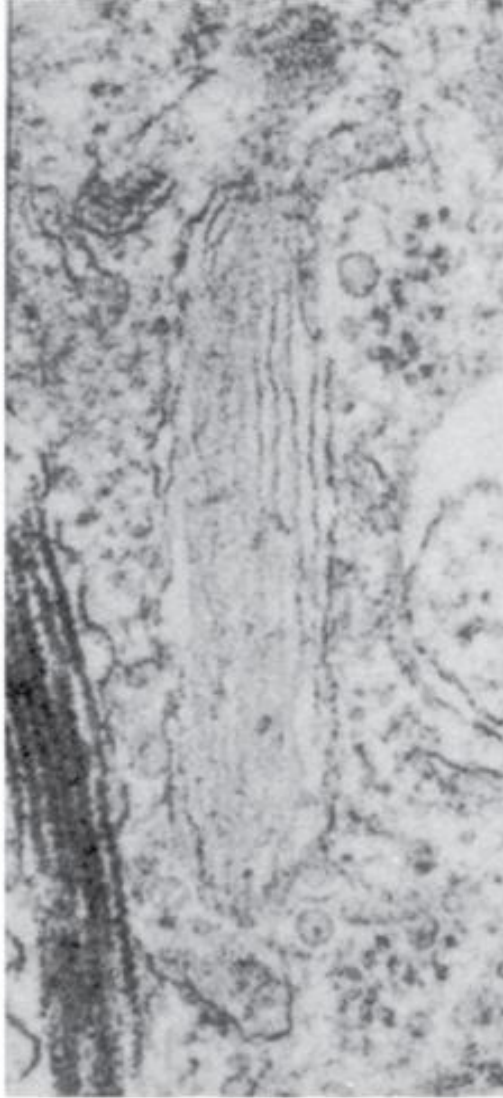
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Melanocytes



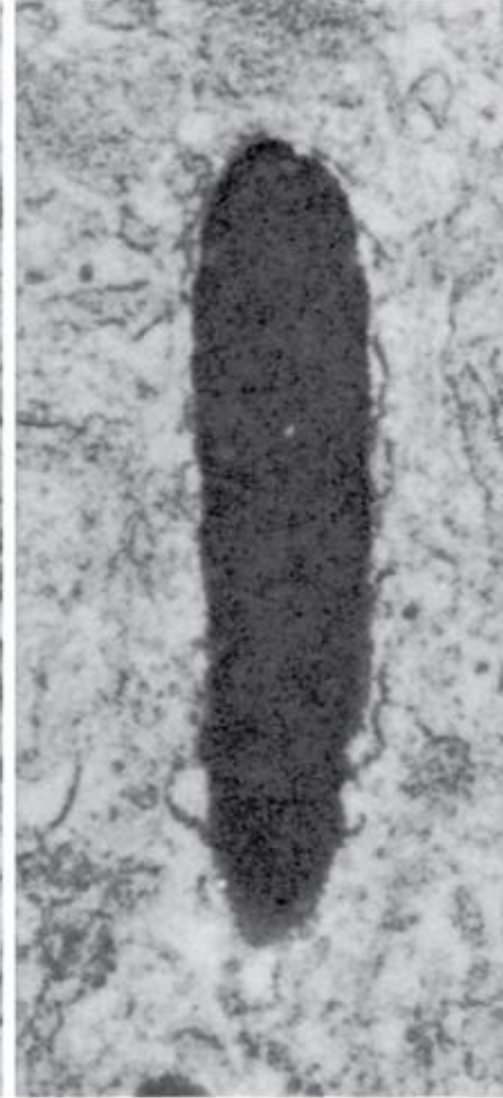
I



II



III



IV

Malignant melanoma



Albinism and Vitiligo

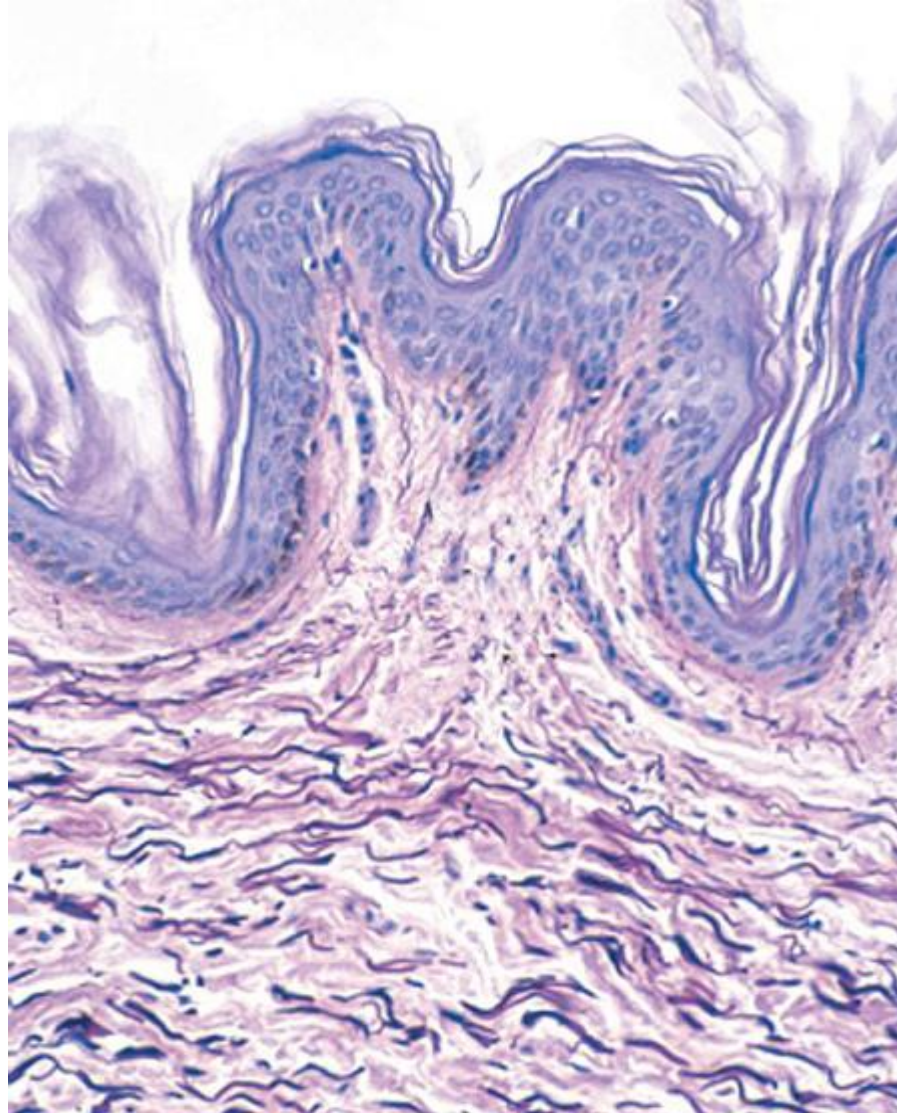


Basal Cell Carcinoma



Dermis

-



- Abnormalities of the dermal-epidermal junction can lead to one type of blistering disorder (**bullous pemphigoid**). Another type of blistering disorder (**pemphigus**) is caused by autoimmune damage to intercellular junctions between keratinocytes.

- Treatment

- ✓ Corticosteroid: If you have mild pemphigus
- ✓ Immunosuppressant medication: This medication quiets (or suppresses) the immune system.

- With age, collagen fibers thicken and collagen synthesis decreases. Elastic fibers steadily increase in number and thickness, so the elastin content of human skin increases approximately fivefold from fetal to adult life. In old age, extensive cross-linking of collagen fibers, the loss of elastic fibers, and degeneration of these fibers due to excessive exposure to the sun (**solar elastosis**) cause the skin to become more fragile, lose its suppleness, and develop wrinkles.

Research article

Aging skin: histology, physiology, and pathology

https://pubmed.ncbi.nlm.nih.gov/?term=Khavkin+J&cauthor_id=21763983

skin is a complex organ covering the entire surface of the body. Aged skin is characterized by appearance of wrinkles, laxity, and pigmentary irregularities. These changes occur under the influence of intrinsic and extrinsic factors, with sun exposure being the most deleterious to the skin. Skin changes associated with aging are the focus of many surgical and nonsurgical procedures aimed to improve the appearance of skin. Knowledge of skin histology and physiology will deepen the understanding of cutaneous changes associated with aging and will promote optimal cosmetic and functional patient outcomes.

How To Access Digital Library

- 1.Go to the website of HEC National Digital Library.
- 2.On Home Page, click on the INSTITUTES.
- 3.A page will appear showing the universities from Public and Private Sector and other Institutes which have access to HEC National Digital Library HNLD.
- 4.Select your desired Institute.
5. A page will appear showing the resources of the institution
6. Journals and Researches will appear
7. You can find a Journal by clicking on JOURNALS AND DATABASE and enter a keyword to search for your desired journal.

Learning Resources

- Junqueira's Basic Histology 12th Edition, Chapter 18
- Histology , A text and Atlas by Michael H.Ross 6th Edition, Chapter 15
- Google scholar

<https://pubmed.ncbi.nlm.nih.gov/?term=Tedesco%20FS%5BAuthor%5D>