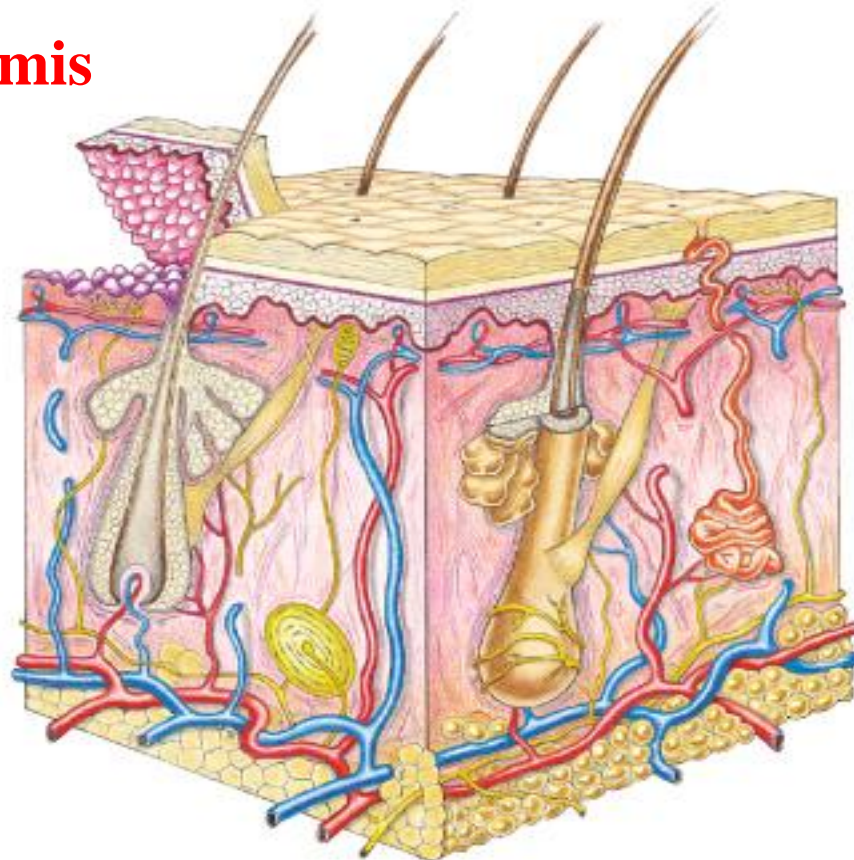


# Skin

epidermis



dermis

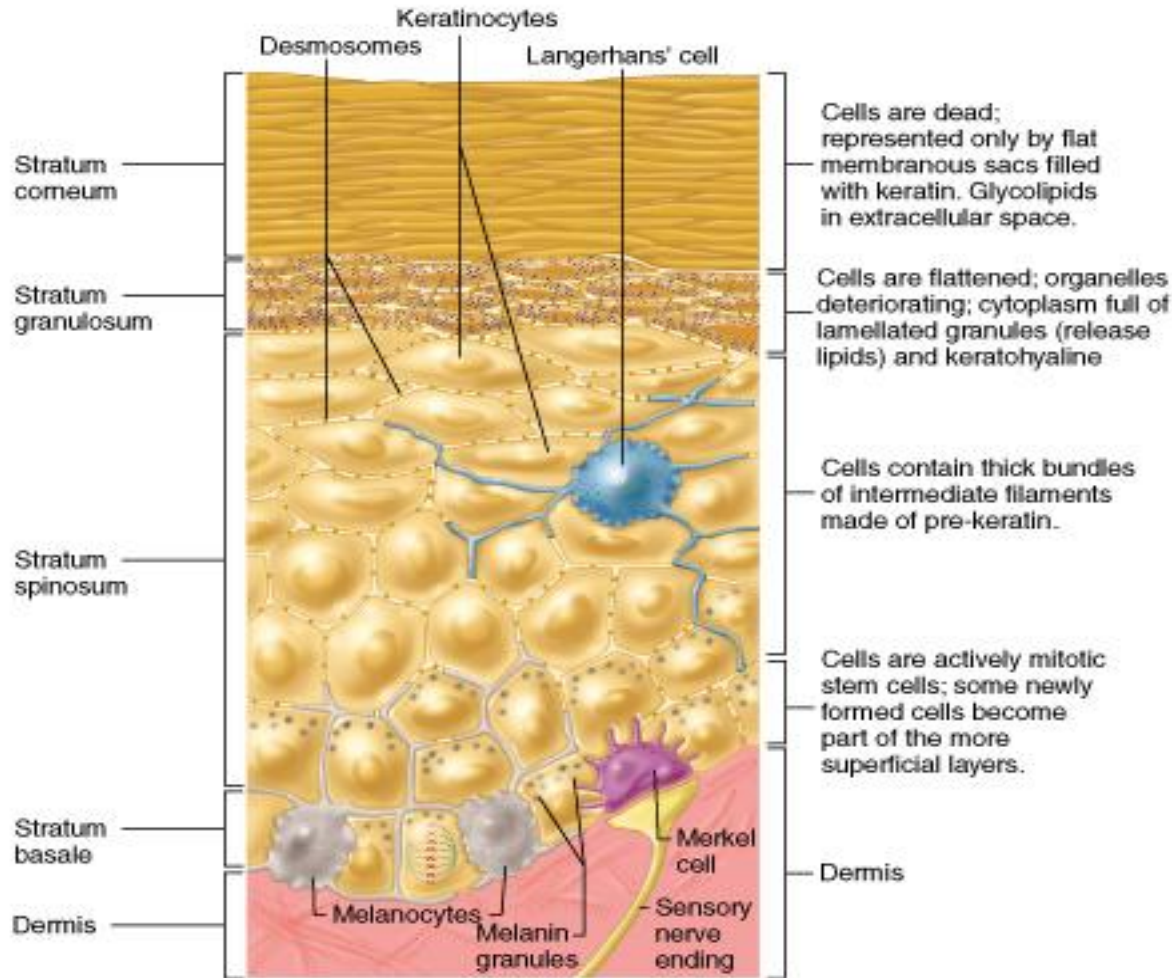
hypodermis

Copyright © 2001 Benjamin Cummings, an imprint of Addison Wesley Longman, Inc.

# Epidermis - layers

- 1) **s. corneum: “corns”, dead cells filled with keratin**
  - like bark, rubs off with friction -
  
- 2) **s. lucidum: “clear”, additional dead cells**
  - present in **thick skin** (palm, sole)
  - absent in **thin skin**
  
- 3) **s. granulosum: “grainy”, flat, deteriorating cells**
  
- 4) **s. spinosum: “spiny”, active, mitotic cells**
  
- 5) **s. basale: "base", very active germinal cells**
  - only 1 cell thick
  - **melanocytes: protects genes from UV**

# Epidermis



Copyright © 2001 Benjamin Cummings, an imprint of Addison Wesley Longman, Inc.

**note:**  
**thin skin,**  
**s. lucidum**  
**absent**

# **Dermis - components**

- 1) fibroblasts: protein fibers**
- 2) oil/sebaceous glands: oil**
- 3) sweat glands: sweat**
- 4) sensory nerves: transmit sensation to brain**
- 5) sensory receptors:**
  - a) free nerve endings: pain**
  - b) Meissner's Corpuscles: light touch**
  - c) Pacinian Corpuscles: deep touch**
- 6) motor nerves: transmit movements from brain**
- 7) arrector pili muscles: goose bumps**
- 8) hair cells: hair**
- 9) macrophages: WBC, defence**
- 10) mast cells: histamine, inflammation**

# Hypodermis - components

- 1) adipocytes: fat ( energy, shock absorp.)**
- 2) areolar CT: cushion for skin organelles;  
holds fluids; inflammation role**
- 3) blood vessels: bring in nutrients;  
remove wastes**

# **Skin Assignment**

## **Skin Color Essay**

**“What are the factors of skin color?”**

- genetic, geographic**
  - pigments (3) and depth of pigment”**
- 
- 4-8 pages**
  - 5 references**
    - start with reference articles under Hsu**
    - use other sources**