

# Physiological functions of the skin

## 1. Sensory

- Tactile: mechanoreceptors
- Thermal: thermoreceptors

## 2. Mechanical injury protection

- nails

## 3. Vit D<sub>3</sub> synthesis

## 4. Radiation injury prevention

- Physical: barrier for  $\alpha$ -radiation
- Chemical: melanin for UV radiation

## 5. Thermoregulation

- hair
- perspiration
- vascular involvement

## 6. Antimicrobial properties

- sebum from sebaceous glands

## 7. Fluid loss prevention

## 8. Physical barrier

- Physical: keratin filaments
- Immunological: Langerhans cells in epidermis and macrophages and mast cells in dermis