

### **Dermal Cells**

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Janelle Hocking Edwards, The University of Western Australia.



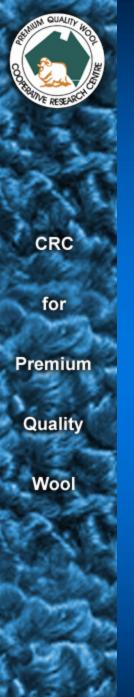
### **Dermal fibroblasts**

- responsible for formation of collagen, elastin and ground substance
- spindle-shaped
  - When inactive long, slender, nucleus fills cells
- develop from tissue mesenchyme



## **Dermal macrophages**

- amoeboid cells
- remove foreign bodies
- ubiquitous
- develop from blood monocytes
- detoxify ingested toxic material
- wound healing, infection, tissue resorption, recycling



#### **Dermal mast cells**

- associated with blood vessels and hair follicles
- numbers increase in itching
  - produce histamines
  - cytoplasm filled with large granules that are released when stimulated
- participate in lipid metabolism and regulation
- participate in initial immune response



### **Dermal merkel cells**

- associated with nerve endings
- mechanoreceptor function
- contain neuropeptides
- present in epidermis, hair and whiskers



## **Dermal melanocytes**

- present in hair, epidermis, dermis
- secretory cells
- produce melanosomes
  - melanin-containing cytoplasmic particles
  - transferred to keratinocytes
- Brown- black pigmentation



# **Dermal lymphocytes**

- involved in cell mediated immune response
- T- lymphocytes