

## **Cortex Structure**

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



CRC

for

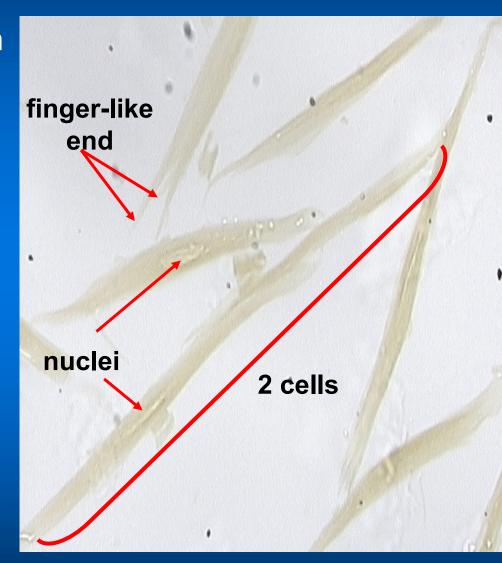
**Premium** 

Quality

Wool

### Cortex

- long, thin cells with finger-like ends
  - the ends interlock
- cell membrane complex holds the cells of the fibre together





#### CRC

for

Premium

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# **Cortical cell types**

cortical cell types

orthocortex (O)

– paracortex (P)

mesocortex

– metacortex

Fibre (20µm)



**Follicle** 



# Variation in cortical structure

Broad wool; >30µm Radial/concentric segmentation

Fine wool <25µm **Bilateral segmentation Orthocortex** 

**Cuticle** 

Premium

for

CRC

Quality

Wool

**Cortex** 

**Paracortex** 

Mesocortex intermediate between ortho. and para

Metacortex more basophilic than ortho.

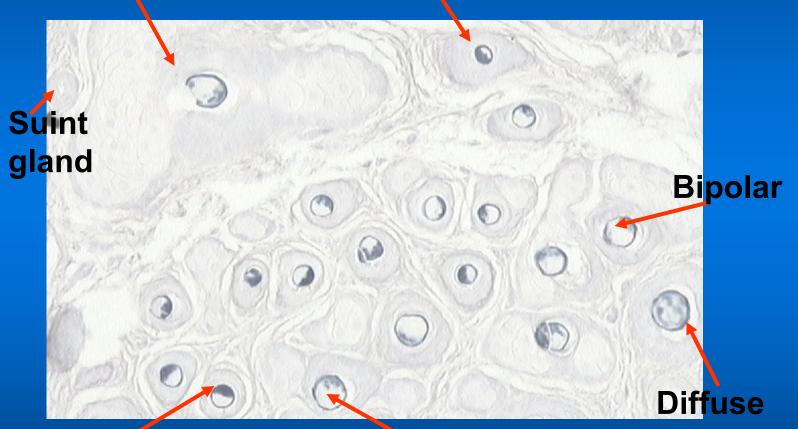
Medulla



# Ortho- and para-cortex patterns in wool fibres

**Primary follicle** 

**Bilateral** 



Paracortex (dark)

**Orthocortex** (clear)