



CRC

for

Premium

Quality

Wool

Regulation of Melanin Synthesis

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr Rosemary Sutton, CSIRO Animal Production.



Biology of pigmented wool

- **Melanocytes**
 - cells that produce melanin
- **Melanin**
 - the pigments that colour the wool
 - colour and shade depends on the biochemistry of the cell
 - phaeomelanins (yellow or red)
 - eumelanins (black or brown)

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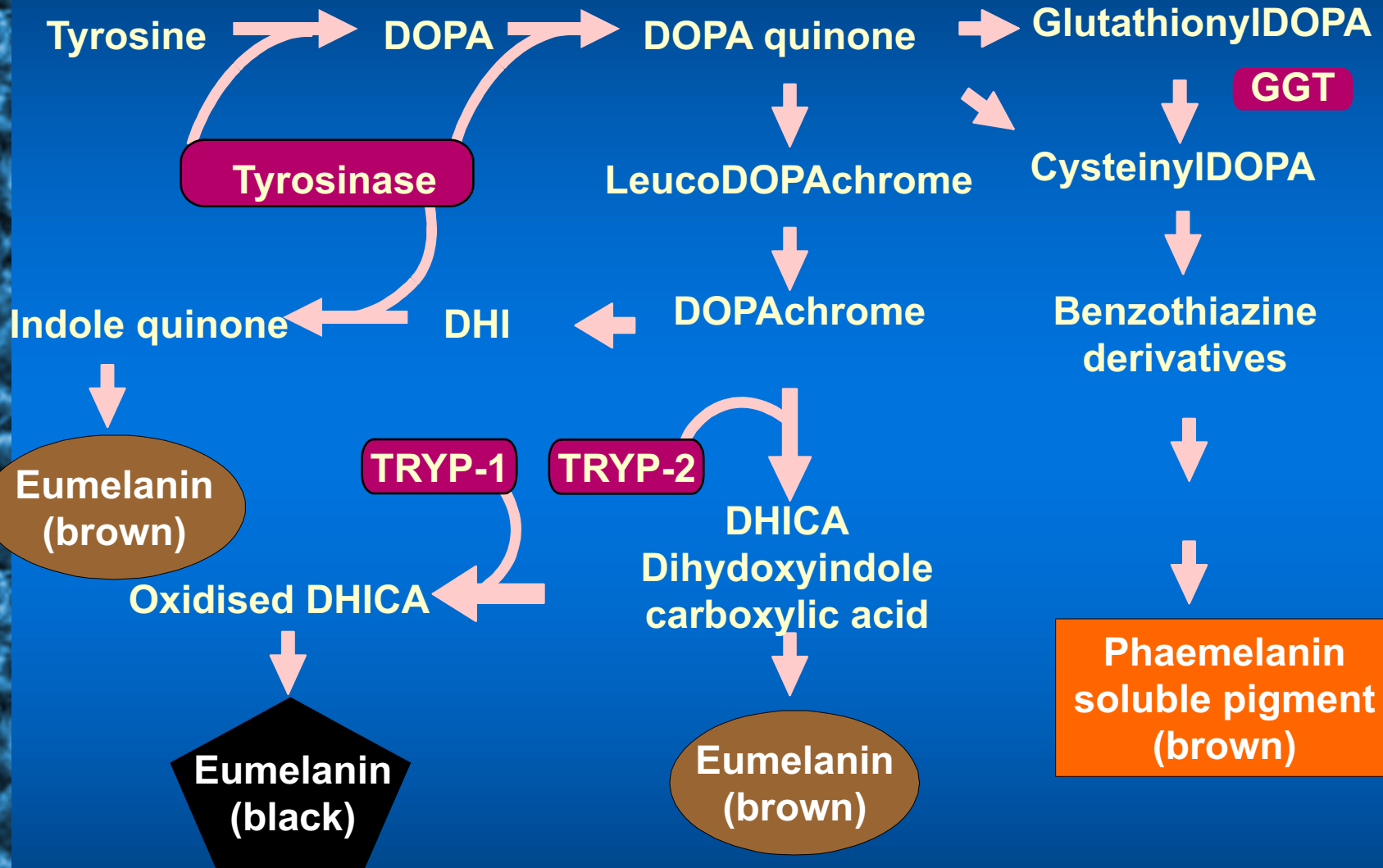
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Melanin synthesis

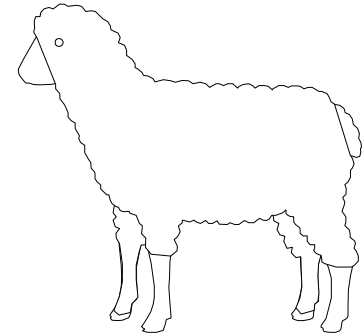
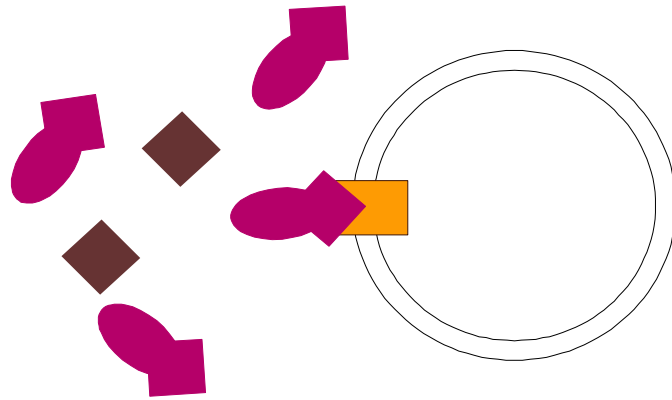


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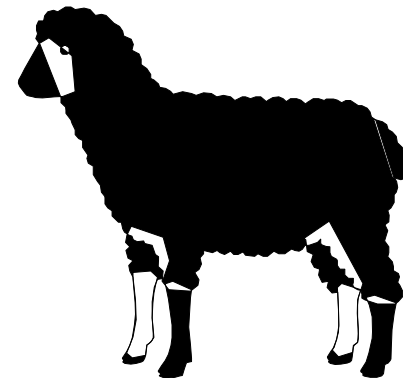
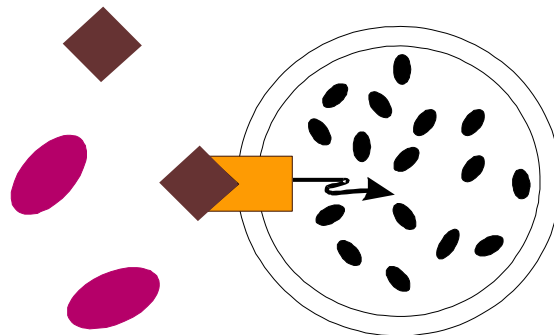


Control of melanocyte activity

Agouti binds to MSH receptor on melanocytes



MSH binds to receptor and pigment is produced



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