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## Follicle Initiation, EGF and FGF-2

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Janelle Hocking Edwards, The University of Western Australia, and Dr Graham Cam, CSIRO Animal Production.

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Effect of EGF infusion on follicle initiation and development in sheep

- Fetal infusion of epidermal growth factor (EGF)
  - extensive hypertrophy of sebaceous glands, sweat gland ducts and follicular sheath
  - degenerative changes in primary follicles associated with inhibition of keratinisation

Janelle Hocking Edwards

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## Effect of EGF infusion on follicle initiation and development in mice

 Fibres are shorter and curled in neonatal mice given EGF

Postnatal follicle initiation is inhibited
– EGF has a similar effect to FGF-2

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Growth factors present during follicle initiation and development

 FGF-2 does not inhibit follicle initiation but does block follicle development in mice

• EGF has a similar effect to FGF-2

 fibres are shorter and curled in neonatal mice given EGF

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