



CRC

for

Premium

Quality

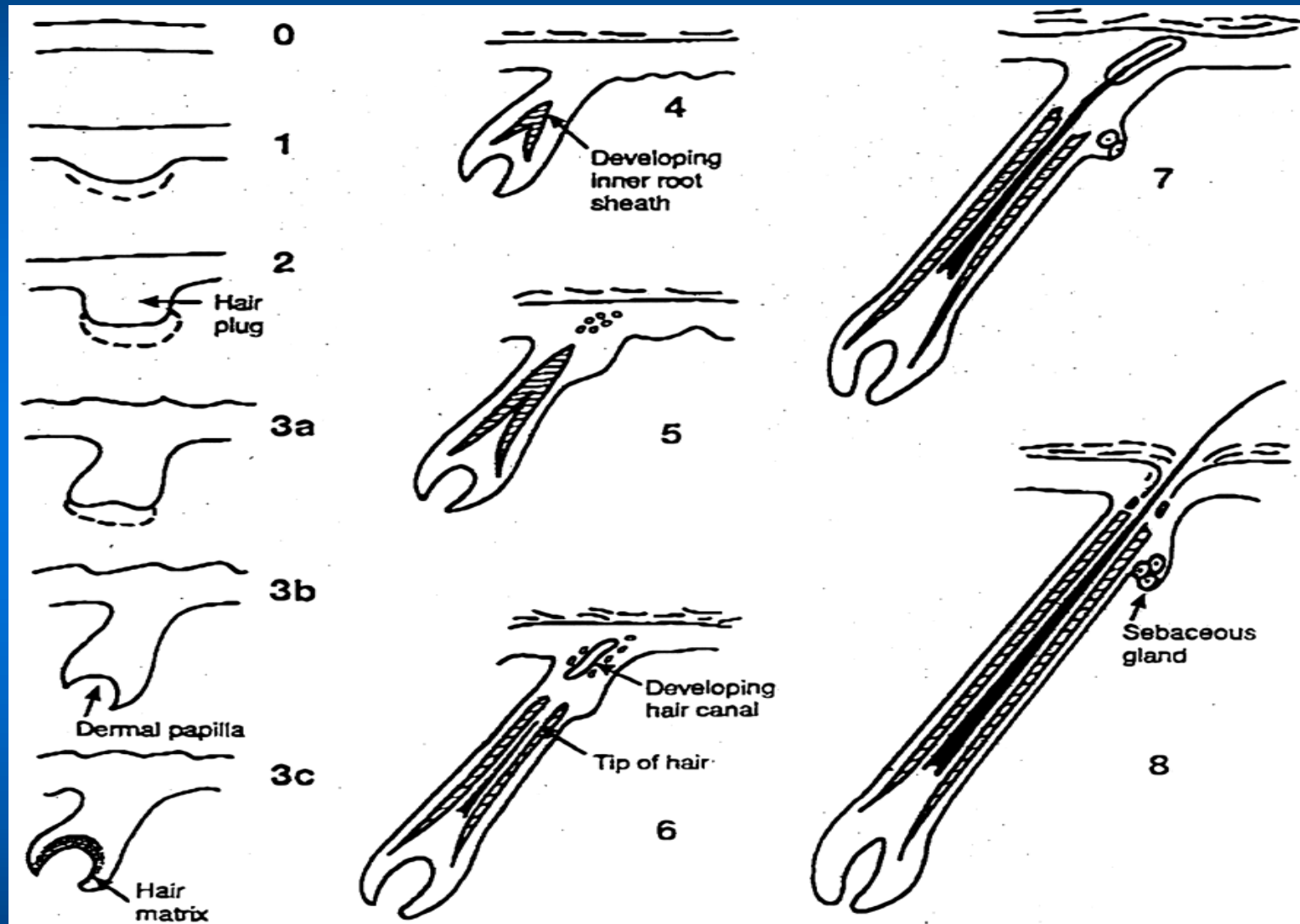
Wool

# Formation of Appendages

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



# Mouse Hair Morphogenesis



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# Feather Morphogenesis

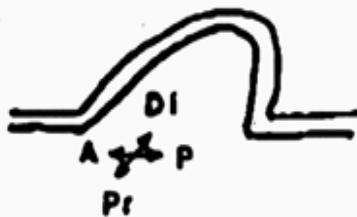
A. Ectoderm filament



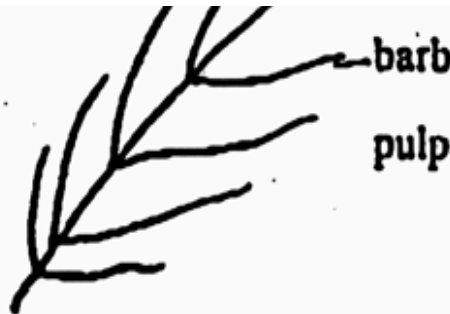
B. Placode



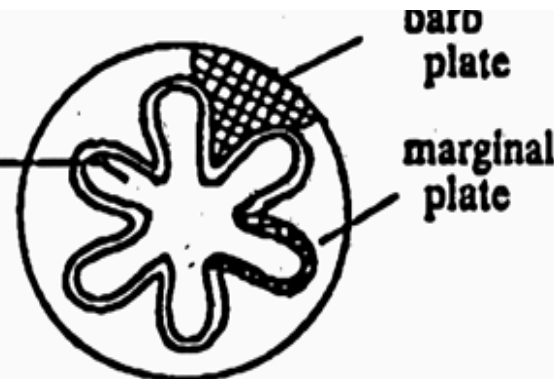
C. Feather Bud



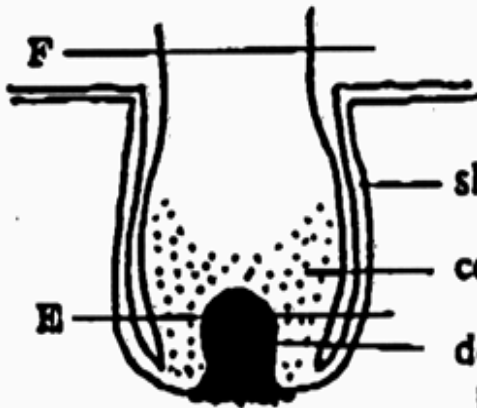
G. Mature Feather



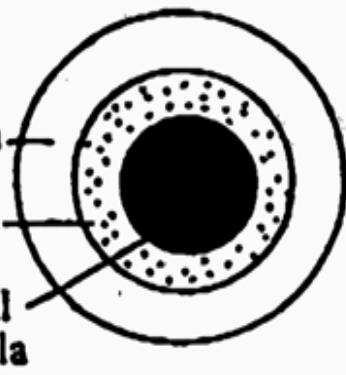
F. Feather



D. Feather Follicle



E. Dermal Papilla



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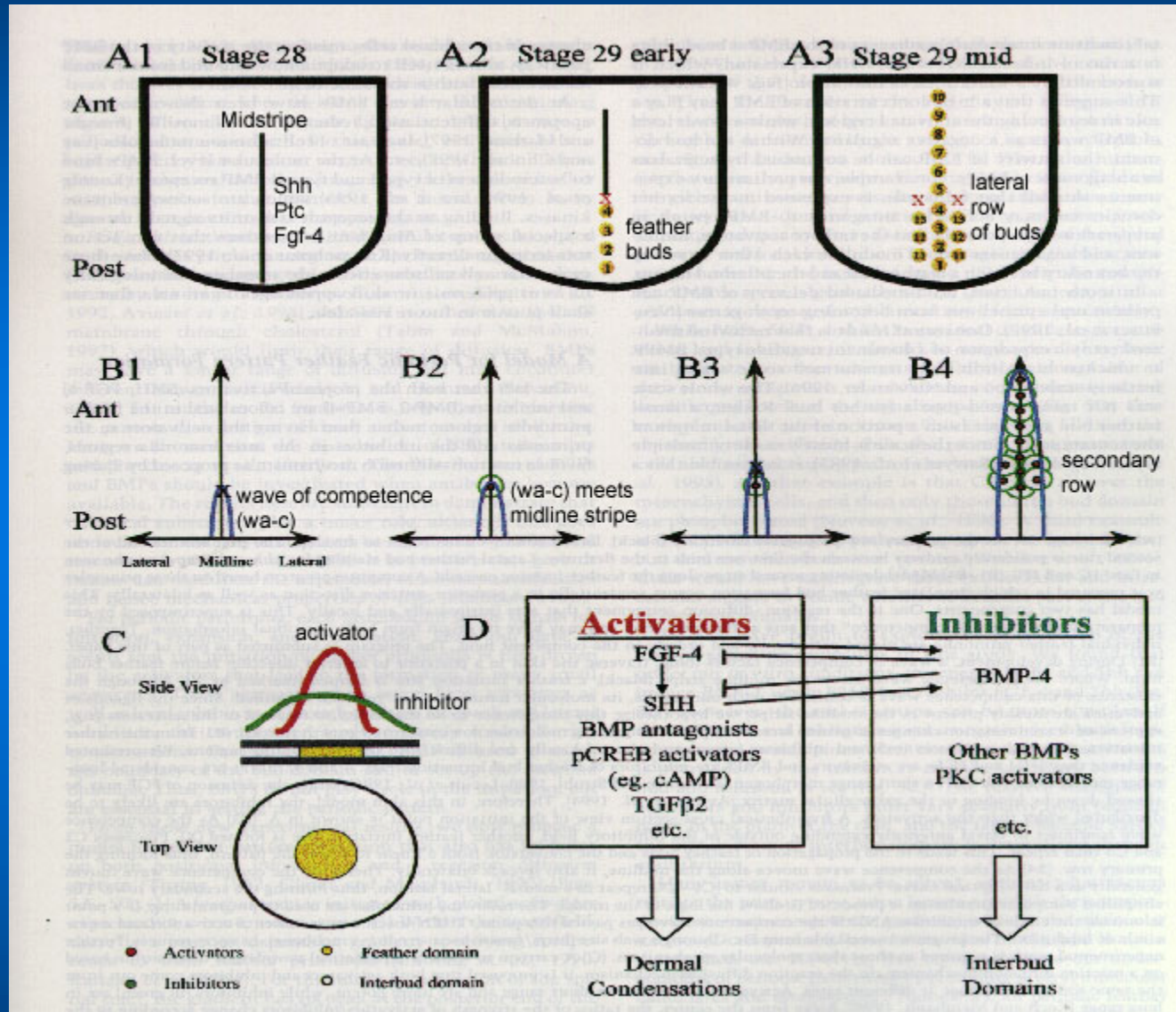
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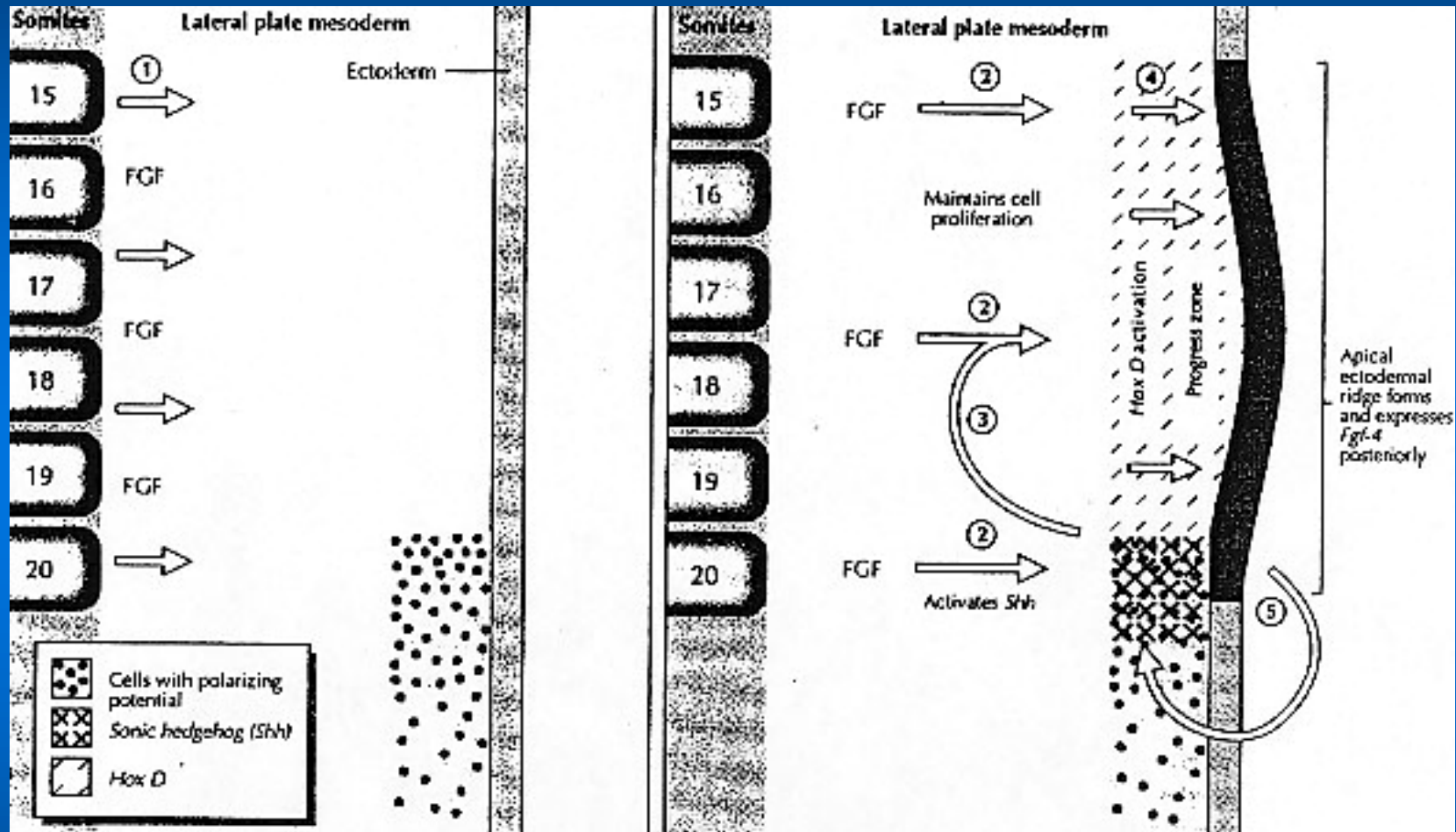
Wool



# Formation of a Chick Limb Bud



# Formation of a Chick Limb Bud







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# Exercises

- Given that the growth factor FGF-2 is capable of inducing wool follicle initiation, would you target primary or secondary follicle initiation as a means for decreasing fibre diameter?
- Given the information on limb bud development and the Table of molecules implicated in follicle regulation, what group of molecules might best be applied to increasing the number of secondary derived follicles?
- From the information on formation of a limb bud, can you construct a working molecular model to explain wool follicle initiation and development and how would you test this model?