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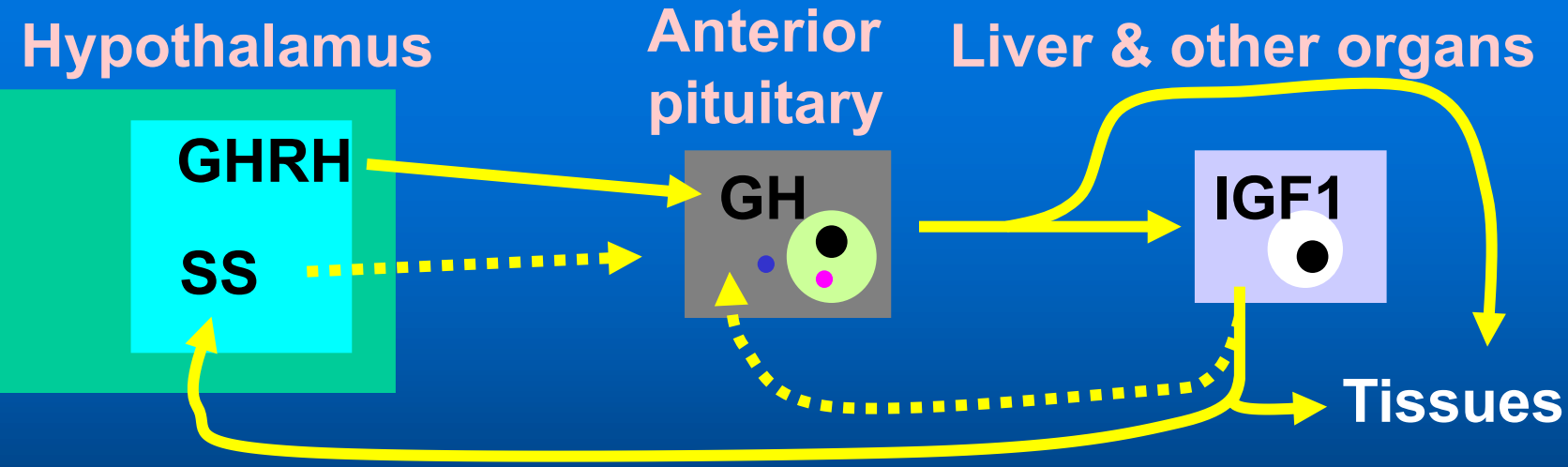
The Effect of Growth Hormone on Wool Production

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr. Peter Wynn, The University of Sydney.



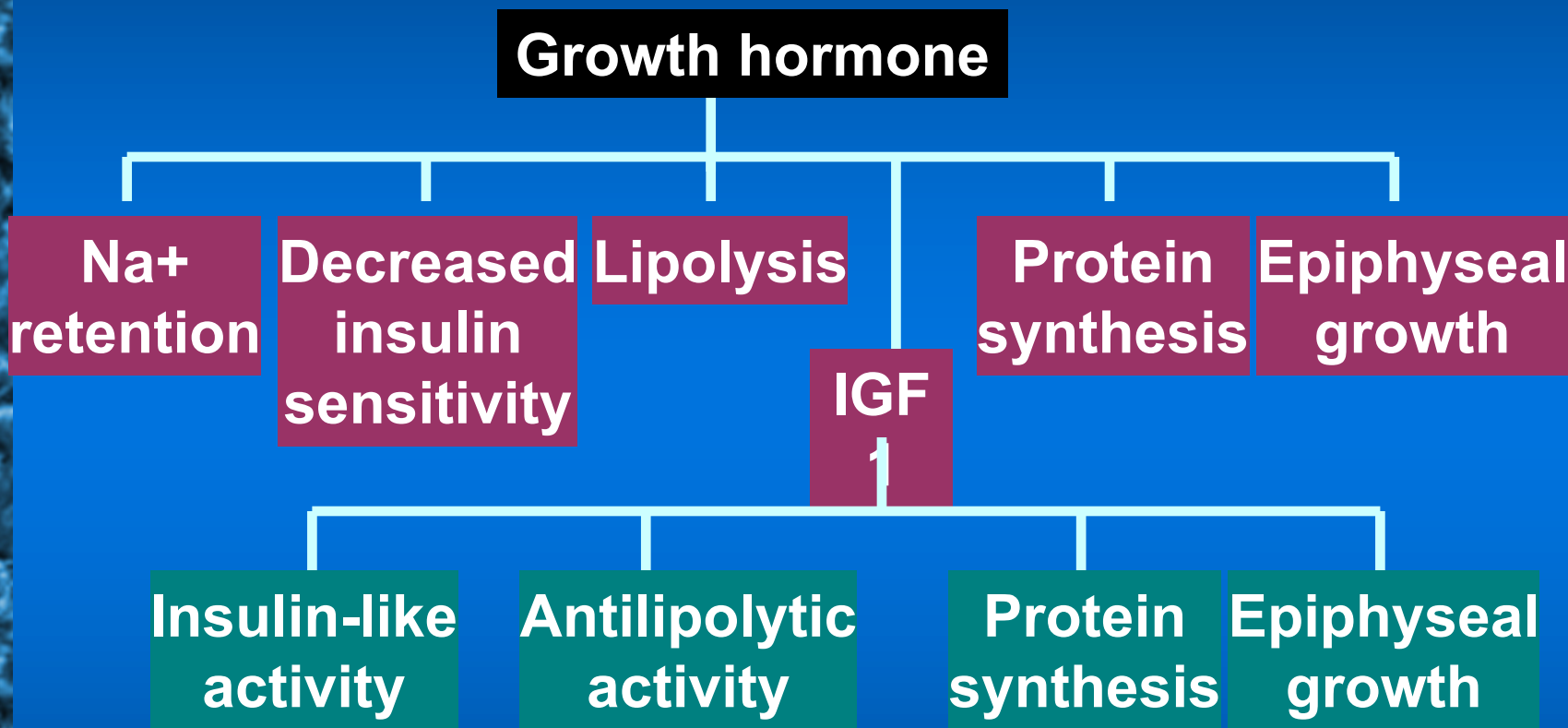
Growth Hormone (GH)

- 191 amino acids long
- released from pituitary
- does not act through secondary endocrine organ
- stimulates production of IGF1 from tissues



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General Actions of Growth Hormone (GH)



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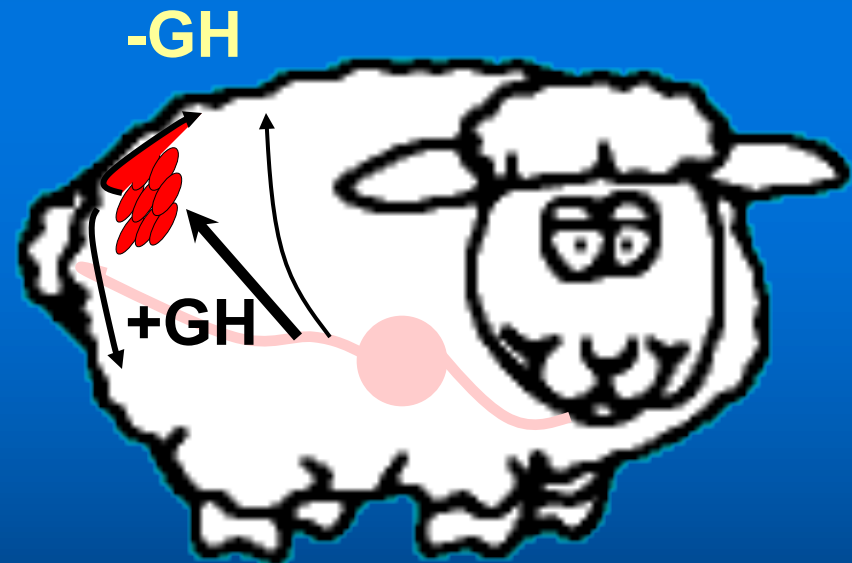


Effect of Growth Hormone on Wool Growth

- wool growth is suppressed by exogenous GH
 - after removal of GH injections, wool growth increases

GH stimulates muscle accretion

After GH stopped, muscle returns to normal and more amino acids available for wool



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Effect of Growth Hormone on Fleece Weight

- GH administration to ad lib fed sheep

	Greasy Fleece weight (kg)	Clean Fleece weight (kg)
Control	5.49	3.04
+GH	6.02*	3.42*

In *ad lib* fed animals there is sufficient nutrients to stimulate both muscle and wool growth.



Effect of Growth Hormone on Wool Follicles

- Local effect of GH on follicles?
 - GH BPs in rabbit ORS and IRS

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