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# Is Protein or Energy More Important for Follicle Activity and Wool Growth?

Produced for the CRC for Premium Quality Wool undergraduate program by;  
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# Is protein or energy limiting wool growth?

- energy requirement for wool growth is low
- protein and energy supply are confounded
  - energy increases microbial protein supply
  - energy spares amino acids from gluconeogenesis
- at similar energy levels, wool growth responds to the level of protein that reaches the intestines

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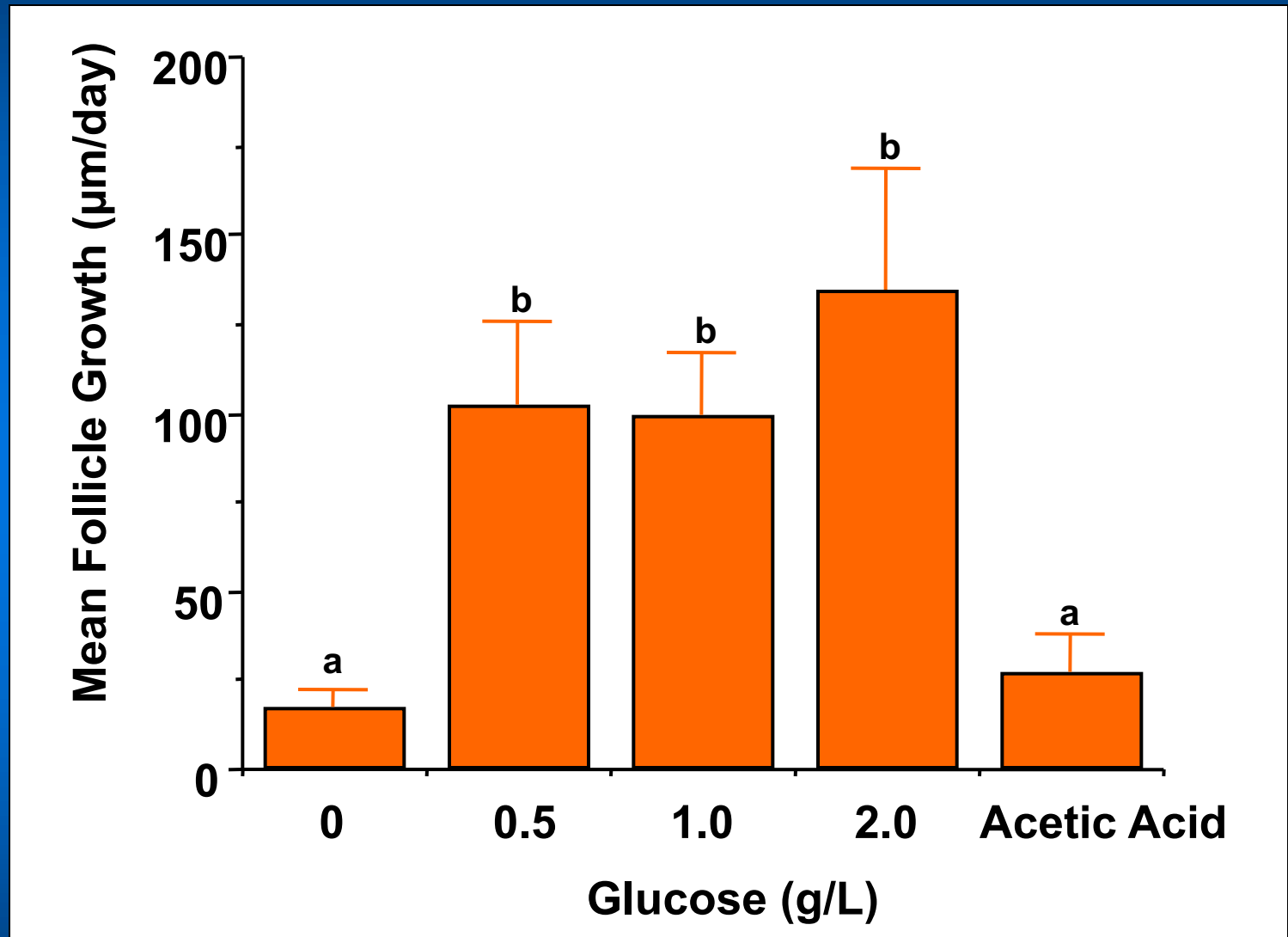
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# Follicular energy requirements *in vitro*



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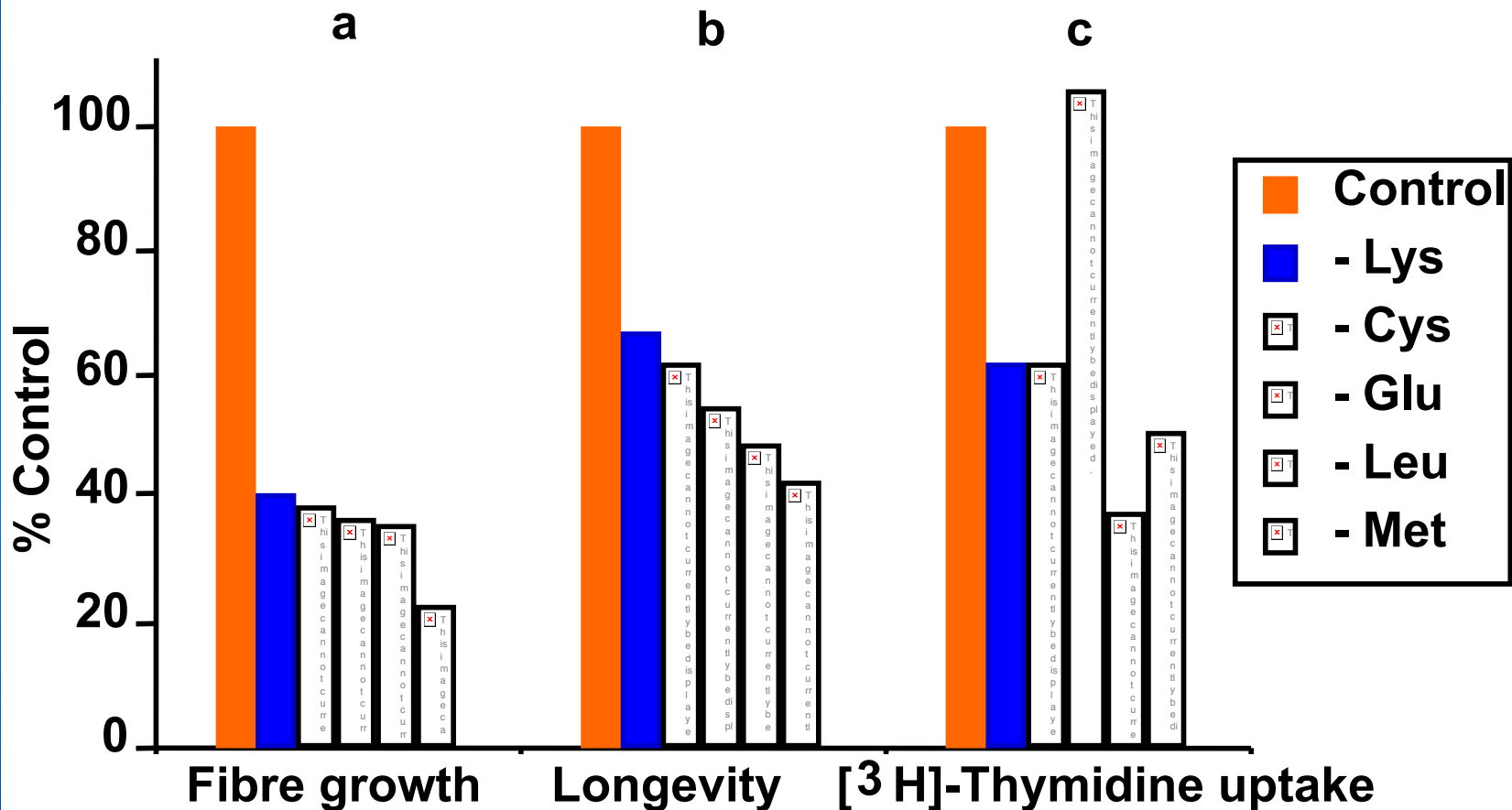
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# Amino acid requirements of cultured follicles



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Michelle Nancarrow

Source: Nancarrow, M.J. and Hynd, P. (1994)