Smooth *vs*. Skeletal Muscle

- Similarities
  - Same contractile mechanism
    - Actin-myosin interaction
  - $[Ca^{2+}]_i$ regulates contraction
  - Similar peak force/area

Smooth *vs*. Skeletal Muscle

- Differences
  - Cell shape/size
    - Smaller
  - Innervation
    - Autonomic *vs*. somatic
  - Site of regulation of contraction
    - At thick filaments vs. at thin filaments
  - Time course of contraction/relaxation
    - SMCs slow compared to skeletal muscle

Smooth *vs*. Skeletal Muscle

- Differences
  - Excitation-contraction coupling
    - No T-tubular system in smooth muscle
  - Degree of shortening
    - SMCs shorten proportionally more than skeletal muscle
      - Force-length curve broader in SMCs than in skeletal muscle

END

Video 1, Module 4