Effect of Diet and Aging on Aorta Responsiveness in the apoE<sup>-/-</sup> Mouse

**Western-type diet**
- Young
  - Severe hypercholesterolemia
  - Moderate atherosclerotic lesions
  - Normal endothelium-independent relaxation to NO donors
  - Impaired endothelium-dependent relaxation to ACh

- Adult
  - Severe hypercholesterolemia
    - Focal impaired endothelium-dependent relaxation to ACh

- Aged
  - Severe hypercholesterolemia
    - Severe atherosclerosis
    - Impaired endothelium-independent relaxation to NO donors
    - Impaired endothelium-dependent relaxation to ACh

**Regular chow diet**
- Aged
  - Hypercholesterolemia
    - Established atherosclerosis
    - Normal endothelium-dependent relaxation to ACh
    - Normal endothelium-independent relaxation to NO donors

- Adult
  - Hypercholesterolemia
    - Moderate/established atherosclerotic lesions
    - Normal endothelium-dependent relaxation to ACh

- Young
  - Hypercholesterolemia
    - None/minimal atherosclerotic lesion
    - Normal endothelium-independent relaxation to NO donors