UA Endocrinology Chief Lawrence J. Mandarino, PhD, spoke on diabetes, muscles and insulin resistance and Cristine E. Berry, MD, MHS, talked about lessons learned in the Tucson Children’s Respiratory Study at the DOM Research Seminar held Dec. 8, 2016, in UAHS Room 8403.
Summary

- In the Tucson Children's Respiratory Study, 1 in 10 participants demonstrated persistently low lung function from childhood.
- Low lung function trajectory was associated with maternal asthma, low lung function in early life, RSV infection, and later life diagnosis of asthma.
- Low lung function trajectory may be associated with COPD.
Why is it important to study this in skeletal muscle?

- Skeletal muscle in insulin resistant patients is characterized by "Metabolic inflexibility" (Mandarino and Kelley), which may be critical for the development of insulin resistance.

What do we know about the mechanisms responsible for fuel selection and metabolic inflexibility in skeletal muscle?

- Randle cycle – applies mostly to chronically contracting muscle like heart and diaphragm.
- What are we working on?
  - Adenine nucleotide translocase (ANT1)
  - Von Hippel-Lindau Factor A Domain-containing Protein 8 (VHAD8)
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