



Priority Statement Title: Determination of Musculoskeletal Properties for Subject-Specific Applications

Priority Statement Code: LF4C

Domain: Cell, Joint, Limb, Whole Body, Function

Priority Statement

Background and Relevance

- For modeling, need better subject-specific measures.
- Some data is old, some non-existent, some based on small samples
- Data does not represent the entire lifespan and a wide range of populations.
- Average/baseline physical properties may not represent current state of tissue.
- Analog of the human genome project, which has enabled discovery...

Objectives

Develop and share comprehensive, accurate data critical to individualized biomechanical applications. Subject specific properties include, but are not limited to, anatomic, anthropometric, morphologic, material, structural, and physiological properties.

Recommended Actions

1. Identify data necessary to estimate subject specific properties for a wide range of individuals.
2. Develop effective methods of determining subject specific parameters.
3. Identify strategies to create, maintain, and moderate a shared data repository.
4. Identify existing data sets that would be appropriate to incorporate in the repository.