



Priority Statement Title: An International Database for Biomechanics (IDB)

Priority Statement Code: CJ3B

Domain: Limb/Joint/Function/Cell

Priority Statement

Background and Relevance

In order to promote credibility a standard database and a method for sharing data is required. Previous examples of this type of database include the 'CGA normative database' and 'gaitabase'. Both examples run based on limited data sets and in the case of the CGA normative database appear to no longer be active. Barriers to advancement include the lack of initiative to temporarily focus on administrative and infrastructure needs of this effort, as opposed to traditional results based isolated research efforts. Outside of the accepted literature based approach, it is often not in the best interest of a researcher to spend time and money developing ways to communicate results, ultimately limiting reproducibility, collaboration, and translation of otherwise promising work. Creating a publicly accessible database for biomechanics would be valuable at many levels. **A database for sharing biomechanical data should facilitate research collaboration, improve standards and provide a self-checking mechanism for the reporting of data.**

Objectives

- Create a database sharing of biomechanical data that is inclusive of kinematic, kinetic, material properties and other clinical biomechanical data.
- Establish minimum reporting standards required for reproducibility to enhance quality.
- Promote mechanisms to encourage sharing and joint responsibility for data quality assurance
- Promote the role of dissemination and databases to establish efficiency and promote collaborations

Recommended Actions

- Lobby for working party to establish the requirements for the database.
- The National Library of Medicine (NLM) has historically performed this function and would be an obvious first choice to facilitate database management. An initial statement of interest should be prepared and submitted to the NLM.
- Implementation of contribution clauses in grant contracts and publication copyright statements to ensure the immediate upload of raw data prior publication.
- Promotion of the value of dissemination and use through multiple means.