REDCap (Research Electronic Data Capture) is a database product that can improve the infrastructure and efficiency of many clinical research projects. Contemporary clinical research presents operational and legal demands that frequently exceed the capabilities of spreadsheets and small databases (such as Excel and Access). These unmet demands include:

1. a helpful interface that validates user input to prevent dirty values of contaminating the database,
2. concurrent and distributed data entry so that multiple people can interact with it simultaneously,
3. dynamic content that reacts to previous responses so that important items are not overlooked, yet irrelevant items are avoided, and
4. features that satisfy HIPAA and HITECH regulations –such as user-audit logs, transaction logs, and distinct user groups that restrict access of certain PHI variables to only the necessary personnel for specific tasks.

The REDCap system addresses these, and several other requirements of most clinical research. Users enter and retrieve data through a customizable browser-based interface. Data are stored in an enterprise-grade relational database (MySQL). REDCap is free to research universities, and has a strong international presence. It is used in over 60,000 projects from 565 institutional partners (<http://project-redcap.org/>). This popularity has produced a large suite of documentation and a strong user community. Furthermore, researchers at different institutions (using different authentication systems) can login into the same REDCap project, permitting multi-site collection and collaboration.

The first OUHSC REDCap project started in January 2012, and has steadily gained more attention. Due to the recent successes and momentum, Campus IT has committed the people and hardware to support campus researcher who requests it. The IT support soon will be complemented by a new governance council that provides additional guidance. A major goal of these campus efforts is to facilitate research data systems that contribute greater capabilities, impose lower costs, and complies with legal regulations.

The poster will include additional details of using REDCap in clinical research, and it sketches different scenarios where REDCap might and might not be a good fit.