

Meeting abstract

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Slim-Prim: an integrated data system for clinical and translational research

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Background

The Biomedical Informatics Unit (BMIU) of the UT Clinical and Translational Science Institute has developed an integrated data system called Slim-Prim (Scientific Laboratory & Patient-care Research Information Management system). Slim-Prim is a versatile and user-friendly web-based application that allows researchers to securely gather, store, manage, maintain, report and share their data. The system allows researchers and clinicians to design and administer databases for their studies with little to no technical training. The Slim-Prim system is designed to assemble data in many different formats and from many different sources using concept mapping. The system is expandable allowing for the addition of user-customizable interfaces, for example for storage and analysis of radiographic, DNA sequence or microscope image data. Slim-Prim offers a variety of generic forms to collect data for various studies. For example, forms for collecting demographic data, prospective subject recruitment information, patients' outcomes data and Biorepository data have been developed and used within Slim-Prim. The use of standardized vocabularies (e.g. ICD-9 codes) constrains research staff and allows direct federation of data, for example, with the NIH caBIG cancer bio-grid. Furthermore, these standard vocabularies make collaboration a much more manageable option for researchers, by mini-

mizing language-value variation between studies. The Slim-Prim system has the potential to become a valuable teaching tool for faculty and educators within the biomedical community. For example, Slim-Prim could contain hypothetical patient data with a range of diagnoses and allow students to test different drug and treatment regimens for each case. Because the BMIU works closely with the Office Educational Technology, we can cross-link this system with the current Knowledge Informatics for Science and Medical Education and Training (KISMET) wiki teaching technology at UTHSC. Slim-Prim's generic, yet robust design allows the system to conform to almost any environment, making the software tool an invaluable new asset to the medical, scientific and research communities.

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