**Bankhead-Coley Cancer Research Program**


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*Radiation Oncology*
*University of Florida*


*2009 Program*
*Florida Research Challenge*
*(2-year project)*

**Project Title:** Securing the Power of Interoperability in Radiation Oncology


**Project Summary**: Radiation therapy devices are continuously being developed by vendors without much consideration to interconnectivity and interoperability, thus presenting greater technical challenges with regard to efficient sharing, transfer, and storage of electronic radiotherapy data. Furthermore, non-uniform data archive and communication standards hinder the development of universally accessible electronic health record systems for cancer patients treated with radiation therapy. The recognition of these issues within the healthcare system has led to the Integration of the Healthcare Enterprise in Radiation Oncology (IHE-RO) initiative, which seeks to promote the coordinated use of established standards. It is anticipated that the IHE-RO compliant software developed by industry will eliminate ambiguities, reduce configuration and interface costs, and ensure a higher level of practical interoperability. The elements of a common platform will fulfill the expectations and requirements of an individual-user electronic health record for all cancer patients. The aims of this project are to establish a consensus view of interconnectivity and interoperability problems; develop a technical framework for the implementation of a seamless workflow in radiation oncology; and to test the interconnectivity and interoperability of this framework among radiotherapy system vendors. The outcomes are expected to improve efficiency and safety in radiation oncology facilities while reducing costs.