

NCI Center for Bioinformatics Informatics Seminar Series

Data Integration Support Plan for Cancer Research

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1:00 until 4:00 PM
June 4, 2004

6116 Executive Blvd., Conf. Room 6006

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Michael Becich, MD, PhD - Director of Oncology and Pathology Informatics
John Gilbertson, MD - Director of Research & Development, and
Rebecca Crowley, MD, MS - Assistant Professor
University of Pittsburgh Cancer Institute

At the University of Pittsburgh Cancer Institute (UPCI) we are developing a model for cancer data integration focused on five key areas: (1) clinical trials; (2) tissue banking; (3) outcomes data; (4) biomarker data integration - genomic and proteomic; and (5) electronic medical record data. The core of the University of Pittsburgh model for vertical integration is the modification/enhancement of traditional clinical information systems (such as the Anatomic Pathology LIS, the Clinical Pathology LIS and Cancer Registry) so that they can deliver clinical information, tissue samples, core laboratory services and outcomes data to transitional scientists.

These efforts follow the roadmap for supporting cancer center informatics (oncology informatics) first outlined by the American Association of Cancer Institutes (AACI), which we have modified with principles outlined by NCI's Long Range Planning Group's Cancer Informatics Infrastructure Plan. This interconnected set of projects and programs is supported by several NCI initiatives including: (1) Cooperative Prostate Cancer Tissue Resource (see <http://www.prostatetissues.org>), which provides support for tissue banking informatics systems; (2) Directors Challenge effort (see <http://dc.nci.nih.gov/>), which supplies bioinformatics support for genomic data sets; (3) Shared Pathology Informatics Network (see <http://spin.nci.nih.gov/>), which provides information extraction tools for data mining of pathology reports; and (4) caBIG (see <http://cabig.nci.nih.gov/>), which will allow us to further develop key components of our data integration grid, particularly in the areas of clinical trials and tissue banks/pathology tools.

The integration is not only vertical but also horizontal – UPCI is part of a statewide network of cancer centers called the Pennsylvania Cancer Alliance Bioinformatics Consortium (see <http://pcabc.upmc.edu>), which is a test bed to demonstrate the Cancer Data Integration model we are developing.

This talk will begin by describing our overall shared vision of an integrated environment for cancer research (Becich) followed by a description of several areas in which we have maturing development efforts (Gilbertson, Crowley). Throughout the talk we will highlight barriers and difficulties, as well as successes, and discuss our plans for using the NCICB resources in our data integration projects.

Following the presentation there will be an open discussion.