



# JPL Informatics Team Monthly Report

## March 2010



## Links of interest

<http://cancer.jpl.nasa.gov> (informatics center)

<http://edrn.nci.nih.gov/> (ops)

<http://nci-test-ws04-2-v.nci.nih.gov/> (test)

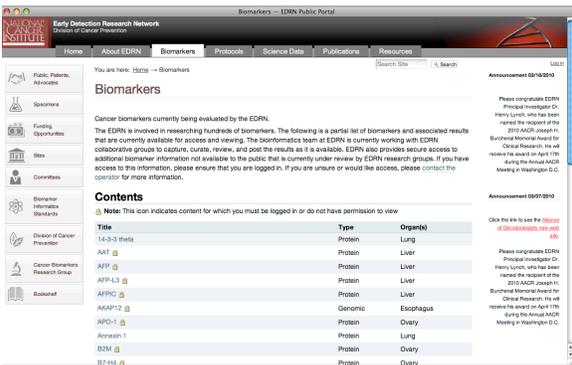
## Portal 3 Delivered to NCI

The latest and greatest (not to mention snazziest) version of the Portal is undergoing testing at NCI and will be going live later this month. This article tells what makes this the best EDRN portal yet.

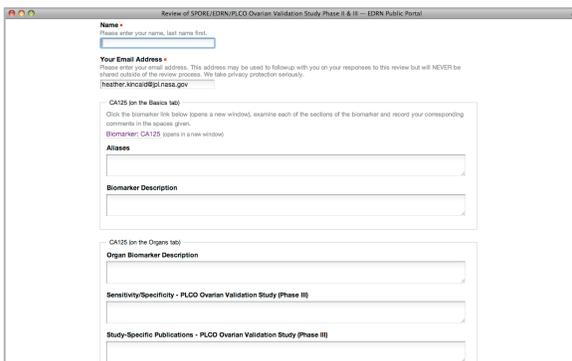
The Early Detection Research Network (EDRN), headquartered at the National Cancer Institute (NCI), proudly unveils its remodeled home on the internet with a brand new public portal. Currently undergoing final testing, EDRN expects the new portal, dubbed Portal 3, to go live in April 2010. Portal 3 replaces the old EDRN portal with a snazzy new look and feel, site-wide "live search", and deeply-detailed information on biomarkers, funding opportunities, and more. Developed by EDRN's Informatics Center, the portal takes advantage of next-generation technologies like Plone and AJAX to provide an interactive experience through a web browser that's more like a real desktop application.

# Portal 3 Next Steps and Future Plans:

- Test on NCI Server
- <http://edrn-test.nci.nih.gov/>
- Release to NCI Production Server
- Release more granular security
- Begin ERNE Lite Integration

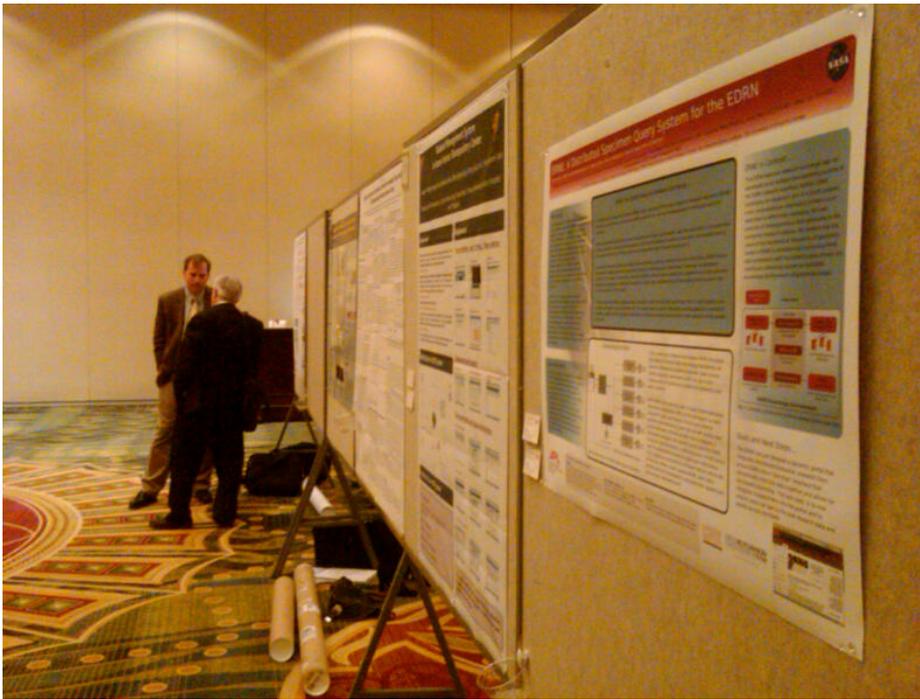


## Biomarker Reviews occurring in April and May



- Breast and GYN will review Ovarian PLCO Markers (PI: Cramer)
- Prostate and Urologic will review TSP, hk2, hk4 and hk11 (PI: Sanda)
- GI will review Meltzer 8-marker panel (PI: Meltzer)
- Reviews will be conducted using the new online review worksheets!

**Online Biomarker Review Worksheet**



# Publications, Meetings and Outreach

The conference presented an excellent opportunity to better understand the needs and expectations of the primary user community for ERNE, as well as to present our architecture and approach to unifying distributed specimen collections.

The poster session was a success. Throughout the session people stopped by to listen and ask questions, and appeared particularly interested in the CDE-driven approach we have adopted for bringing together different resources from different organizations while allowing them to maintain their operational autonomy.

Andrew spoke at length with a number of people about ERNE and was able to answer questions about the CDEs and how we use Product Servers to translate ERNE queries to site queries. Several other posters in the room were also devoted to describing informatics solutions for various portions of the specimen-processing spectrum, but most were either closed proprietary systems, or lacked the extensibility and inclusiveness of ERNE.

caTissue Suite and caBIG in general were well represented at the meeting, with Ian Fore chairing one of the sessions on "Information Solutions for Biospecimen Science". Even so, there was a good deal of interest in our "non-invasive" approach to connecting sites together.

The fact that there was standing room only in all of the meetings during the two day conference highlights the importance of this subject to the broader community. The push to move forward with ERNE-lite is well timed to capitalize on the current momentum.

Biospecimen  
Research Network  
Symposium in  
Bethesda, MD

March 24-25

Attended by Andrew Hart

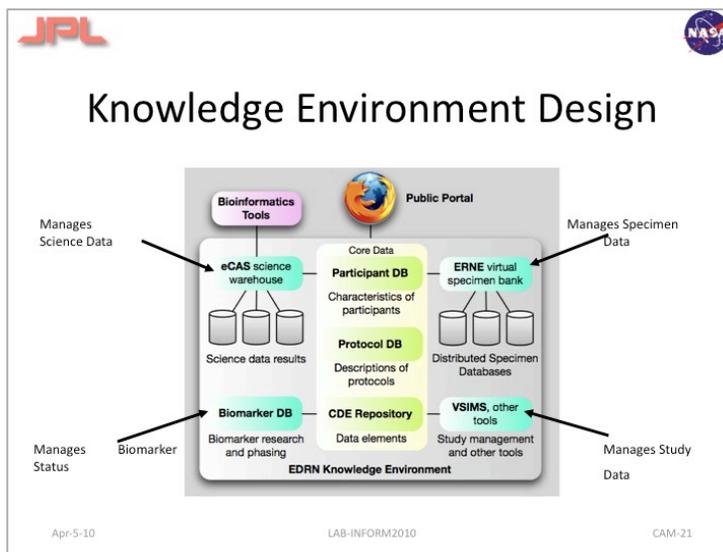
Lab Informatics 2010

Philadelphia, PA

March 29 - 30

Presented by: Chris Mattmann, Ph.D.

**An Architecture-Based Framework  
For Biomarker Discovery And  
Management In The Early Detection  
Research Network**



**Topics Covered at the 5th Forum on Laboratory Informatics Conference:**

- Three informative workshops focusing on ELN strategies, LIMS performance and regulatory requirements
- A well-rounded keynote case study demonstrating how to improve the throughput of bio-analysis lab from both systems and scientific perspectives
- Optimal strategies on ELN implementation challenges during scale up from Merck & Co.Inc.
- Pioneering case studies on cloud computing and virtualization to achieve more with less
- Developing and optimizing data management processes to assist business decision-making
- Discussing challenges of Electronic Records Management in LIMS/LIS and ELN integration
- Ensuring quality and patient safety with advanced and integrated lab information and automation technologies

Chris presented the following:

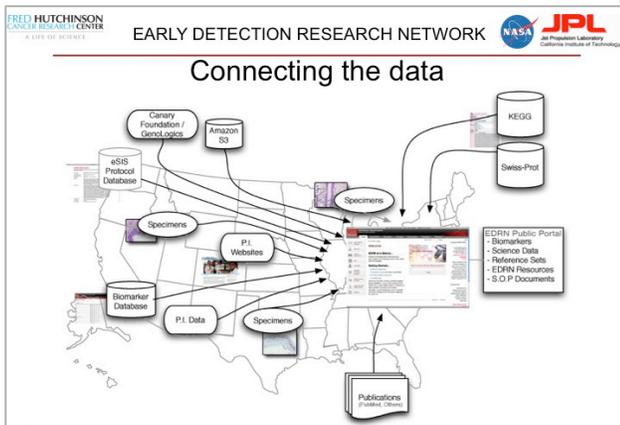
**An Architecture-Based Framework For Biomarker Discovery And Management In The Early Detection Research Network**

The NIH/NCI's Early Detection Research Network is a virtual federation of over 40 institutions all with the common goal of identifying promising cancer biomarkers as indicators of early disease. With such a diverse, heterogeneous conglomerate of science across organ-based collaborative groups (lung, breast, GI and prostate), unifying the informatics architecture and systems to enable data to be discovered and accessed is a challenging task. Since 2001, NASA's Jet Propulsion Laboratory has been involved in addressing this challenge, culminating in 2003 with JPL's ascension to the lead EDRN Informatics Center. This session will address how EDRN Informatics Center builds out a widely successful program and:

- Provide the unifying grid-based architecture for informatics systems at each EDRN participating institution
- Develop informatics systems and tools to share and discovery specimens, biomarkers, raw science data results and study management information
- Help NCI track research progress and ultimately science results

Coming Soon....

# Presentations



Bio IT World Conference & Expo '10

Joint presentation from JPL & Genomics

Highlighting the Canary-EDRN Non-Smokers Lung Project

Boston, MA

April 20 - 22

Presented by: Dan Crichton and James

# Software

- ERNE Lite

The screenshot shows the 'Specimen Collections' page on the EDRN website. It includes a navigation menu, a search bar, and a table of specimen collections. The table has columns for Site, Type/Count, EDRN Protocol, and Collaborative Group.

Site	Type/Count	EDRN Protocol	Collaborative Group
Beth Israel Medical Center	Blood (450)	Validation of Protein Markers for Lung Cancer Using CANET Sets and Proteomics Techniques	Lung and Upper Aerodigestive
Fox Chase Cancer Center	Bone Marrow (80)		
Centers for Disease Control	Sputum (8770)	Barnet's Esophageal Methylation Profiles	GI and Other Associated
M.D. Anderson	Blood (128)	Expression based markers for breast cancer detection	Breast/GYN
Brigham and Women's Hospital	Tissue (640)		
JPL Department of Urology	Urine (600)	SELDI Phase I Assay Validation-Prostate	Prostate and Urologic
University of Colorado	Tissue (2076)	MALDI Dilation Data: Randoeph	Prostate and Urologic
NYU School of Medicine	Stool (87)		
Creighton University	Blood (253)	EDRN-WHS Pre-Clinical Colon Ca Specimens	GI and Other Associated

- eMatch
- EDRN Social Networking and Science

