

# Future of Pathology Informatics and the LIS

Pathology Informatics 2012

# Schedule

- 1:30–1:40
  - Review of the Strategic Summit and Overview of This Workshop, Mark Tuthill
- 1:40–2:05
  - Total Laboratory Information System Functionality, Bruce Friedman
- 2:05– 2:30
  - Innovation in the LIS, Ulysses Balis
- 2:30– 3:00
  - Experiences with LIS-EMR Interfacing, Walter Henricks
- 3:00 – 3:30 Refreshment Break
- 3:30 – 4:00
  - Discussion of LIS Scope and Functionality Project (LIS-SAF), Andrew Splitz, Larry Wimberly
- 4:00 – 5:30
  - Roundtable Discussion around Current Version of the White Paper LIS Scope and Functionality Document
- 5:30 - 7:00
  - Trainee Reception - New Orleans Room

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## API Strategic Summit: The Future of Pathology Informatics and the LIS

### Summit Description:

There is a developing trend of broad adoption in healthcare computing of the single-vendor, enterprise-wide solution with decision-making relating to computer system purchase and deployment moving away from pathologists and toward hospital executives, primarily CEOs and CIOs. Such vendors offer a very broad array of software modules and often lack specialized knowledge about laboratory work requirements. Hospital executives, the HIT decision-makers, may similarly lack such knowledge. This emerging hospital computing model may thus portend significant future functionality gaps in lab operations and threats to patient safety and the quality of care.

Prompted by these events the goals of the Strategic Summit are the following: (1) identify the broad array of challenges and problems currently facing pathology informatics and the LIS industry; (2) develop solutions and reactions that can help to solve or ameliorate them; and (3) knit all of these solutions and reactions into a comprehensive white paper following the conference, including an action agenda, that can be used as a guide in the near future by pathology informaticists and vendors of LISs and LIS support software.

### For questions please contact us at:

**J. Mark Tuthill, MD**  
Division Head, Pathology Informatics  
Henry Ford Health System, K-6 Pathology  
2799 West Grand Blvd.  
Detroit, MI 48202  
[MTUTHIL1@hfhs.org](mailto:MTUTHIL1@hfhs.org)

[Strategic Questions](#)[Schedule/Links to Presentations](#)[Speakers](#)[Event Photos \(coming soon\)](#)

# Strategic Summit Overview

***Thursday, June 7***

Wine and cheese reception

Dinner

Welcome Dr. Raymond Aller, API President

Goals and objectives of the Strategic Summit, Dr. Mark Tuthill

After-dinner speaker Dr. Michael Becich:

**The Role of Pathology Informatics and the LIS in Personalized  
Medicine**

# Strategic Summit Overview

## ***Friday, June 8***

Opening remarks/Organization of the day, Dr. Mark Tuthill

Faculty #1 Dr. Bruce Friedman: "Forging a New Data-Driven IT Relationship between Pathology and the CEO Suite"

Vendor #1 Soft

Faculty #2 Mr. Dennis Winsten: "Enterprise-wide integrated LIS or Best-of-Breed LIS? Consideration of Epic's "Beaker" LIS as a Case Example"

Vendor #2 Pawan Singh and Megan Schmidt - Sunquest Information Systems "Laboratory Interoperability and Strategic Value"

Panel Discussion

(Faculty 1 and 2; Vendor 1 and 2; audience participation)

# Strategic Summit Overview

Faculty #3 Dr. Myra Wilkerson: "Meaningful Use and Useful Software"

Vendor #3 Michael Tarwater – John Muir Health System (McKesson Corporation) "Best of Breed Laboratory Information Systems are Still Required as your Core Laboratory Production Engine Regardless of your EHR Vendor"

Faculty #4 Dr Alexis Carter: "The Future of Laboratory Information Systems (and Pathologists)...Dependent on Integration of Genomic Variants or Not?"

Vendor #4 JD Nolen MD, PhD, MSPH – Cerner  
Cerner Lab...Building for What is Next

Panel Discussion  
(Faculty 3 and 4; Vendor 3 and 4; audience participation)

# Strategic Summit Overview

Faculty #5 Dr. Ulysses Balis “The New frontier of Encoded Data and its implications on the intersecting realms of LIS & EMR schemata “

Faculty #6 Dr. John Sinard: "Pathology and the LIS in the era of the EHR from the perspective of the CAP DIHIT Committee"

Faculty #7 Dr. John Gilbertson: "A unique and valuable asset for the enterprise: pathology (and LIS) opportunities in the age of the EMR"

Panel Discussion (Faculty 5, 6, 7; audience participation)

Conference summary and take-home lessons

# Road Map to a Bright Future for Pathology Informatics and the Laboratory Information Systems

*A Summary and Analysis of the  
Proceedings of the API Strategic  
Summit*



# White Paper

## I. Introduction

# The Framing Questions

- What is the value of the LIS to pathology departments and how is it documented and demonstrated?
- What is the value of the laboratory service line to a health system and how is it documented and demonstrated?
- What parts of the “EMR” should pathology seek to ‘control’: e.g. results reporting, order entry, outreach, POCT, LIS access to the EMR, etc.; and what are the opportunities for pathology when a new EMR is being considered?
- How can Departments of Pathology get stronger representation in the C-Suite – should we be pushing for a CPIO in large health centers?
- How can Departments of Pathology establish stronger “informatics” knowledge (internally) and how can Departments make better informatics decisions?

# The Framing Questions

- How can Departments of Pathology establish better working relationships with LIS vendors?
- How can Departments of Pathology work together on information standards (and mandates) that effect Pathology?
- LISs are unable to adequately process test results from molecular pathology and the anticipated -omics labs; how will such results be presented in the EMR?
- How to address insufficient integration between digital pathology systems and LISs?
- How to improve the inadequate understanding on the part of hospital CMIOs and CIOs of clinical labs operations and functionality requirements of the LIS?

# The Framing Questions

- Labs being starved for capital funding whereas adequate budgets for EMR projects. How can this be remedied?
- Integration of the clinical lab and pathology results into the EMR results in errors and poor formatting. How can this be remedied?
- CIO requiring labs to install EMR laboratory application such as Epic's Beaker as part of an enterprise-wide solution. These systems lack broad functionality. How can this be addressed?
- How do we expand the pathology informatics division within a department of pathology when we are unable to recruit adequate talent?

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# The Framing Questions

- Pathology departments are being asked to do more testing with a lower budget; looking for efficiency gains from the LIS. How does this square in the face of previous questions?
- To the extent that LIS vendors, seeing a mature market and do not bring new solutions to the market, should pathology informatics units in academic centers start to develop software labs to fill this void?
- In an era with the EMR dominating, it appears now that the LIS be relegated merely to the role of a data feeder system to the EMR, stifling lab innovation. How do we address this?

# White Paper

## **II. Defining and Selecting a Best-of-Breed (BOB) laboratory information system (LIS)**

# White Paper

## **III. Why Pathologists Should Choose Best-of-Breed LISs for Their Labs**



# White Paper

## **IV. A Closer Look at the Historic Lab Computing Model that Developed in Hospital Pathology Departments**

# White Paper

## **V. Defining Total LIS Functionality (T-LISF)**

# White Paper

## **VI. Defining the Enterprise Wide Solution (EWS)**

# White Paper

## **VII. Why Embedded LISs Generally Do Not Rise to the Quality Level of Best-of-Breed**

# White Paper

## **VIII. Additional Functionality Problems with Embedded (Integrated) LISs**

# White Paper

## **IX. Additional Functionality Problems with Embedded (Integrated) LISs**

# White Paper

## **X. The Overarching Mission of Hospital-Based Pathologists and Lab Professionals**

# White Paper

## **XI. The Complex Business Model of Hospital-Based Laboratories**



# White Paper

## **XII. Beaker as an Example of an LIS Embedded in an EWS**

# White Paper

## **XIII. Point-Counterpoint Regarding the Deployment of an EWS Embedded LIS**

# White Paper

## **XIV. Beaker as “Free Software”; Cost Factor of an Embedded LIS**

# White Paper

## **XV. Interoperability (Integration) of Modules in a Classic LIS**

# White Paper

## **XVI. More On Lab Outreach**

# White Paper

## **XVII. Roadmap of Ideas & Lessons Proposed Thus Far**

# White Paper

## **XVIII. Different Perspectives of Pathology & Hospital Executives Regarding T-LISF**

# White Paper

## **XIX. Crafting an Integrated BOB LIS Solution that Will Satisfy Hospital Executive Officers**