

BRIDGING THE GAP BETWEEN HEALTHCARE IT AND THE LABORATORY

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ABOUT TODAY'S SPEAKER



- Technology Manager, Laboratory Applications — Sanford Health
- ASCP certified as a Clinical Laboratory Scientist
- Master's in Healthcare Administration
- Chair, ND Clinical Laboratory Practice Board
- 20+ years in lab science, pathology operations, and healthcare IT
- Oversees Epic Beaker, instrument interfaces, and point-of-care systems



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DISCLOSURE

- I have no conflict of interest to disclose


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SESSION SYNOPSIS

This session provides laboratorians with an insider's view of the rapidly evolving healthcare IT landscape and its direct impact on laboratory operations. You will learn:

- What drives IT decision making
- How IT choices affect workflow and integration
- How to build stronger partnerships with IT
- How to prepare the lab for future technologies



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WHAT IS YOUR LAB'S BIGGEST IT CHALLENGE?

- Interoperability
- Downtime
- Automation Support
- Analytics
- Cybersecurity
- Communication
- Many others?!?




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LEARNING OBJECTIVES

- Describe current healthcare IT priorities and challenges.
- Evaluate emerging technologies and their impact on lab operations.
- Identify strategies to strengthen IT-lab collaboration.



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WHY THIS MATTERS IN 2026

- Increasing system complexity
- Rising expectations for speed and accuracy
- Staffing shortages
- Cybersecurity threats
- Pressure to modernize




The image shows a horizontal timeline of healthcare technology. From left to right: 1800s (Microscopes), 1970s (Automation), 1990s (Informatics), 2000s (Molecular Diagnostics), and 2020s (AI & Robotics). Each era is represented by an icon: a microscope, a computer monitor with a bar chart, a DNA helix, a robotic arm, and a futuristic interface.

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HEALTHCARE IT PRIORITIES IN 2026

- Interoperability
- Data modernization
- Cloud migration
- Cybersecurity
- Budget constraints




The diagram shows a stack of three blue cylindrical layers. The top layer is labeled 'Cloud Applications' and contains icons of a laptop, a tablet, and a server rack. The middle layer is labeled 'APIs & Integration' and contains icons of gears and a network diagram. The bottom layer is labeled 'Data Modernization' and contains icons of a server rack and a shield. An upward-pointing arrow is above the top layer.

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IT CHALLENGES IMPACTING THE LAB

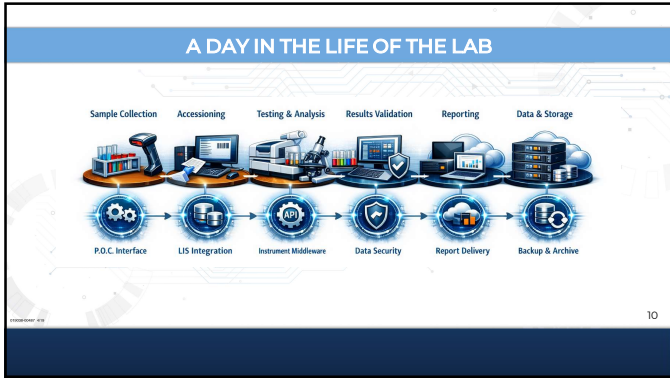
- Fragmented systems
- Middleware overload
- Downtime and patches
- Slow change-control
- Limited IT staffing



The diagram shows a globe with a network of colorful lines (red, yellow, green, blue) connecting various icons representing different systems and data flows. There are also icons of a server rack, a cloud, and a warning sign with a red 'X'.

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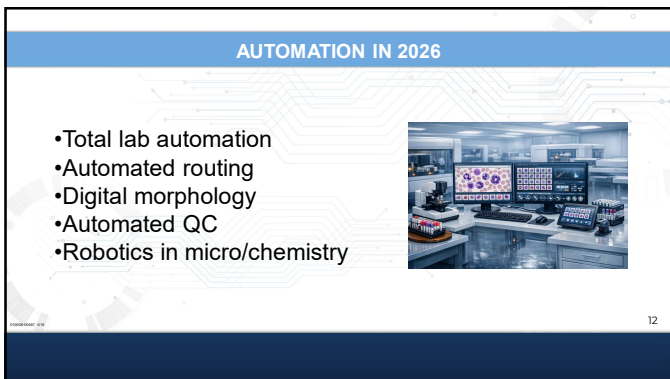
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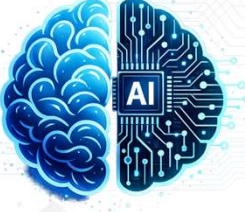


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AI IN THE MODERN LAB




- AI-assisted validation
- Predictive QC
- Reflex optimization
- Pattern recognition
- Workload balancing

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THE CONNECTED LABORATORY

- HL7
- LIS ↔ EHR ↔ Public health
- Real-time data
- Fewer manual steps
- Better visibility



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DATA-DRIVEN OPERATIONS


- TAT dashboards
- Error monitoring
- Instrument utilization
- Staffing predictions
- Quality insights



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THE IT-LAB COMMUNICATION GAP


- Different vocabularies
- Different priorities
- Different timelines
- Misaligned expectations
- Limited cross-training



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BRIDGING THE GAP



- Joint planning
- Shared KPIs
- Cross-training
- Clear escalation
- Regular touchpoints

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PREPARING FOR THE FUTURE

- Scalable systems
- Strong cybersecurity
- Prioritize interoperability
- Workforce development
- IT-lab partnerships



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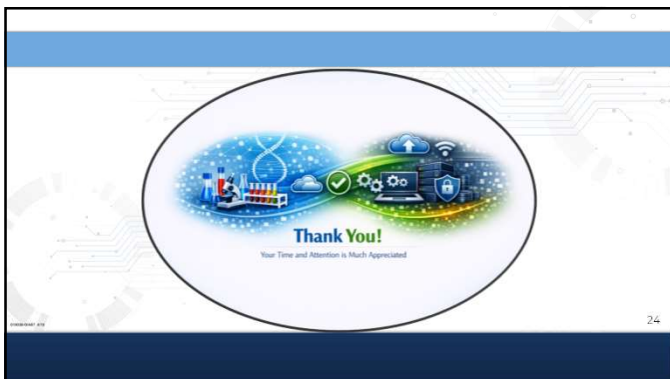
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