

May/June 2012

bioMérieux Connection

Newsletter

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Microbiology Pathway. From Collection to Care.



ACCELERATE
REPORTING

IMPROVE
OUTCOMES

CONTROL
COSTS

INCREASE
EFFICIENCY

OPTIMIZE
RESOURCES



There are many ways
to advance your Microbiology lab.
There is only one **Pathway.**

Join Us at asm2012 June 17-19 San Francisco, CA

BOOTH #1301 TOUR THE LAB OF THE FUTURE

Our personal Lab Tour Guides are ready to walk you through the Lab of the Future in Booth #1301 during the asm2012 General Meeting Exhibits. The tour is available by registration only, so reserve your place today. Tour times take place every 15 minutes throughout exhibit hours. Register online at: www.biomerieux-usa.com/asm2012

While in the Lab, you will interact with the newest advancements in microbiology technology:

- *Mass Spectrometry* – microbial IDs in minutes*
- *Smart Incubator System – automated plate processing solution providing high quality images*
- *Next Generation Blood Culture – evolutionary fully-automated blood culture with optimized optics and algorithms*
- *Also see the integration of our current Full Microbiology Laboratory Automation offerings such as automated plate streaking with PREVI® Isola through Myla®!*

*Research use only. Not for clinical use.



ASM 2012 – BOOTH #1301

Back again by popular demand are the In-Booth Educational Knowledge Forums!

Sunday, June 17 – Exhibit Hall Hours: 10:45 a.m. to 4:00 p.m.

10:55 - 11:20	Next Generation Laboratories
11:50 - 12:20	MALDI-TOF Technologies: Positive Impact on Results & Workflow Christine C. Ginocchio, Ph.D., MT (ASCP) Senior Medical Director and Chief, Division of Infectious Disease Diagnostics, Department of Pathology and Laboratory Medicine; Professor, Hofstra University North Shore-LIJ School of Medicine – North Shore-LIJ Health System Laboratories, Manhasset, NY
12:45 - 1:15	Sepsis Know From Day 1: A Microbiology Approach Yun F. (Wayne) Wang, MD, Ph.D. Director of Clinical Microbiology, Immunology & Molecular Diagnostics Grady Health Systems, Atlanta, GA
1:45 - 2:15	From Specimen to Information - Importance of Laboratory Informatics Allen Foulks Microbiology Manager/Supply Management Professional Clinical Laboratories, Inc., Fort Worth, TX

Monday, June 18 – Exhibit Hall Hours: 10:45 a.m. to 4:00 p.m.

10:55 - 11:20	Microbiology Lab of the Future Driven Through Automation Richard L. Wong, CLS, MT (ASCP) Administrative Director of Pathology/Clinical Laboratory Dameron Hospital Association Core Laboratory, Stockton, CA
11:50 - 12:20	MALDI-TOF Technologies in the Microbiology Lab Melissa B. Miller, Ph.D., D(ABMM) Associate Professor, Pathology & Laboratory Medicine; Director, Clinical Molecular Microbiology Laboratory Associate Director, Clinical Microbiology-Immunology Laboratory, UNC School of Medicine, Chapel Hill, NC
12:45 - 1:15	Blood Culture State of the Union - Gold is the New Black Paul Bourbeau, Ph.D. D(ABMM) Director, Microbiology Laboratories – Geisinger Medical Laboratories, Danville, PA
1:45 - 2:15	Case Study: How Workflow Optimization Addresses Challenges with Lab Consolidation Fay A. Parker-Brown, MBA, SM(ASCP) Lab Manager/Safety Officer Palmetto Richland Memorial Hospital, Columbia, SC

bioMérieux's Annual ASM Scientific Symposium

June 18 at 6:00 p.m. – Yoshi Theater and Supper Club

Healthcare Reform – The Only Certainty is Change

Regardless of the Supreme Court's decision on the Affordable Care Act, the outcome of the 2012 Presidential election or Medicare restructuring – healthcare reform is coming. The wheels are already in motion as hospitals are forced to evaluate their readiness to meet demands for added focus on evidence-based medicine and affordable care. The financial implications of this massive shift on hospitals and the healthcare system are astounding.

An integral part of a hospital's preparedness will be efficiency. The microbiology lab will become even more crucial as physicians look to better use of patient data to guide more effective therapies. While stewardship programs have primarily been driven by the need to reduce resistance, health systems will soon have a much greater financial incentive. The motivation will now warrant a single, less expensive and targeted drug that could effectively treat the patient rather than an expensive broad-spectrum antibiotic.

To incorporate this transformation, hospitals will need to turn to the lab for accurate data. To meet the increased demand for faster results and testing, labs must adopt new methods to improve efficiency and hasten time-to-result. Lab, physician and health system all share common goals of wanting to heal patients faster and more effectively in order to maximize reimbursement and keep costs low.

bioMérieux will host a special healthcare efficiency symposium at the 2012 General Meeting of the American Society for Microbiology and is pleased to welcome:



David Gergen is CNN's senior political analyst and has been an adviser to four presidents. He is a professor of public service and director of the Center for Public Leadership at Harvard University's Kennedy School of Government. Mr. Gergen is a close observer of healthcare reforms and their impact on American politics. In a recent piece in *Modern Healthcare*, Gergen said that the U.S. healthcare industry finds itself in a period of "extreme uncertainty and volatility," explaining that recent reforms will persist despite the outcomes of upcoming elections.

A respected leader in the microbiology community, **Geraldine S. Hall, Ph.D.** is the Medical Director of Bacteriology, Mycobacteriology & Specimen Processing and the Section Head of Clinical Microbiology at the Cleveland Clinic. She is also Professor of Pathology at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Dr. Hall earned her B.S. in Biology from Saint Francis College and her Ph.D. in Biology with an emphasis on Microbiology from St. Bonaventure University. She received her Doctorate from St. Bonaventure University and Fellowship Degree from Cleveland Clinic. Dr. Hall was the 2008 recipient of the ASM bioMérieux Sonnenwirth Award for Leadership in Clinical Microbiology.

Imran Andrabi, MD, FAAP, CMCM is the Senior Vice President and Chief Physician Executive Officer of Mercy Health Partners, and Senior Vice President, Clinical Innovation, Office of Operations and System Effectiveness, for Catholic Health Partners. He graduated from King Edward Medical College in Lahore, Pakistan, and is a Diplomate of the American Board of Family Medicine and the American Board of Managed Care Medicine. Dr. Andrabi is also a fellow of the National Institute for Program Director Development, the American Academy of Family Physicians, the Association of International Physicians of NW-Ohio, and the Academy of Medicine of Toledo & Lucas Counties.

To register visit: www.biomerieux-usa.com/asm2012

bioMérieux would also like to highlight important educational Poster Sessions being presented at asm2012:

Abstract 4809:
Clinical Value of Quantitative and Sequential Procalcitonin (PCT) in the ICU

Abstract 4424:
Rapid Identification of Bacteria and Yeasts from Positive

Blood Culture Bottles by Using Lysis-Filtration Method and MALDI-TOF Mass Spectrum Analysis with SARAMIS Database

Abstract 4568:
Identification of Clinical

Isolates by Using MALDI-TOF Mass Spectrometry

For a full list of Abstracts and Posters visit: www.biomerieux-usa.com/asm2012

CASE STUDY

Reference Laboratory with High Volumes Implements LEAN Principles to Meet Growing Demand for Faster Turnaround Times

Elaine M. Hinds MS, MT (ASCP), CLS, (NCA)
Microbiology Laboratory
Sunrise Medical Laboratory
Hicksville, NY

Challenge

The Sunrise Medical Laboratory in Hicksville, New York is a large reference laboratory that provides microbiology testing for many private physicians and nursing homes, as well as some area hospitals. Facing ever-increasing demand from its clients for faster turnaround times (TATs), Sunrise faced the challenge of meeting these demands without increasing costs and without compromising quality.

Physician clients were concerned about TATs, particularly on the weekend, and the Sunrise staff routinely faced a huge workload at the beginning of each week. With lab management unable to hire additional staff to address client demand, they needed to look at potential methods and processes for improving lab efficiency in order to optimize their workflow.

Elaine M. Hinds MS, MT (ASCP), CLS, (NCA), Microbiology Laboratory Manager, reached out to the bioMérieux Performance Solutions LEAN team to arrange an assessment and identify ways to improve TATs with the Sunrise Lab's existing staff and instrumentation.

Beginning in June of 2010, Sunrise started the assessment with bioMérieux Performance Solutions looking to:

- Improve client (physician) satisfaction
- Optimize workflow
- Improve lab efficiency
- Improve TATs across the board, particularly for urine culture testing

"We did it our way and it seemed like it worked, but we needed that third person validating some areas for improvement. The LEAN team opened up our eyes, helping us to look at things differently."

Solution

Hinds and her staff contracted with bioMérieux Performance Solutions to undergo a complete LEAN assessment. With the primary goal of reducing TATs and thus improving client satisfaction, Sunrise

quickly implemented the LEAN team's recommendations.

Key elements of the LEAN program included:

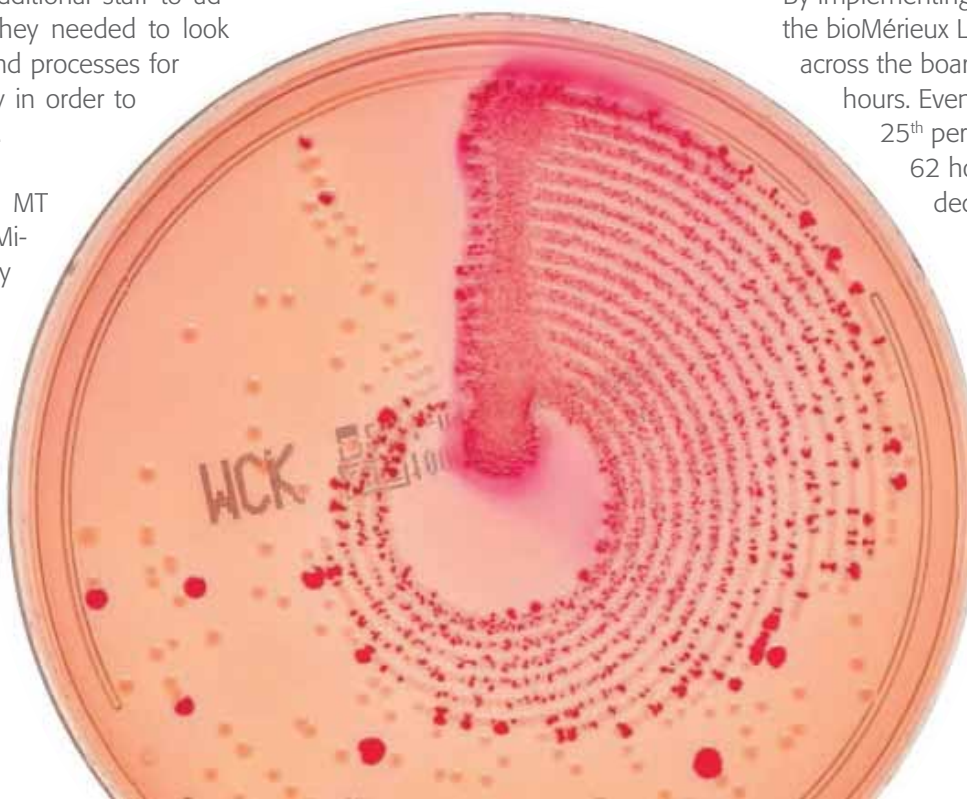
- A staffing plan that worked to maximize the time of each staff member
- A lab design plan created to eliminate unnecessary walking, reduce the need for redundant tasks and maximize use of the equipment in the lab

Impact

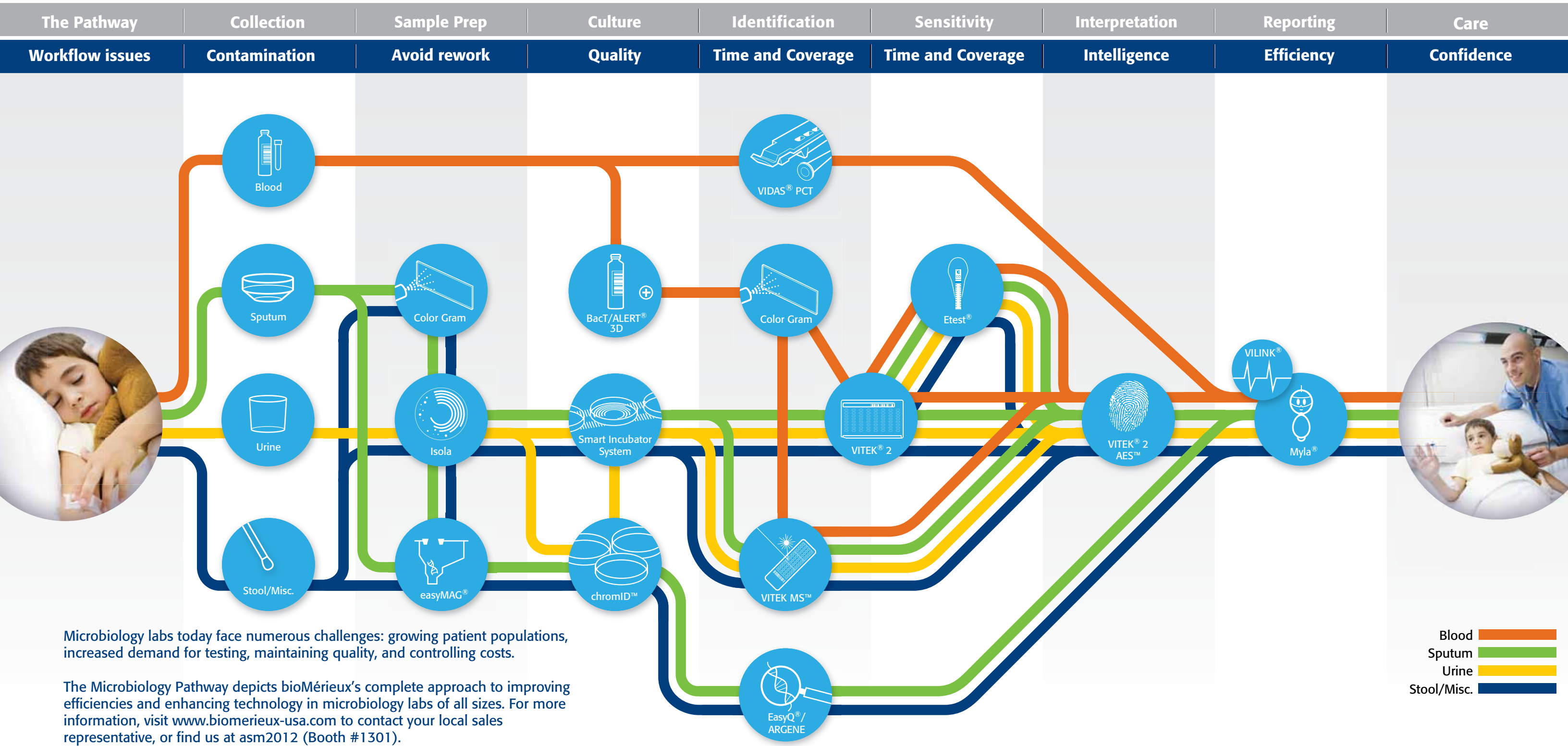
It was revealed during the assessment that the 25th percentile for urine culture TATs was above 62 hours. This means that a quarter of all urine testing was taking nearly three days to return results to waiting clinicians who were unable to begin targeted patient therapies.

By implementing the recommendations of the bioMérieux LEAN team, Sunrise saw an across the board reduction in TATs of 10 hours. Even more impressive, their 25th percentile improved from over 62 hours down to 39, a 37% decrease.

"The response from clinicians has been very positive. They love the fact that they're getting their results much faster. In fact, some have even complained that they're getting them too fast!" said Hinds.



The Microbiology Pathway: from Collection to Care



Big Investment in Automation and Efficiency Pays Off for Small Hospital

Dameron Hospital in Stockton, California may not be a large hospital when compared to some of the enormous health systems found across the U.S., but it has seen a tremendous increase over the years in the demand for fast, accurate testing from the microbiology lab. The lab's leadership quickly recognized that lab automation and better workflow optimization were necessary to meet the growing demand.

"When I was approached in 2004 to become the administrator of the microbiology lab, I insisted that we take steps to automate as many testing processes as possible in order to realize significant improvement to turnaround times," said Richard L. Wong, CLS, MT (ASCP), Administrative Director of Pathology and the Clinical Laboratory at Dameron Hospital Association Core Laboratory.

Dameron Hospital Association (DHA) is a fully accredited, 202-bed community hospital offering a full range of medical, surgical and health maintenance services for emergency and acute care. The system sees approximately 40,000 patients per year, averaging 120 patients per day. The lab is responsible for over 400,000 tests per year.

"Automation, for me, was key to achieving the necessary improvements," Wong said. "It was about freeing up staff for other tasks, letting the equipment do as much of the work as possible while staff is focused on analysis. That is where I felt we'd see the most improvement in terms of speeding up testing."

Wong chose bioMérieux Full Microbiology Lab Automation because he was looking for one umbrella solution from a vendor he trusted and knew well. With help from the bioMérieux team, Wong realized that by implanting the PREVI® Isola, the lab would be able to fully automate its plate streaking and could trust that cultures would be generated more quickly and successfully. Further, the PREVI Isola was easily integrated with the lab's Myla® middleware system and fit with the LEAN efficiency program the lab was implementing.

"I was recently in France and had an opportunity to view bioMérieux's Lab of the Future firsthand. It was clear to me that bioMérieux had a great handle on how

labs needed to evolve in order to address the challenges of test volume, resistant organisms and personalized medicine. I was able to see how instruments like the PREVI Isola could profoundly impact lab efficiency."

"We were actually one of the earliest PREVI Isola customers," Wong said. "It is able to grow colonies much more quickly for isolation than manual streaking or other streaking equipment I've seen."

After seeing the Lab of the Future, Wong was determined to discuss the need for investment in new technology with Dameron Hospital leadership.

"I think that's what most lab directors are afraid of; fighting for the money to make improvements," Wong said. "But it was important to the future of our lab. Having seen what is possible with a fully-optimized lab, I was able to successfully make the point that investing in the lab will have tremendous cost-saving benefits, as our better turnaround times will ultimately help guide more effective patient therapies."

Today, Wong's lab utilizes several bioMérieux technologies. In addition to the PREVI Isola, the lab uses PREVI® Color Gram, BacT/ALERT® 3D, miniVIDAS®, Myla and VITEK® 2 for identification and antibiotic susceptibility testing. Additionally,

Richard Wong, Administrative Director of Dameron Hospital's Pathology Clinical Laboratory in Stockton, CA, is one of the earliest PREVI® Isola customers.

"The instrument grows colonies much more quickly for isolation than manual streaking or other streaking equipment I've seen," he says.

Wong's lab recently implemented MALDI-TOF mass spectrometry as a research-use only tool for rapid identification. In addition to the improvements in automation, Wong worked closely with bioMérieux's Performance Solutions team to evaluate his lab from a LEAN perspective in order to determine areas for efficiency and workflow improvements.

"It is important to understand how specimens flow through your laboratory in order to understand where 'waste' may exist," Wong said. "Waste such as excessive motion and transportation can easily be identified by following the life of a specimen in your lab."

bioMérieux's Performance Solutions team was able to identify additional waste opportunities in our process, particularly as they applied to urine cultures. By automating this process Dameron was able to reduce the time-to-the-incubator for each culture, removing the waiting period that used to be standard.

Additionally it was found that positive urine culture turnaround time was higher when the specimen was received at night. It was clear that this occurred due to Dameron's lack of a night shift. Similarly, the fact that there was no night staff delayed results from the VITEK 2.

Laboratory design was also evaluated. In deciding where to place new instruments, the team reviewed workflow from the LEAN perspective and made the recommendation to eliminate excess transportation and mo-



tion. All equipment is now placed in close proximity of the actual work related to that particular value stream.

Outcomes

"We have made numerous changes since the May 2011 LEAN assessment and we are seeing great results," Wong said. "We've established two start times and eliminated much of the unnecessary testing that was going on. We've added E swab cultures and installed Myla middleware for better information sharing throughout the system. We're seeing significant reductions in our turnaround times due to our use of the PREVI Isola for streaking and producing better colony growth. I also give a lot of credit to the workflow improvements we've implemented with bioMérieux's help."

Despite its relatively small size, Dameron's investment in its microbiology lab through

automation and efficiency improvement make it a model for other systems across the U.S. looking to manage high volumes and produce accurate results with fast turnaround times.

Author Info:

Richard L. Wong, CLS, MT (ASCP) is the Administrative Director of Pathology/Clinical Laboratory at Dameron Hospital Association Core Laboratory located in Stockton, CA. He has been in the Administrative Directorship position since 2004. Mr. Wong obtained a BA degree in Biology from University of the Pacific in Stockton, CA in 1970. He completed his Medical Technology training at San Joaquin General Hospital in 1971. He has been employed at Dameron Hospital Association for over 40 years, working in the Clinical Laboratory in different positions.

As Administrative Director he oversees a "State of The Art" Automated Integrated Core Laboratory with 33 FTE staff in an over 3,000 square foot facility which serves a 202-bed community hospital offering a full range of medical, surgical and health maintenance service for emergency and acute care.

Greater Precision in Less Time

PREVI® Isola

In a rapidly changing environment, you are faced with providing greater precision, managing increased volumes, and dealing with the lack of specialized personnel while ensuring cost containment. Automation is key to enable you to streamline your workflow and provide improved patient care.

Like you, we are convinced microbiology lab automation needs to be taken to a new level. To answer your needs, we have already started by bringing automation to the pre-analytical process with PREVI® Isola.

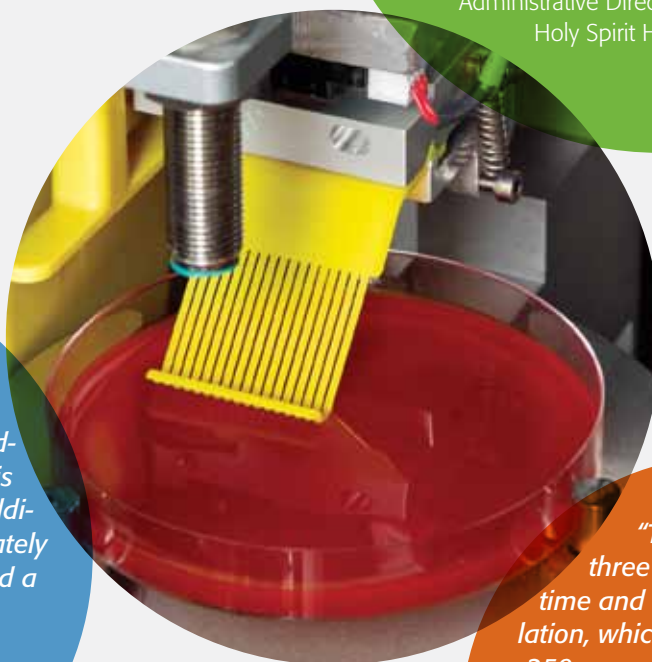
Take a look at what some of our customers have had to say.

"Through use of the PREVI® Isola, the team has been able to achieve clearer plate streaks, including more colonies; preliminarily, this has helped minimize the need for additional sub-culturing, saving approximately eight hours per week in staff time and a full day in getting results into the hands of physicians."

Tim Drake, Microbiology Lab Manager,
Grady Health Systems

"The first step in this process was the acquisition of bioMérieux's PREVI® Isola automated plate streaking system for microbiology specimen processing. This pre-analytical microbiology automation station has improved the lab's efficiency at Holy Spirit, as well as workflow and standardization, while freeing up valuable staff for analysis and plate reading. It has improved productivity with greater consistency, fewer repeat cultures and more isolated colonies to work from."

Jeff Seiple,
Administrative Director of the Laboratory,
Holy Spirit Health System



"The lab saved three hours of an FTE's time and had better colony isolation, which resulted in more than 250 organisms effectively worked up with a turnaround time of 24 hours instead of the typical 72 hours for manual streaking."

Allen Foulks, MLT (ASCP) Microbiology
Laboratory Manager, ProLab

PREVI™
Isola



PRODUCT UPDATE

OBSERVA® Data Management 4.02 Software Update

Beginning in May, bioMérieux began shipping out the latest version of OBSERVA®. Included in this update are a number of enhancements to improve user interaction with the system.

Compatibility

The OBSERVA System must be at version 4.01 before installing the update and is compatible with the following systems:

- VITEK® 2 PC versions 5.01 or higher
- BacT/ALERT® 3D version B.30 and B.40
- Myla® version 2.4

The following is a brief summary of the enhancements included in the new version of OBSERVA 4.02:

Computer Hardware Support

This new version of the OBSERVA Application is compatible with the following Hewlett-Packard computer hardware systems: dc7600, dc7700, dc7800, rp5700, d530 6 port.

NOTE: This will be the final OBSERVA Software update that will be offered for the Hewlett-Packard d530 6 port computer.

Report Printing Performance Enhancements

This version corrects anomalies associated with periodic application shutdowns while reports are printing and the anomaly associated with the periodic loss of report

formatting when multiple reports are printed in succession.

General Performance Enhancements

A number of modifications have been made to further enhance the performance and stability of the OBSERVA Application. Main areas of improvements were focused on enhancing LIS communication and stabilizing data storage management. We thank you for your continued support of the OBSERVA software and look forward to providing you with additional enhancements in the future.





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ADDRESS SERVICE REQUESTED

2012 EVENTS CALENDAR

bioMérieux
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Date		Event and Location
JUNE	2-4	American Society of Clinical Oncology (ASCO) National Show , Chicago, IL
	4-6	Association for Professionals in Infection Control (APIC) , San Antonio, TX
	5-8	Premier Breakthrough Conference , Nashville, TN
	16-19	American Society of Microbiology (ASM) General Meeting, Booth #1301 , San Francisco, CA
JULY	17-19	American Association for Clinical Chemistry (AACC) , Los Angeles, CA
	22-25	International Association of Food Protection (IAFP) Annual Meeting, Booth #619 , Providence, RI
	30-Aug. 1	Health Trust Purchasing Group Vendor Fair and Conference , Las Vegas, NV

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