bioMérieux CONNECTION

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Message From bioMérieux

After 30 years of participation at the annual ASM General Meeting, delivering ASM-firsts such as our Satellite Symposium, Customer Appreciation event and in-booth Knowledge Forums, we regret to inform you bioMérieux has decided not to exhibit at the 2009 ASM General Meeting.

bioMérieux did not take this decision lightly. We made the choice for two primary reasons:

- The ASM General Meeting content, related marketing and tradeshow activities must be better aligned with the needs of the clinical microbiology industry.
- Decrease and shift in meeting attendance: only 14% of the total 2008 scientific attendees had a specialty in clinical microbiology, and over 62% were in a research role (ASM Attendance demographics 2008).

ASM was unable to make the modifications we suggested for the 2009 General Meeting. As a result, bioMérieux made the decision to redeploy its resources to building programs that directly reach more lab professionals.

We will launch our WorkSmart initiative, which will allow industry professionals to share best practices on relevant topics for an educational grant. To learn more, please visit **www.biomerieux-usa.com/worksmart**

We recently launched an HAI Educational Series that focuses on issues concerning Healthcare Associated Infections and the lab's role. To learn more, please visit **www.biomerieux-usa.com/hai**

[+] *Continued on page 2*

from diagnosis,
the seeds of better health

BIOMÉRIEUX

[-] *Continued from page 1*

To help address limited travel budgets, bioMérieux's newly expanded Odyssey is traveling around the U.S., visiting regional tradeshows, local community colleges and will be available to teaching or University Hospitals that have need for education and training on the latest microbiology solutions. To learn more, please visit **www.biomerieux-usa.com/odyssey**

We will also continue to host online webinars, regional show seminars, as well as publish updated educational documents on our online Education Center. To learn more, please visit **www.biomerieux-usa.com/education**

bioMérieux is pleased to announce special product discounts in the month of May. To learn more, please contact your local bioMérieux representative.

We will continue to work closely with ASM to improve overall attendance and the clinical microbiology aspects of the General Meeting program. We hope to resume our participation in future years. This was a tough, but necessary, decision. While we will miss you at ASM, we look forward to seeing you at the other 2009 national and regional conferences that we continue to support, including AACC and ICAAC. Thank you for your continued business and support. To provide us with comments or feedback, please visit **www.biomerieux-usa.com/asm2009**

WORK SMART

Introducing The bioMérieux

WorkSmart Series

To kick off National Medical Laboratory Professionals Week, bioMérieux is providing a forum for the exchange of scientific best practices.

Submit a 1,200-word article on any number of important topics to earn a $250 educational grant from bioMérieux. Short on time? Submit a 700-word article to receive a $150 honorarium instead.*

- ***How are you improving your laboratory workflow?***
- ***What is your role in reducing Healthcare Associated Infections (HAIs)?***
- ***How are you utilizing MIC reports?***
- ***What green laboratory practices have you implemented?***
- ***How are you battling the fight against potential foodborne outbreaks?***

Topics

- Healthcare Associated Infections (HAIs)
- Superbugs
- Antibiotic Susceptibility Testing
- MIC Reporting
- Blood Culture Collection
- Sepsis
- Emergency Panel Testing
- LEAN/Laboratory Workflow
- Laboratory Automation
- Denial of Payment
- Changes in Medicare Guidelines
- Benefits of In-House Testing
- Food and Environmental Pathogen Detection
- Food and Environmental Quality Indicator Enumeration
- Media Test Fill
- Air and Water Quality Testing
- Nucleic Acid Extraction/Amplification
- Strain Typing
- Blood Banking
- Laboratory Information Systems (LIS)
- Green Laboratory Practices
- CPT Billing
- Manual Testing to Supplement Automated Testing
- Comparison of Chromogenic Media

Have a great topic not on this list? Submit it to the editor at www.biomerieux-usa.com/worksmart.

Present Your Ideas

Select WorkSmart submissions may be featured in the *Connection* newsletter or even as a webinar or Odyssey™ tour presentation.

Author Guidelines

Copyright:

- Articles must be original and not published or under consideration by any other publication.
- Authors must sign an agreement transferring ownership of copyright to bioMérieux.
- Cite sources for published tables, images, charts, and/or graphs, and indicate if they were altered in any way.
- Submit written permission from publications to reproduce published tables, images, charts, and/or graphs.

Format for Submissions:

- Craft submissions in Microsoft Word using 11-point, full-justified Arial font.
- 1,200-word or 700-word submissions should include all tables, images, charts, and graphs.
- Only use underlining to indicate hyperlinks.
- Do not embed tables, images, charts, or graphs. Attach them as separate files.
- Submit article and accompanying graphics as .doc or .zip files using the online submission form at www.biomerieux-usa.com/worksmart.

Tables, Images, Charts, Graphs:

- Provide a key for any abbreviations used within tables.
- Submit all data points used to create computer-generated charts or graphs so bioMérieux can accurately recreate them for publication.
- Submit images as 300 dpi or higher .jpg files.
- Clearly label heads and subheads within tables.

References:

- Alphabetize and sequentially number the reference list.
- Superscript references by number within the text.
- Title and number all tables, images, charts, and graphs in order of citation within the text.

Guidelines for Layout:

- Clearly state the article's purpose in the introductory paragraph.
- Provide an overview of the necessary basic science.
- Give a detailed discussion of the laboratory/physician/pharmacist/administrator/purchaser's role.
- Use headings to indicate topic transitions.
- Define all abbreviations and acronyms.
- Describe any referenced procedures or test methods in enough detail so readers can duplicate them.
- Use active voice.
- Reference generic drug names unless a trade name is relevant to discussion.

For full author guidelines and to learn more about the WorkSmart series, please visit www.biomerieux-usa.com/worksmart.

** The submission must first be qualified and approved by the bioMérieux editorial board. bioMérieux will send notification whether or not the submission has been accepted. The submission must meet all required guidelines. After the submission has been approved, a grant check will be sent. bioMérieux reserves the right to discontinue the WorkSmart series at any time.*

Introducing The bioMérieux HAI Series

bioMérieux HAI Educational Series: Combining Knowledge And Education To Address The Challenges Of Healthcare-Associated Infections

bioMérieux is sponsoring a series of educational workshops aimed to educate the industry on prevention, surveillance and intervention tools that can help in the fight against HAIs. Our main objective for these regional workshops is to sponsor local experts and enable them to communicate best practices implemented at their respective facilities so attendees can consider applying some presented elements at their own institutions.

Please visit www.biomerieux-usa.com/hai to learn more about the series.

Denver, CO • May 14
Ft. Lauderdale, FL • June 8
Ft. Worth, TX • September 2
Jackson, WY • September 15
Portland, OR • October 20
Greenville, SC • November 4

Save the Date: Upcoming Webinars

May 28
Two sessions: 1:00 p.m. EST or 4:00 p.m. EST
Presented by: Dr. William Jarvis

This webinar will highlight the types of internal and external pressures that are currently being felt by infection preventionists within multiple organizations and hospital administrations. This session will explain what it takes to be compliant. Attendees will also learn about automated surveillance tools that can assist them in their efforts to more easily identify surveillance problems/outbreaks and report on these situations to hospital, state and federal level administrations, as required.

June 2
LEAN workflow

Please visit www.biomerieux-usa.com/education for more details.

Odyssey™ Cities On Tour

Denver, CO • May 13-15 Clinical Lab Collaborative Conference
Portland, ME • June 8-10 NACMID Meeting
Grapevine, TX • July 13-14 IAFP
Ft. Worth, TX • Sept. 2-5 SWACM
Jackson Hole, WY • Sept. 16-19 IMSS
Seattle, WA • Oct. 21-24 NWMLS
Greenville, SC • Nov. 4-6 SEACM Fall Annual Meeting

Using Procalcitonin To Diagnose Sepsis And The Potential For Improved Antibiotic Stewardship

By James D. Faix, MD

Full article published in the November 2008 issue of Medical Laboratory Observer

Increased rates of infection with antimicrobial-resistant bacteria, especially methicillin-resistant Staphylococcus aureus (MRSA), have focused attention on early detection of such "superbugs" and the adoption of measures to control their spread. Similarly, the increased incidence of sepsis, an unusual systemic response to infection, has stimulated great interest in identifying infected patients at risk and intervening early. Like MRSA, sepsis is no longer limited to hospitalized patients but has begun to appear as a potential complication of community-acquired infections, especially pneumonia. Patients with suspected severe sepsis now account for over 500,000 emergency department (ED) visits annually.[1]

At Stanford Hospital, we have implemented international recommendations to control sepsis and have seen a reduction in our mortality rate for hospital-acquired severe sepsis and septic shock from 56 percent in 2005 to 33 percent as of 2008. We hope to reduce this further, and we are also focusing on new approaches to diagnosing sepsis, especially at an early stage, so that these advances in treatment can be even more effective.

Most laboratorians are familiar with C-reactive protein (CRP) as a marker of inflammation, but they may not recognize the role that procalcitonin (PCT) can play in the laboratory diagnosis of infection. In the early 1990s, investigators discovered elevated PCT in patients with invasive infection.[4] Subsequent studies have shown that many tissues throughout the body are the source of this PCT during infection[5] and that PCT is probably part of the abnormal systemic response that leads to severe sepsis. PCT was soon used to differentiate bacterial infection from non-infectious systemic inflammation[6] and to identify patients with severe sepsis.[7] Over the past decade numerous studies – mostly, in Europe – have investigated the diagnostic accuracy of PCT for sepsis compared with other inflammatory markers, especially CRP.

PCT's clinical utility has been hampered by the fact that, until recently, the test could not be performed as rapidly as other tests needed in the support of critically ill patients. Commercially available assays for PCT are now capable of producing results within 30 minutes.

In Europe, there has been great interest in using PCT levels to help decide whether or not to initiate antibiotic therapy and to guide its duration. This "antibiotic stewardship" can prevent antibiotic overuse, reducing cost as well as decreasing the risk of developing bacterial resistance. It is important to note that commercially available assays are not yet approved for this purpose in the United States and that more randomized, controlled trials need to be performed.

In the future, PCT may guide triage in the ED for infectious disease in a manner similar to the use of troponin for patients suspected of having acute coronary syndrome. PCT levels (or the change in PCT levels) may allow physicians to admit patients at high risk of developing severe sepsis, and discharge those as outpatients whose infections may be safely treated.

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Sepsis is a complicated syndrome with many physiological derangements. PCT is only one of the emerging laboratory markers of sepsis proposed as adjuncts to clinical evaluation. The list includes cytokines, neutrophil-activation markers, complement and coagulation abnormalities, and microbial-derived products. The perfect marker (or battery of markers) would accurately identify patients whose innate immune systems are about to overact and produce the toxic syndrome called sepsis. Until we understand the pathogenesis of this abnormal response, the search for better treatment (and better ways to diagnosis it) will continue. ▮

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References
1. Wang HE, Shapiro NI, Angus DC, Yealy DM. National estimates of severe sepsis in United States emergency departments. Crit Care Med. 2007;35:1928-1936.
4. Assicot M, et al. High serum procalcitonin concentrations in patients with sepsis and infection. Lancet. 1993;341:515-518.
5. Muller B, et al. Ubiquitous expression of the calcitonin-I gene in multiple tissues in response to sepsis. J Clin Endocrinol Metab. 2001;86:396-404.
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7. Karzai W, Oberhoffer M, Meier-Hellmann A, Reinhart K. Procalcitonin: A new indicator of the systemic response to severe infections. Infection. 1997;25:329-334.

Mercy Integrated Labs Implements PNA FISH® Tests To Help Clinicians Provide Best Care For Patients With Bloodstream Infections

St. Charles Mercy Hospital, St. Anne Mercy Hospital and St. Vincent Mercy Medical Center become first hospitals in the Toledo area to use a new, cutting edge diagnostic technology to fight serious infections and improve patient care and outcomes.

Mercy Integrated Labs in Toledo, Ohio has implemented PNA FISH® tests to identify bloodstream pathogens one to three days earlier than conventional methods to help physicians, pharmacists and nurses at hospitals served by the lab to improve care and outcomes for patients with bloodstream infections.[1]

Every year, 350,000 patients contract bloodstream infections in the United States, causing over 90,000 deaths and significant costs to the healthcare system. Rapid and accurate identification of the causative pathogen is crucial to ensuring appropriate antibiotic therapy and improving patient outcomes. Conventional diagnostic methods can take 48 hours or longer, forcing physicians to treat patients empirically with broad-spectrum antibiotics that may prove to be ineffective and can lead to long-term resistance.

Clinical trials have shown that implementing PNA FISH® and delivering fast results to clinicians directed earlier, effective antibiotic therapy, reduced mortality rates and improved hospital operational efficiency.[1,2,3]

PNA FISH® tests employ unique technology that rapidly detects bacteria's genetic material to provide identification results one to three days sooner than conventional methods for serious pathogens such as *Staphylococcus aureus, Enterococcus faecalis, Enterococcus faecium, Escherichia coli, Pseudomonas aeruginosa, Candida albicans,* and *Candida glabrata*.[1]

Clinical trials conducted at hospitals in the United States have shown that implementing PNA FISH® and delivering fast results to clinicians directed earlier, effective antibiotic therapy, reduced mortality rates and improved hospital operational efficiency by reducing hospital length of stay, bed utilization, and pharmacy and lab costs related to unnecessary antibiotic use.[1,2,3]

St. Charles Mercy Hospital, St. Anne Mercy Hospital and St. Vincent Mercy Medical Center are the first hospitals in the Toledo area to implement the rapid PNA FISH® tests and enable their clinicians to use the fast, therapy-directing diagnostic results to improve care and outcomes for their patients.

"We are very excited to provide the latest diagnostic tool to help our clinicians diagnose these serious infections earlier in our critically ill patients," said Dr. Luis Juaregui, Chief of Infectious Diseases at St. Vincent Mercy Medical Center, who along with Dr. Arletta Aouad, Infectious Diseases Physician at St. Vincent, and Dr. Mary McNamera, Infectious Diseases Physician at St. Charles Mercy Hospital, are championing the clinical implementation of using rapid microbiology results to guide therapy.

"The fast results from the laboratory will enable our clinicians to know which pathogens they are dealing with much earlier, will help them prescribe the most appropriate antibiotic, and allow us to deliver the best care for our patients," Dr. Juaregui added.

Mercy Integrated Labs is a part of the Mercy Health Partners' (MHP), a not for profit health system in

Northwest Ohio dedicated to improving the health of people in its communities with emphasis on its 154-year mission of caring for all in need. Mercy Integrated Laboratories is dedicated to providing comprehensive, high-quality laboratory services to physicians, patients and the communities it serves and believes that each patient should be treated as an individual whose laboratory testing forms an integral part of his or her total medical care.

By providing state-of-the art testing, integrated medical records, consultation, and outstanding customer service, Mercy Integrated Laboratories contribute to the quality, access, continuity of care, and cost-effectiveness of patient care. The laboratory is licensed and accredited by CAP, AABB (American Association of Blood Banks) and CLIA, under the direction of the Centers for Medicare and Medicaid Services.

"The fast results from the laboratory will enable our clinicians to know which pathogens they are dealing with much earlier, will help them prescribe the most appropriate antibiotic, and allow us to deliver the best care for our patients."

In addition to Mercy Integrated Labs, Mercy is composed of St. Vincent Mercy Medical Center, St. Charles Mercy Hospital, St. Anne Mercy Hospital, St. Vincent Mercy Children's Hospital, Mercy Hospital of Tiffin, Mercy Hospital of Willard, Mercy Hospital of Defiance, St. Vincent & University of Toledo Life Flight and Mercy College of Northwest Ohio. Please visit www.mercyweb.org for additional information regarding Mercy Health Partners.

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Forrest et al. Antimicrob Agents Chemother. 2008 Oct;52(10):3558-63.
Shoham et al. Ther Clin Risk Manag. 2008 Jun;4(3):637-40.
Forrest et al. J Antimicrob Chemother. 2006 Jul;58(1):154-8.

Join bioMérieux At These National Shows In 2009

American Thoracic Society (ATS)
May 15-20
San Diego, CA – Booth # 2524

Association for Professionals in Infection Control (APIC)
June 6-11
Fort Lauderdale, FL – Booth # 1207/1209

American Association for Clinical Chemistry (AACC)
July 19-23
Chicago, IL Booth # 458

Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)
September 11-14
San Francisco, CA – Booth # 209

American College of Emergency Physicians (ACEP)
October 5-8 Boston, MA

Association for Molecular Pathology (AMP)
November 19-22
Kissimmee, FL

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Product Spotlight: chromID™

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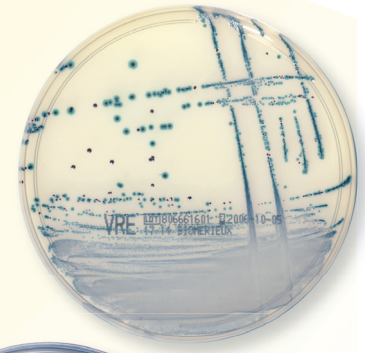
chromID Candida	Ref 43631	20 plates
chromID CPS®	Ref 43541	20 plates
chromID VRE*	Ref 43002	20 plates
chromID MRSA*	Ref 43451	20 plates

* *Pending FDA clearance. Not available for sale or distribution in the U.S. For more details, see Technical Sheet.*



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