



PROGRAM SYNOPSIS

Jackson, Wyoming

Oct. 10 – Oct. 12, 2019

THURSDAY, OCTOBER 10, 2019

8:15-9:15 am

KY. Keynote/GSA: The Golden Age of The Clinical Lab as We Transition from Volume to Value

Speaker: Khosrow Shotorbani, MBA, MT(ASCP)

Level of Instruction: Intermediate

Sponsor:

Contact Hours: 1.0

This session will be a discussion of the clinical laboratory as we transition from volume to value; from sick-care to well-care. This session will introduce the concept of Lab 2.0 and how your organization can participate in this initiative.

At the end of the session, the participant will be able to:

- Explain why the current business model of the clinical laboratory is not sustainable
- Describe the measurable role of the clinical lab in value-based healthcare
- Having a seat at the table with the C suite to align the clinical lab relevancies with the enterprise key objectives, discuss the question: “are we solving the problems the C Suite care about?”

Thursday, October 10, 2019

General Session 9:30-11:00 am

General Session B. Gastrointestinal Microbiome: A Review

Speaker: Nancy C. Kois, MD, FCAP

Level of Instruction: Intermediate

Sponsor: Contemporary Pathology Services

Contact Hours: 1.0

This session will be a review of the exponential increase in recent research and publications on the effect of gastrointestinal microbiome has on human development, health, and disease.

At the end of the session, the participant will be able to:

- Discuss the gastrointestinal microbiome
- Review recent research regarding the relationships between gastrointestinal microbiome human development, health, and disease
- Review recent trends in microbiome management

Thursday, October 10, 2019

General Session 1:00-2:00 pm

General Session C. Improving Patient Safety Through Enhanced Interprofessional Communication

Speaker: Susan Morris, MPH, MLS (ASCP) CM

Level of Instruction: Basic

Sponsor:

Contact Hours: 1.0

Ineffective or insufficient communication among health care professionals is a significant contributing factor to medical errors and patient harm. TeamSTEPPS is a set of teachable skills that can help laboratory professionals overcome existing communication barriers with other health care professionals. Enhanced communication creates opportunities to become more visible and collaborative members of the team of health care specialists providing care that improves patient outcomes without causing harm.

At the end of the session, the participant will be able to:

- Describe how ineffective communication can result in patient harm
- Identify specific communication tools that can enhance interprofessional communication
- Demonstrate additional benefits from enhanced interprofessional communication

Breakout Sessions 2:15-3:15 pm

1. The Role of Lactate and Procalcitonin as Biomarkers of Sepsis

Speaker: Jim Aguanno, PhD

Level of Instruction: Intermediate

Sponsor: Siemens

Contact Hour: 1.0

The value of measuring lactate levels is expanding. Though generally considered a nonspecific biomarker, knowing lactate levels early in a patient's presentation can provide valuable information to help guide assessment and treatment. It can be particularly useful in ICU and ED settings where the presentation of symptoms may be inconclusive while diseases progress rapidly with severe pathology. Lactate testing can open a critical window for early intervention when treatment is most likely to be successful.

This seminar provides a framework for understanding lactate and the role it can play as a prognostic indicator of morbidity and mortality. The recently amended changes to the definition of sepsis and the role of lactate will also be discussed. In addition, the role of procalcitonin as an early marker of sepsis and its role in antibiotic stewardship will also be discussed.

At the end of the session, the participant will be able to:

- Review the role of lactate as an independent indicator for morbidity and mortality.
- Identify disease states where lactate testing can add significant clinical value
- Explain the new definition of sepsis and the role of lactate in that definition

2. Troponin: The New Generation

Speaker: Theresa Joseph, RN, BSN

Level of Instruction: Intermediate

Sponsor: Roche

Contact Hours: 1.5

New generation Troponins are significantly impacting the diagnosis and clinical considerations in patients presenting with Acute Coronary Syndrome. This session will cover the differences between "conventional" and "new generation" Troponins and will include discussion of cardiac pathology and Troponin elevations in disease conditions outside of Acute Coronary Syndrome.

At the end of the session, the participant will be able to:

- List 3 differences between "conventional" and "high sensitivity" Troponins.
- List 3 clinical conditions that can cause elevations in Troponin.
- Explain the rationale behind serial Troponin testing in Acute Coronary Syndrome

3. Blood Bank Methodologies

Speaker: Emad Balkash MS, MT (ASCP) SBB

Level: Intermediate

Sponsor: Bio-Rad

Contact Hours: 1.0

The speaker in this session will discuss current immunohematology methods to include tube, Gel, Solid Phase, and molecular method. Similarities, differences, advantages, and disadvantages will be the core of discussion.

At the end of the session, the participant will be able to:

- Explain the principle of the Solid Phase and Capture R, and GEL technologies
- Identify the advantages, similarities and disadvantages of current methodologies
- Discuss how reactions are obtained and grade them for all methods compared to the classic tube methodology

Thursday, October 10, 2019

Breakout Sessions 3:30-4:30 pm

4. Review of WBC and RBC Morphology

Speaker: Nancy Kois, MD, FCAP

Level: Intermediate

Sponsor: Contemporary Pathology Services

Contact Hours: 1.0

Review WBC and RBC morphology, scoring, and clinical relevance. Review criteria for blast identification. Review communication of abnormal results during irregular shifts.

At the end of the session, the participant will be able to:

- List criteria for identification of immature and mature WBC.
- Identify various RBC morphologies, criteria for scoring, and clinical relevance
- List criteria for identification of circulating blasts

5: Improving Antibiotic Stewardship and Sepsis Management with Rapid Culture Independent Molecular Diagnostics

Speaker: Sandy Estrada

Level of Instruction: Intermediate

Sponsor: T2 Biosystems

Contact Hour: 1.0

Join us for an interactive session to explore how implementing culture independent diagnostics can support your stewardship goals by allowing for early identification of clinically important ESKAPE pathogens to improve antimicrobial utilization and reduce the cost of sepsis management.

At the end of the session, the participant will be able to:

- Evaluate clinical data describing culture independent diagnostics and implications for clinical practice.
- Review successful implementation strategies for culture independent diagnostics
- Discuss patient case studies where culture independent diagnostics have contributed to antimicrobial stewardship success

6: Calibration Verification – Guidelines and Regulations

Speaker: Mario Gastelum, BS Microbiology, MBA

Level of Instruction: Intermediate

Sponsor: Audit MicroControls

Contact Hours: 1.0

We will begin the presentation by familiarizing everyone with common terms, definitions, and CLIA regulations as it pertains to Calibration Verification. We will then review common troubleshooting techniques and provide a foundation for successfully meeting CLIA's Calibration Verification requirements for moderate and high complexity tests.

At the end of the session, the participant will be able to:

- Differentiate between Calibration, Calibration Verification, and Linearity
- Describe steps in performing successful Calibration Verification
- Discuss troubleshooting steps in the event of a failed Calibration Verification

FRIDAY, OCTOBER 11, 2019

General Session 8:00-9:00 am

General Session D: Are You Out of Focus?

Speaker: Jewell Zweegman, LMT, MR, CWLS

Level of Instruction: Basic

Sponsor: Billings Clinic

Contact Hours: 1.0

Have you used a telescope or binoculars and thought, "Man where is this comet or star that is making all the news?" only to find out that you were out of focus? Life is that way too. You think that this is the right way to live your life and find out in your 30's, 40's, or 50's that you have been living out of focus. Join Jewell in her early in the morning chit chat on being out of focus and how to gain that focus you want, need, desire, and all that jazz.

At the end of the session, the participant will be able to:

- Differentiate between life goals and career goals
- Describe how to continue to grow in your career and what goals might be ahead of you, no matter what age

- Explain the concept of self-examination and discuss the right questions to ask at your job for advancement

General Session 9:30-10:30 am

General Session E: DCLS: Providing Quality & Value Improvement in Clinical Laboratory Services Delivery

Speaker: Nadine Fydryszewski, PhD. MLS(ASCP)^{CM}

Level of Instruction: Advanced

Sponsor:

Contact Hours: 1.0

As interprofessional healthcare team members, the DCLS contributes to patient care by providing consultation to assure quality value improvement in utilization of laboratory services. Consultation occurs in a variety of setting as describes in the Diagnostics Consultation Model©. Case examples will demonstrate the value of the DCLS consult to quality patient care, safety and laboratory utilization.

At the end of the session, the participant will be able to:

- Provide evidence of the need to improve the delivery of clinical laboratory diagnostic services
- Describe the Diagnostics Consultation Model© (DCM©).
- Using case studies evaluate the contribution of DCLS consultations in various settings related to patient care, safety, laboratory utilization and cost savings.

General Session 12:00-1:00 pm

General Session F: Microscopy Tools Used in the Study of Infectious Disease Agents: The Resolution Revolution

Speaker: Elizabeth Fischer, M.A.

Level of Instruction: Basic

Sponsor: Rocky Mountain Laboratories

Contact Hours: 1.0

Recent advancements in preparative and imaging technologies in combination with functional assays provide unprecedented insights in the study of host pathogen interactions. This session will explore historical and contemporary microscopy contributions in the study of known, newly emerging and re-emerging infectious disease pathogens that continue to threaten human populations.

At the end of the session, the participant will be able to:

- Describe the use of high-resolution technologies as applied to infectious disease research.
- Discuss how structural studies provide insight in to vaccine design
- Describe the disease transmission for a variety of infectious agents

Friday, October 11, 2019
Breakout Sessions 1:15-2:45 pm

7. Climbing the Ladder of Success – Opportunities to Meet Your Career Goals

Speakers: Nadine Fydryszewski, PhD, MLS(ASCP)^{CM}, Dino Madsen, MS, MLS(ASCP)^{CM}, Jed Doxtater, MS, MLS(ASCP)^{CM}

Level of Instruction: Basic

Sponsor: Casper College, University of Wyoming

Contact Hours: 1.5

This presentation will discuss regional and national education and career laddering opportunities for Phlebotomy, MLT, MLS professionals, and graduate education opportunities in master and doctoral program.

At the end of the session, the participant will be able to:

- Describe the hybrid curriculum of the Casper College MLT and University of Wyoming MLS programs.
- Explain the points of entry and career laddering possibilities of the Casper College MLT and UW MLS programs.
- Cite examples of career opportunities for lab science students in the region.
- Discuss the challenges of delivering lab science in the region.
- Review distance education and characteristics of a successful distance learner and educator.
- Describe the online education opportunities for advanced MLS education Master and doctoral degree at Rutgers University, School of Health Professions.

8. The Cost of Quality in the Laboratory: CLSI QMS20-R Overview and Preanalytical Examples

Speaker: Leonard Dunikoski, PhD, DABCC

Level of Instruction: Intermediate

Sponsor: Becton Dickinson

Contact Hours: 1.5

This session will present an overview of the CLSI report QMS20, “The Cost of Quality in the Laboratory” and give several examples. When Lab directors need to justify an increased cost for a product they should prepare with peer-reviewed articles, best practice standards and support from non-laboratory allies (Infection Prevention, Legal Risk Management, Nursing, Medical Staff, etc.).

At the end of the session, the participant will be able to:

- Verbalize the major focus of CLSI report QMS20, “The Cost of Quality in the Laboratory
- Explain cost savings from the use of preserved urine specimens for urinalysis and urine culture

- Explain how a major university hospital justified the cost of an upgraded safety wingset device

9. The Connection Between Virus Infection, Inflammation and Neurodegeneration

Speaker: Sonja Best, PhD

Level of Instruction: Intermediate

Sponsor: Rocky Mountain Laboratories

Contact Hours: 1.5

This session will describe some of our recent research on flaviviruses (e.g. Zika virus, West Nile virus) and how they cause neurological disease. Our work explores the connection between flavivirus infection, inflammatory responses, and how this might provide insight into disease processes in neurological disorders, such as Parkinson's disease.

At the end of the session, the participant will be able to:

- Describe how RNA viruses are initially sensed by the immune response
- Discuss the importance of mitochondria in cellular responses to virus infection
- Explain how studies of viruses inform our understanding of different diseases

Friday, October 11, 2019

Breakout Sessions 3:00-4:30 pm

10. A New Era in Treating Hematologic Disease: CRISPR-Cas9 Genome Editing

Speaker: Kristin Landis-Piwowar, PhD, MLS(ASCP)^{CM}

Level of Instruction: Intermediate

Sponsor:

Contact Hour: 1.5

Persistent expression of fetal hemoglobin (HbF) beyond the neonatal period is a naturally-occurring condition that improves the pathology of Sickle Cell Disease and β -thalassemia; it is associated with increased expression of γ -globin. CRISPR/Cas9-based therapy has the potential to upregulate γ -globin and HbF as a therapeutic strategy for beta-globin disorders.

At the end of the session, the participant will be able to:

- Describe the function of CRISPR in clinical applications
- Detail the specific applications of CRISPR in hematology
- Discuss potential challenges in using CRISPR technology

11. Hemophilia: Existing and New Therapies Review, Recommendations for Therapies Monitoring

Speaker: Katherine Whelchel

Level: Intermediate

Sponsor: Diagnostica Stago

Contact Hours: 1.0

This presentation will provide last updates on hemophilia treatment options: currently available and novel. In addition to, hemophilia testing will be discussed, focusing on benefits and limitation of factor assays available on the market and what tests should be used for monitoring traditional and new therapy.

At the end of the session, the participant will be able to:

- Describe available options for hemophilia therapy
- Review novel approaches to hemophilia therapy
- Identify best options for monitoring new and traditional therapy

12. What I Wish I Had Known – Skills Learned in Leadership and Management

Speaker: Lynn Todd, MLS(ASCP)

Level of Instruction: Basic

Sponsor: Campbell County Health

Contact Hour: 1.5

This session will highlight important lessons in laboratory leadership from the perspective of most important for employees, most important for leader wellbeing, as well as some digital skills that can help in managing those responsibilities.

At the end of the session, the participant will be able to:

- Relate the sessions' 3 most important points towards being the kind of leader others will want to follow.
- Relate the sessions' 3 most important points towards maintaining your wellbeing as a leader.
- List three tools described in the session that are helpful in managing your responsibilities as a leader.

SATURDAY, OCTOBER 12, 2019

7:30-8:30 am Scientific Assembly Round Table Discussions

Contact Hours: 1.0

These informal round table presentations and discussions will center on issues that are recently impacting laboratory practice in the represented area of knowledge. The facilitator will present at least one "Hot Topic" for discussion and lead the roundtable participants in a discussion about issues pertinent to their area of expertise. The group will brainstorm about possible solutions to problems and "best practices" will be shared:

Choose one to attend

- 1. Management: Joni Gilstrap, Facilitator**
- 2. POCT: Stephanie Mihane, Facilitator**
- 3. Microbiology: Susie Zanto, Facilitator**
- 4. Hematology: Kristin Landis-Pivovar, Facilitator**
- 5. Immunohematology: Justin Rhees, Facilitator**

At the end of the session, the participant will be able to:

- Summarize the findings represented in one roundtable presentation.
- Discuss 2 ideas discussed in the roundtable presentations that will help the participant perform his/her job more effectively.

Saturday, October 12, 2019

Breakout Sessions 8:45-10:15 am

13. The Journey from Point-of-Care to In-home Testing to Wearables

Speakers: Steve Young, PhD

Level of Instruction: Intermediate

Sponsor: TriCore Laboratories

Contact Hours: 1.5

I will review the expanding role of point-of-care (POC) testing and alternative testing venues. I will present the movement that performing CLIA waived testing will move to in-home testing performed by the patient/caregiver. I will present the role of wearables that can provide continuous testing and feedback.

At the end of the session, the participant will be able to:

- Discuss the value of POC to the patient, provider and healthcare system
- Explain the reasoning behind providing POC for in-home testing
- Discuss the current use of wearables and continuous monitoring and describe the further potential for these in providing health care

14. Next Generation Sequencing and Liquid Biopsies

Speaker: Dr Christopher Nero

Level of Instruction: Intermediate

Sponsor: Yellowstone Pathology Institute

Contact Hours: 1.5

Next generation sequencing has enabled the widespread use of genomics to guide targeted therapy in oncology. The emergence of the liquid biopsy has the potential to allow monitoring of patients for relapse in a minimally invasive manner. It is important for laboratory professionals to understand these technologies.

At the end of the session, the participant will be able to:

- Describe the technical challenges in implementing NGS
- List the benefits of liquid biopsies in caring for oncology patients
- Summarize the pitfalls in NGS testing and in liquid biopsies

Saturday, October 12, 2019

Breakout Sessions 10:30-Noon

15. Practical Microbiology for Small and Referring Laboratories

Speaker: Debbie Shell, MLS(ASCP)^{CM} SM, DLM

Level of Instruction: Intermediate

Sponsor:

Contact Hours: 1.5

Clinical laboratories are rapidly decreasing or eliminating the number of microbiology tests performed on site. This session will assist small and referring laboratories in providing in-house microbiology testing that can be performed quickly and economically, and provide necessary services for providers and their patients. This session is for generalists and those with some experience in Clinical Microbiology.

At the end of the session, the participant will be able to:

- Identify microbiological tests that are important for on-site testing
- Review microbiological test procedures and quality control appropriate for small and referring laboratories
- Develop a plan for microbiology training, testing, quality control and competency

16. Patient Blood Management: At the Forefront of Quality and Value in Healthcare

Speaker: Ryan A. Metcalf, MD, CQA(ASQ)

Level of Instruction: Intermediate

Sponsor: ARUP Laboratories

Contact Hours: 1.5

Blood transfusion is the most commonly performed procedure in the United States, is often overperformed, and Patient Blood Management (PBM) is now considered standard of care. Per capita health care costs in the United States are double those of many other high-income countries without better outcomes. PBM creates value by simultaneously improving patient outcomes, reducing costs, and improving efficiency. This PBM presentation is in three parts: reducing unnecessary transfusions, comprehensive PBM, and the effective use of data now and in the future.

At the end of the session, the participant will be able to:

- Define patient blood management (PBM) and summarize what comprises the discipline
- Appraise evidence for blood transfusion indications
- Identify how you can develop a patient blood management program
- Evaluate strategies for effective collection, organization, and application of data at your hospital to optimize practice and monitor quality

