





# 2017 Ohio Collaborative Laboratory Conference

**When:** May 3 – 5, 2017

**Where:** Double Tree by Hilton Hotel  
 175 Hutchinson Ave, Columbus, OH 43235, | (614) 885-3334  
<http://doubletree.hilton.com/en/dt/groups/personalized/C/CMHWNDT-CLA-20170502/index.jhtml>  
 Lodging Rate is \$116/night, with internet and breakfast (for up to 2 people) included. Use group code CLA.

**Registration:** Register online at [www.ohio-clc.com](http://www.ohio-clc.com)

**Early Bird Discount registration ends April 14, 2017**

	Full Conference (Discount/ Regular)	Wednesday Only (Discount/ Regular)	Thursday Only (Discount/ Regular)	Friday Only (Discount/ Regular)
<b>Member</b>	\$175 / \$230	\$75 / \$100	\$95 / \$135	\$95 / \$135
<b>Non-member</b>	\$250 / \$305	\$105 / \$130	\$130 / \$170	\$130 / \$170
<b>Student Member</b>	\$75 / \$120	\$35 / \$60	\$40 / \$65	\$40 / \$65
<b>Student Non-member</b>	\$105 / \$150	\$50 / \$70	\$55 / \$80	\$55 / \$80
<b>Institutional Badge</b>	\$270 / \$325			
<b>Additional Institutional Badge (each)</b>	\$185 / \$235			

**Individual Full Registration Includes:**

- ✓ Attendance at all conference sessions
- ✓ Lunch plus morning and afternoon refreshment breaks
- ✓ Wednesday evening dinner

**Individual Daily Registration:**

- ✓ All sessions, refreshment breaks and lunch either day

**Institutional Registration:** *Institutional Badges must be purchased online in advance.*

Institutional badges are shared registrations, in which one employee can attend a time. One lunch ticket will be provided on Thursday and Friday for each badge purchased. Please contact [laboratory@ohio-clc.com](mailto:laboratory@ohio-clc.com) to request an electronic copy of the "Institutional Badge Users Session Selection Worksheet".

**Refunds and Cancellations:**

Full registration fees will be refunded only if a written request is postmarked on or before April 14, 2017. A session may be cancelled if there is insufficient interest from registrants.

**Dietary and Special Accommodations:**

Contact [laboratory@ohio-clc.com](mailto:laboratory@ohio-clc.com) by April 14<sup>th</sup> if you have any special dietary requirements or need special accommodations.

## Keynote Speaker

### ***Getting to Happy: Emotional Intelligence and Its Role in Enhancing Teamwork, Satisfaction and Patient Safety*** presented by **Vinay Prasad, MD**



The session will explore concepts of emotional intelligence (EI), its effects on teams and the importance of EI in leadership in the Laboratory. We will learn how to motivate ourselves and different techniques to promote teamwork.

Vinay Prasad, MD, FASCP, FCAP

Director of Surgical Pathology  
Director of Pediatric GI Pathology Nationwide Children's Hospital  
Associate Professor, The Ohio State University

## Program at a Glance

### Wednesday

<b>12:30 – 5:00</b>	<b>Registration</b>		
<b>1:00 – 2:00</b>	<b>W1</b> Kiddie Lipids: A Review of Lipid Testing in Children  David Thornton, PhD, DABCC	<b>W2</b> Introduction to Modern Mass Spectrometry and Separation Techniques  Patrick DeArmond, PhD	<b>W3</b> Lab Finance 101  Teresa Williams, MHA, MT (ASCP)
<b>2:00 – 2:30</b>	<b>Refreshment Break</b>		
<b>2:30 – 3:30</b>	<b>W4</b> Sepsis Workup: Where Chemistry and Micro Meet  Amy Pyle-Eilola, PhD, DABCC and Stella Antonara, PhD, D(ABMM)	<b>W5</b> Organisms Encountered In Blood And Body Fluids in the General Pathology Practice  Samir B. Kahwash, MD	<b>W6</b> HIV & HCV: Screening and Beyond  Ike Northern, MT, SM (ASCP)
<b>3:45 – 4:45</b>	<b>W7</b> CRE: A Bench Tech Guide To Identification And Confirmation  Shannon M. Kern, MPH, BS, MLS(ASCP) <sup>CM</sup>	<b>W8</b> Flow Cytometry for the Diagnosis of Lymphoproliferative Disorders  Fatima Hamadeh, MD	<b>W9</b> A BRAVE New World: Glucose in Critically Ill Populations  Steven Cotten, PhD, DABCC
<b>5:00 – 7:00</b>	<b>Dinner</b>		
<b>7:00 – 9:00</b>	<b>ASCLS-OH Board of Directors Meeting</b>		

Thursday

8:00 – 5:00	<b>Registration</b>			
8:00 – 8:30	<b>Continental Breakfast</b>			
8:30 – 9:30	<p style="text-align: center;"><b>T10</b></p> <p>Semen Analysis Case Studies: If Sperm Could Talk</p> <p style="text-align: center;">Anna-Marie Bort, MLT(ASCP)<sup>CM</sup></p>	<p style="text-align: center;"><b>T11</b></p> <p>Quality Management in Point of Care Testing</p> <p style="text-align: center;">Sandra VanVranken, MS, MT(ASCP)SH and Karen Scott, MT (ASCP)</p>	<p style="text-align: center;"><b>T12</b></p> <p>Infectious Agents in the News</p> <p style="text-align: center;">Kevin M. Harvey, PhD, D(ABMM)</p>	<p style="text-align: center;"><b>T13</b></p> <p>ANA Testing: The Renaissance of Indirect Immunofluorescence Assay (IFA)</p> <p style="text-align: center;">Vincent Ricchiuti, PhD</p>
9:30 – 9:45	<b>Refreshment Break</b>			
9:45 – 10:45	<p><b>T14: Welcome &amp; Keynote Address</b></p> <p>Getting to Happy: Emotional Intelligence &amp; Its Role in Enhancing Teamwork, Satisfaction &amp; Patient Safety</p> <p style="text-align: center;">Vinay Prasad MD, FASCP, FCAP</p>			
11:00 – 12:00	<p style="text-align: center;"><b>T15</b></p> <p>Update on Infectious Mononucleosis</p> <p style="text-align: center;">Roslyn McQueen, PhD</p>	<p style="text-align: center;"><b>T16</b></p> <p>Discovering and Evaluating Unacceptable Specimens</p> <p style="text-align: center;">Sandra VanVranken, MS, MT(ASCP)SH</p>	<p style="text-align: center;"><b>T17</b></p> <p>Newly Emerging Parasitic and Mycotic Agents</p> <p style="text-align: center;">Marcia Lee, MLS(ASCP)<sup>CM</sup>, DVM, MS</p>	<p style="text-align: center;"><b>T18</b></p> <p>Big Data, Informatics and the Future of Laboratory Quality Control</p> <p style="text-align: center;">Chris Crutchfield, PhD</p>
12:00 – 1:30	<b>Luncheon &amp; Visit Vendors</b>			
1:30 – 2:30	<p style="text-align: center;"><b>T19</b></p> <p>An Update on Emerging Novel Psychoactive Substances (NPS) – Is it Possible to Keep up with the Joneses?</p> <p style="text-align: center;">Robert A. Middleberg, PhD, F-ABFT, DABCC</p>	<p style="text-align: center;"><b>T20</b></p> <p>Clinical Impact Associated with Laboratory Errors</p> <p style="text-align: center;">Joan-Miquel Balada-Llasat, PharmD, PhD D(ABMM)</p>	<p style="text-align: center;"><b>T21</b></p> <p>cGMP for the Transfusion Service</p> <p style="text-align: center;">Theresa Downs, MT(ASCP)SBB, CQA(ASQ)</p>	<p style="text-align: center;"><b>T22</b></p> <p>Drunk or Not – That's the Question</p> <p style="text-align: center;">Vikram Palamalai, PhD</p>
2:45 – 3:45	<p style="text-align: center;"><b>T23</b></p> <p>Zen and the Art of Hemoglobinopathy Diagnosis</p> <p style="text-align: center;">Julianne Qualtieri, MD</p>	<p style="text-align: center;"><b>T24</b></p> <p>Professional Development: Excellence in Practice and Quality Patient Care</p> <p style="text-align: center;">Rosanne Kelley FACHE, MBA, MT</p>	<p style="text-align: center;"><b>T25</b></p> <p>Where Justice Meets Science: The Use of DNA in Forensic Investigations</p> <p style="text-align: center;">Robert E Pyatt, PhD</p>	<p style="text-align: center;"><b>T26</b></p> <p>Competency and Proficiency Testing - What's the Difference?</p> <p style="text-align: center;">Susan A Rothmann, PhD HCLD ALD</p>
3:45 - 4:00	<b>Refreshment Break/Visit Vendors</b>			
4:00 – 5:00	<p style="text-align: center;"><b>T27</b></p> <p>Blood Bank Support of the Neonatal and Pediatric ECMO Patient</p> <p style="text-align: center;">Kathleen Nicol, MD</p>	<p style="text-align: center;"><b>T28</b></p> <p>Conduct Lean Projects in the Clinical Lab</p> <p style="text-align: center;">Sihe Wang, PhD, DABCC, FACB</p>	<p style="text-align: center;"><b>T29</b></p> <p>Recovering from Irrational Exuberance: The Challenge of Proteomics in the Clinic</p> <p style="text-align: center;">Cory Bystrom, PhD</p>	<p style="text-align: center;"><b>T30</b></p> <p>Earlier Prediction of Patient Risk for Acute Kidney Failure</p> <p style="text-align: center;">Baqir Jakvani, MD</p>
5:00 – 7:00	<b>Vendor Reception</b>			

Friday

8:00 – 3:00	<b>Registration</b>			
8:00 – 8:30	<b>Continental Breakfast/Networking</b>			<b>F31</b>
8:30 – 9:30	<b>F32</b> Clinical Impacts of Rapid Identification from Positive Blood Cultures  George Kallstrom, PhD	<b>F33</b> Serologic Markers of Type 1 Diabetes: Are We Ready for Screening/Prevention?  Manjula Gupta PhD, FACB	<b>F34</b> Update 2016 WHO Classification of Hematopoietic and Lymphocytic Neoplasm  Dr. (John) Weiqiang Zhao, MD PhD, FCAP	ASCLS-Ohio Member Business Meeting  8:00 – 9:30
9:30 – 9:45	<b>Refreshment Break/Visit Vendors</b>			
9:45 – 10:45	<b>F35</b> Advances in the Diagnosis of Primary Aldosteronism  Joesph R Wiencek, PhD	<b>F36</b> Improving Performance, Productivity, Quality, and Patient Care with Real-Time Analytics  Thomas P Joseph, MBA, MT(ASCP)	<b>F37</b> Preventing Preanalytical Errors—The Role of the Phlebotomist  Beth Warning, MS, MLS(ASCP) <sup>CM</sup>	<b>F38</b> “The Opioid Epidemic in Ohio - A Crime Laboratory Perspective”  Douglas E Rohde, MS, F-ABC, MLT(ASCP)
10:45 – 12:30	<b>Vendor Exhibits (10:45 – Noon)</b> <b>Lunch (11:30 – 12:30)</b>			
12:30 – 1:30	<b>F39</b> Quality Control: Moving Beyond Westgard Rules  Joe El-Khoury, PhD, DABCC, FACB	<b>F40</b> The Unified Field Theory of Diabetes, Clinical Chemistry, and Everything  Chad Guilliams, M Ed, MLS (ASCP) <sup>CM</sup>	<b>F41</b> Inflammation: From Insult to Resolution  Wm. Daniel Follas, MS	<b>F42</b> The 5W's of Investigating Anemia  Erin C Rumpke MS, MT(ASCP)
1:45 – 2:45	<b>F43</b> Thyroid Testing: T-disease, the Pregnant and the Diabetic  Linda S Gorman, PhD	<b>F44</b> The Reciprocal Relationship Between Inflammation and Hemostasis: Clinical and Therapeutic Implications  J Lynne Williams, PhD, MT(ASCP)	<b>F45</b> Hot Topics in Public Health Microbiology  Tammy Bannerman, PhD, D(ABMM)	<b>F46</b> Preparing for the BOC Exam - A Brief Review and Action Plan  Charity Accurso, PhD, MLS(ASCP) <sup>CM</sup>
2:45 – 3:00	<b>Refreshment Break</b>			
3:00 – 4:00	<b>F47</b> miRNAs in Hematologic Malignancies  Kristin Landis-Piwowar, PhD, MLS (ASCP) <sup>CM</sup>	<b>F48</b> Diagnostic Testing for Meningitis/Encephalitis  Amy L. Leber, PhD, D (ABMM), SM (ASCP) MB	<b>F49</b> Transfusion Reactions: Identification, Management, and Prevention  Matthew Montgomery, MD	<b>F50</b> Immunoassays are Imperfect: Lessons from Thyroid Hormone Testing?  Christine Schmotzer, MD
2:45 – 5:00	<b>Academic Challenge &amp; Student Mixer</b>			

# Session Abstracts 2017

Please note that the “level of instruction” is designated as Basic (B), Intermediate (I) or Advanced (A) following the title for each session.

## **W1. Kiddie Lipids: A Review of Lipid Testing in Children (B)**

**David Thornton, PhD, DABCC**  
Nationwide Children's Hospital

Recommendations and interpretation of lipid testing in pediatric populations.

## **W2. Introduction to Modern Mass Spectrometry and Separation Techniques (B)**

**Patrick DeArmond, PhD**  
Nationwide Children's Hospital

Mass spectrometry is beginning to occupy a larger footprint in the clinical laboratory, yet many still find these instruments intimidating or consider them “black boxes”. This presentation will cover the basics of this powerful technique and will discuss its application to the clinical laboratory.

## **W3. Lab Finance 101 (B)**

**Teresa Williams, MHA, MT (ASCP)**  
CompuNet Clinical Lab

This presentation will provide an overview for laboratorians to understand financial terms and analysis with regards to laboratory services. This session will serve to increase the business acumen of laboratorians to increase the understanding of how and why decisions are made to insource or send out a test. In addition, the use of CPT codes and test cost structure will be reviewed. Finally, clarity on how to read a Profit & Loss (P&L) statement will be reviewed.

## **W4. Sepsis Workup: Where Chemistry and Micro Meet (I)**

**Amy Pyle-Eilola, PhD, DABCC**  
Nationwide Children's Hospital  
**Stella Antonara, PhD, D(ABMM)**  
Nationwide Children's Hospital

Work up and diagnosis of a patient with suspected sepsis is complex and involves laboratory investigations from multiple lab areas. The emerging use of tests in chemistry and microbiology are changing the way sepsis is diagnosed and treated.

## **W5. Organisms Encountered In Blood and Body Fluids in the General Pathology Practice (I)**

**Samir B. Kahwash, MD**  
Nationwide Children's Hospital

This presentation will focus on the morphologic recognition of organisms encountered in blood and body fluids, such as Malaria species, fungi and bacteria.

## **W6. HIV & HCV: Screening and Beyond (I)**

**Ike Northern, MT, SM (ASCP)**

CompuNet Clinical Lab

In this session we will discuss the various tests available for HIV and HCV. Over the past several years there have been changes in the tests used for screening and confirmation for HIV and HCV. In addition, there are genotype assays and resistance assays available. We will discuss these assays and their clinical utility.

## **W7. CRE: A Bench Tech Guide to Identification and Confirmation (I)**

**Shannon M. Kern, MPH, BS, MLS (ASCP)<sup>CM</sup>**  
VA Medical Center

This session is designed for the bench tech and will focus on Carbapenem Resistant Enterobacteriaceae. An emerging threat of global concern, the focus will be on identification and confirmation of susceptibility profiles. Common pitfalls in identification and genetic testing will be discussed.

## **W8. Flow Cytometry for the Diagnosis of Lymphoproliferative Disorders (B)**

**Fatima Hamadeh, MD**  
University Hospitals Cleveland Medical Center

This presentation includes a brief overview of clinical flow cytometry and its applications for the diagnosis of lymphoproliferative disorders, including lymphomas and lymphoid leukemias. Disease-specific markers, methods for detecting clonal lymphoid populations, and diagnostic pitfalls will be discussed.

## **W9. A BRAVE New World: Glucose in Critically Ill Populations (I)**

**Steven Cotten, PhD, DABCC**  
The Ohio State University Wexner Medical Center

This symposium will explore the use of point of care (POC) glucose in populations that may contain critically ill patients. Guidance from the FDA, CMS, and device manufacturers has recently changed dramatically regarding the use of point of care glucose devices in critically ill individuals. The session will cover the current clinical indications and regulatory issues from the laboratory and IVD manufacturer perspective.

## **T10. Semen Analysis Case Studies: If Sperm Could Talk (B)**

**Anna-Marie Bort, MLT(ASCP)<sup>CM</sup>**  
Fertility Solutions Inc.

This is a review of typical and unusual cases encountered during routine complete semen analyses and post vasectomy testing. The review will include core components of semen analysis, result interpretation and analysis troubleshooting.

**T11. Quality Management in Point of Care Testing (I)****Sandra VanVranken, MS, MT(ASCP)SH**

The Ohio State University

**Karen Scott, MT (ASCP)**

The Ohio State University

The presentation will examine the regulatory standards (CLIA, CAP, TJC) regarding quality and their application to Point of Care Testing. Various quality improvement metrics will be discussed. Other tools such as scorecards, audits, tracers utilized in Point of Care Testing will also be shared.

**T12. Infectious Agents in the News (I)****Kevin M. Harvey, PhD, D(ABMM)**

Laboratory Corporation of America (LabCorp)

The program will be an overview of the latest outbreak of infectious agent(s) challenging clinicians and laboratories and discuss pathogens to watch for in 2017.

**T13. ANA Testing: The Renaissance of Indirect Immunofluorescence Assay (IFA) (B)****Vincent Ricchiuti, PhD**

Laboratory Corporation of America (LabCorp)

When the ANA HEp-2 test first became available, it was ordered by rheumatologist and clinical immunologists exclusively. With the emerging recognition that many other diseases are associated with ANAs, a broad range of clinical disciplines order the ANA test. With changes in the ANA referral pattern and the associated decrease in the pretest probability, the posttest probability significantly decreases. The occurrence of these processes in clinical laboratories has led to the advent of a new era in the measurement of autoantibodies, with exponential increase in analytic capacity and corresponding rise in the volume of test requests for the diagnosis of AIDs. This evolution has brought about the rapid disposal of 1st and 2nd generation immunoassay methods to the benefit of automated 3rd generation immunoassay methods.

**T14. KEYNOTE: Getting to Happy: Emotional Intelligence & Its Role in Enhancing Teamwork, Satisfaction & Patient Safety (B)****Vinay Prasad MD, FASCP, FCAP**

Nationwide Children's Hospital

The Ohio State University

The session will explore concepts of emotional intelligence (EI), its effects on teams and the importance of EI in leadership in the Laboratory. We will learn how to motivate ourselves and different techniques to promote teamwork.

**T15. Update on Infectious Mononucleosis (B)****Roslyn McQueen, PhD**

Hurley Medical Center

Infectious mononucleosis (IM) is a self-limiting lymphoproliferative disease caused by infection with Epstein-Barr virus (EBV). Patients present with a triad of fever, pharyngitis and lymphadenopathy. About 80–90% of all adults has had exposure and possesses lifelong immunity. Cellular immunity due to T lymphocytes is important in limiting the viral growth of EBV-infected B lymphocytes. The presentation will discuss the diagnosis, clinical manifestations, complications and treatment of IM.

**T16. Discovering and Evaluating Unacceptable Specimens (I)****Sandra VanVranken, MS, MT(ASCP)SH**

The Ohio State University

This presentation will delve into the pre-analytical error side – looking at the quality of laboratory specimens. Evaluating unusual specimen values will be discussed as well as common signs of poor specimen quality. Challenges in communicating unacceptable specimens to nursing will also be discussed.

**T17. Newly Emerging Parasitic and Mycotic Agents (B)****Marcia Lee, MLS(ASCP)<sup>CM</sup>, DVM, MS**

Miami University

Newly emerging and re-emerging parasites and fungi are linked to an array of public health challenges. In this session parasites and fungi responsible for outbreak and epidemics will be discussed along with public health strategies employed to control or halt the spread of these agents.

**T18. Big Data, Informatics and the Future of Laboratory Quality Control (B)****Chris Crutchfield, PhD**

University of Cincinnati

Computational assessment of clinical laboratory data is critical to optimizing laboratory operations and ensuring test accuracy. This presentation will discuss fundamentals of data analytics for the clinical scientist. Applications discussed will be those used for laboratory quality improvement and quality control.

**T19. An Update on Emerging Novel Psychoactive Substances (NPS) – Is it Possible to Keep up with the Joneses? (B)****Robert A. Middleberg, PhD, F-ABFT, DABCC**

NMS Labs

Novel psychoactive substances (NPS) emerged in the US around 2000. Initially, synthetic cannabinoids and stimulants prevailed. Now, designer opioids, benzodiazepines and others have appeared. Deaths from these compounds are now commonplace. The landscape of these compounds changes frequently, making it difficult for toxicology laboratories to stay relevant. The analytical challenges of NPS' and case reports will be highlighted.

**T20. Clinical Impact Associated with Laboratory Errors (I)****Juan-Miquel Balada-Llasat, PharmD, PhD D (ABMM)**

The Ohio State University

The lecture will review the design and application of metrics for quality management in laboratories used to reduce errors with a focus on the clinical impact of errors. Data from multicenter studies relating to establishment of a benchmark for corrected reports in clinical microbiology laboratories will be presented and strategies used to identify errors discussed. The lecture will also demonstrate applicable methods for collection and analysis of data and provide information that will be generalizable to microbiology labs of various sizes and complexities.



**T21. cGMP for the Transfusion Service (I)**  
**Theresa Downs, MT(ASCP)SBB, CQA(ASQ)**  
University of Michigan Hospital

What are cGMPs and why do we care so much about them? This session will describe the importance of cGMPs, why the FDA mandates them and how they fit in with our day to day work. Case studies in cGMPs will be reviewed to explain how they affect patient testing and product quality.

**T22. Drunk or Not – That’s the Question (B)**  
**Vikram Palamalai, PhD**  
Case Western Reserve University

Signs of visible intoxication are important to determine if a person is intoxicated or not. Recognition of such visible intoxication is important for medico-legal purposes. However such visible signs may not be always obvious or visible. This presentation aims to provide an overview of signs of visible intoxication and the validity of such indicators.

**T23. Zen and the Art of Hemoglobinopathy Diagnosis (I)**  
**Julianne Qualtieri, MD**  
University of Cincinnati Department of Pathology & Laboratory Medicine

This case-based session will focus on the diagnosis of hemoglobinopathies utilizing capillary gel electrophoresis, a true Zen experience of chemistry and hematology. After a brief review of normal hemoglobin structure and function, several challenging cases will be presented with discussion of the differential diagnosis and strategies to arrive at a final diagnosis. Audience participation is encouraged!

**T24. Professional Development: Excellence in Practice and Quality Patient Care (B)**  
**Rosanne Kelley, FACHE, MBA, MT**  
Cleveland Clinic

In 2013 The Cleveland Clinic Laboratory implemented a Professional Development Initiative. It is designed to recognize Laboratory and Pathology Staff for their advanced clinical performance and demonstration of leadership skills in providing patient care. The program encourages professional development, facilitates career advancement, and supports recognition and retention. The initiative involves a rigorous application process and submission of a portfolio. Comprehensive review of the materials leads to a monetary award based on category level obtained. It provides employees an alternative to professional development outside of formal supervisory or management roles.

**T25. Where Justice Meets Science: The Use of DNA in Forensic Investigations (B)**  
**Robert E Pyatt, PhD**  
Sanford Health Imagenetics

Dr. Pyatt has served as a consultant on genetic evidence in criminal investigations for over 10 years. In this session, he will discuss the use of DNA including random match probability calculations and the impact of genetic variation on the interpretation of results. He will also highlight some controversies surrounding DNA as evidence including contamination, familial searches, and abandoned DNA.

**T26. Competency and Proficiency Testing - What's the Difference? (B)**  
**Susan A Rothmann, PhD HCLD ALD**  
Fertility Solutions Inc.

CLIA requires two kinds of performance testing: competency and proficiency. Competency tests the individual technologist in 6 key areas of performance. Proficiency tests the laboratory accuracy on a test by test basis. Find out how these differ and how your lab can meet these important requirements.

**T27. Blood Bank Support of the Neonatal and Pediatric ECMO Patient (B)**  
**Kathleen Nicol, MD**  
Nationwide Children’s Hospital

Will review the components of ECMO and the clinical indications for use and the challenges of ECMO. What blood products are used at initiation and then ongoing support due to the utilization of systemic anti-coagulation.

**T28. Conduct Lean Projects in the Clinical Lab (B)**  
**Sihe Wang, PhD, DABCC, FACHB**  
Cleveland Clinic

Lean is a tool to assist in identifying and removing waste in a process. Consequently, the production time and expense are reduced. There are 7 common wastes: overproduction, waiting, defects, process inefficiency, transportation, inventory, and motion. Lean takes the following steps: define, investigate, streamline, and control. This presentation will introduce the basic concepts and use a real-life example to illustrate how it may work for the clinical labs.

**T29. Recovering from Irrational Exuberance: The Challenge of Proteomics in the Clinic (B)**  
**Cory Bystrom, PhD**  
Cleveland HeartLab

Challenges of transferring discovery proteomics to clinical practice.

**T30. Earlier Prediction of Patient Risk for Acute Kidney Failure (B)**  
**Baqir Jakvani, MD**  
Ortho Clinical Diagnostics

Attendees will gain a broader understanding of the incidence and implications of acute kidney injury. They will also learn about new biomarkers that can predict acute kidney injury, allowing physicians to intervene and potentially avoid the morbidity and mortality associated with the condition.

**F32. Clinical Impacts of Rapid Identification from Positive Blood Cultures (I)**  
**George Kallstrom, PhD**  
Summa Health System

Technology is rapidly changing the modern Microbiology laboratory. Mass Spectrometry, PCR, nucleic acid sequencing and total lab automation are all highly regarded technologies. Do these new technologies benefit the patient? This presentation will discuss some of the newer molecular technologies with a focus on rapid blood stream pathogen identification and the impact (or lack thereof) on patient outcomes and system cost.

**F33. Serologic Markers of Type 1 Diabetes: Are We Ready for Screening/Prevention? (I)**

**Manjula Gupta, PhD, FACB**  
Cleveland Clinic

Type-1 diabetes is characterized by absolute insulin-deficiency due to autoimmunity leading to  $\beta$ -cell destruction and can be identified by serological markers of autoimmunity i.e. islet-cell autoantibodies to glutamic-acid decarboxylase [GAD], insulin, insulinoma-associated protein [IA-2], zinc-transporter [ZnT8] in  $\beta$  cells. While autoantibodies are early screening tool, T-cell mediated immune response is the cause of beta-cell destruction and target for prevention trials.

**F34. Update 2016 WHO Classification of Hematopoietic and Lymphocytic Neoplasm (I)**

**Dr. (John) Weiqiang Zhao, MD PhD, FCAP**  
The Ohio University Wexner Medical Center

The presentation will provide a concise but comprehensive summary for the revision of World Health Organization (WHO) classification of hematopoietic and lymphoid tumors (2016). The speaker will integrate monograph, tables, algorithms, photos of clinical cases, and clinical laboratory tests from author's institute in the presentation to make it attainably to audiences with limited hematology specialty background.

**F35. Advances in the Diagnosis of Primary Aldosteronism (B)**

**Joseph R. Wiencek, PhD**  
Vanderbilt University School of Medicine

The 2016 Endocrine Society Guideline for Primary Aldosteronism (PA) calls the disorder a major public health issue. Once considered rare, PA is now estimated to make up 15% of all hypertensive cases. As screening is expected to increase in the primary-care setting, laboratorians will need to further collaborate to advance patient care.

**F36. Improving Performance, Productivity, Quality, and Patient Care with Real-Time Analytics (I)**

**Thomas P Joseph**  
Visiun, Inc.

This session will examine the ways in which laboratory managers in leading health systems and academic medical centers across the country are using real-time analytics in their laboratories to enhance performance, productivity, quality, financial performance and patient care as well as improving their ability to manage effectively.

**F37. Preventing Preanalytical Errors—The Role of the Phlebotomist (I)**

**Beth Warning, MS, MLS (ASCP) CM**  
University of Cincinnati

The role of the phlebotomist is often overlooked – phlebotomists are the face of the lab and are vital in maintaining the quality and integrity of the specimen used for analytical testing and medical decisions. This session will include a review of the consequences of improper collections, and how these errors can be prevented.

**F38. The Opioid Epidemic in Ohio - A Crime Laboratory Perspective (B)**

**Douglas E Rohde, MS, F-ABC, MLT-ASCP**  
Lake County Crime Laboratory

Ohio saw more opioid overdose deaths than anywhere else in the nation in 2014, and the numbers continue to rise (2,106 deaths in 2014 – Henry J. Kaiser Family Foundation report). This makes Ohio ground-zero in the US epidemic of opioid abuse. The constant influx of newer synthetic opioids has proven a challenge to forensic scientists and clinicians throughout the state. A brief historical overview of how this epidemic began will be given as well as the details of how one synthetic opioid, new to the state in 2016, was discovered and dealt with by legislative means.

**F39. Quality Control: Moving Beyond Westgard Rules (B)**

**Joe El-Khoury, PhD, DABCC, FACB**  
Yale-New Haven Health

In this session, we will cover the basics of quality control and Westgard rules before introducing other methods for monitoring QC, including moving averages, individualized quality control plan (IQCP), and proficiency testing. This session is intended for individuals with little to no experience with QC and may serve as a refresher for more experienced QC personnel.

**F40. The Unified Field Theory of Diabetes, Clinical Chemistry, and Everything (I)**

**Chad Guilliams, M Ed, MLS (ASCP)CM**  
University of Kentucky

A review of clinical chemistry from the perspective of diabetes and how it affects multiple bodily organ systems. The presentation will cover carbohydrates, pancreas function, renal system, electrolytes, acid-base disorders, lipids, and heart disease.

**F41. Inflammation: From Insult to Resolution (B)**

**Wm. Daniel Follas, MS**  
Xeno Diagnostics, LLC

Inflammation is the process by which the body responds to injury to first protect and then repair and restore the injured area to its normal homeostatic condition. Inflammatory processes effect cellular activities, major cascades, and signaling pathways. As a fundamental component of many diseases, insight into the pathogenesis of inflammation may lead to more effective testing, treatment, and prevention.

**F42. The 5W's of Investigating Anemia (B)**

**Erin C Rumpke MS, MT (ASCP)**  
University of Cincinnati

An investigative review of the 5W's (Who, What, When, Where, and Why!) for the most commonly diagnosed types of anemia in the clinical laboratory. Basic considerations related to the classification and diagnosis of anemia will be discussed.

**F43. Thyroid Testing: T-disease, the Pregnant and the Diabetic (I)**

**Linda S. Gorman, PhD**

University of Kentucky (Retired)

Thyroid disease takes many forms both hyperthyroid and hypothyroid. The complications of pregnancy and Diabetes can add to the already complex testing schemes for thyroid disease. This presentation will address the testing used to identify thyroid disease in typical thyroid disease as well as the post-partum issues and the thyroid problems in Type 2 Diabetics. Case studies will be used to demonstrate the factual information that we plan to cover in this lecture.

**F44. The Reciprocal Relationship between Inflammation and Hemostasis: Clinical and Therapeutic Implications (I)**

**J. Lynne Williams, PhD, MT(ASCP)**

Oakland University

Coagulation and Inflammation are two critical host defense systems. Extensive "crosstalk" between the two results in an intimate connection in eliminating pathogens, limiting tissue damage, and maintaining tissue hemostasis. The laboratory plays an important role in early diagnosis of a pathologic inflammatory process, which may result in improved outcome for the patient.

**F45. Hot Topics in Public Health Microbiology (I)**

**Tammy Bannerman, PhD, D(ABMM)**

The Ohio State University

The presentation will introduce current hot topics in public health microbiology; including multiplex amplification (culture-independent) assays and next generation sequencing.

**F46. Preparing for the BOC Exam - A Brief Review and Action Plan (I)**

**Charity Accurso, PhD, MT (ASCP)**

University of Cincinnati

Preparing for the national examination can be a daunting task, but a little preparation will ensure that you are ready for the big day. This session will provide you with self-assessment techniques, study strategies and plans to put into place in the months prior to your examination day.

**F47. miRNAs in Hematologic Malignancies (I)**

**Kristin Landis-Piwowar, PhD, MLS (ASCP)<sup>CM</sup>**

Oakland University

MicroRNAs are crucial regulators in numerous pathologic and physiologic processes. These short, non-coding RNAs represent a new diagnostic tool for disease and in disease monitoring. This session will discuss the function of microRNAs, how they can be used as novel biomarkers for hematological malignancies, and will highlight molecular means of detection.

**F48. Diagnostic Testing for Meningitis/Encephalitis (I)**

**Amy L. Leber, PhD, D (ABMM), SM (ASCP) MB**

Nationwide Children's Hospital

Rapid diagnosis and treatment of infectious meningitis and encephalitis (ME) are critical to minimize morbidity and mortality. Comprehensive testing of CSF includes Gram stain, culture, and molecular methods, paired with chemical and cellular analysis. In this session, the epidemiology of infectious ME will be reviewed. The pros and cons of testing methods will be discussed with a focus on newer amplified molecular tests now available.

**F49. Transfusion Reactions: Identification, Management, and Prevention (I)**

**Matthew Montgomery, MD**

Hoxworth Blood Center, University of Cincinnati

This presentation will focus on the pathophysiological and immunologic background of transfusion reactions, as well as the signs and symptoms of the most common reactions as well as their immediate management and laboratory investigation. Focus will also be given to prevention of reactions, especially in regards to proper labeling and administration practices.

**F50. Challenges with Immunoassays: What Can We Learn from Thyroid Hormone Testing? (B)**

**Christine Schmotzer, MD**

University Hospitals Cleveland Medical Center

Immunoassays are commonly and effectively used in clinical laboratories for a broad range of conditions. However, successful use requires an understanding of the limitations of these assays. Using examples from thyroid hormone assays, this talk will address common (and uncommon) limitations to be aware of when offering immunoassays.



## Industry Networking

The 2017 Ohio Collaborative Laboratory Conference will have many vendors present again, to show us what's new in our field. There will be demonstration vans parked outside with some of the latest Chemistry, Hematology and Immunoassay instruments. The exhibit hall will give you the opportunity to talk to numerous representatives from the different companies. The vendor exhibits are open Thursday from 12-7pm and Friday 9:30-12pm.

Each year these vendors help sponsor the Ohio Collaborative Laboratory Conference. They play a significant role in sponsoring speakers, breaks, and lunches, helping to make it possible for us to put on the caliber of conference we do each year. Please take time during the conference to visit with them, learn about new laboratory products, make great connections and thank them for their support.

### **Vendor Reception: Thursday May 4, 5-7pm**

## Special Events

### **Wednesday, May 3<sup>rd</sup> 5:00-7:00 PM: Mix and Mingle Dinner!**

The 2017 Ohio Collaborative Laboratory Conference steering committee, co-chairs, and all members invite you to a social event to kick off this year's conference. This is an opportunity to catch up with friends and colleagues, make new ones, and relax before the conference swings into full gear on Thursday. **Please be sure to check the Wednesday dinner option on your registration to join us. A ticket will be included in your full registration packet.**

### **Friday, May 5<sup>th</sup> 2:45 – 5:00 PM: Student Academic Challenge!**

The ASCLS Academic Challenge committee is looking for excited, enthusiastic MLT and MLS students to participate in the 13th Annual Academic Challenge (AKA: Student Bowl). To organize your team you will need three members and one or two alternates. Team members must be registered participants for the meeting in order to qualify being on a team. The deadline for registering your team is April 14<sup>th</sup>, so get your team organized, and come join students from all around the state for an afternoon of competition and educational fun. The registration form is on the CLC website.

## Tips and FAQs

*Want to get the most out of the CLC conference?*

### Employer Approved Registration

Registration is online this year. For attendees that need paper copies of registration forms for institution approval, a paper copy can be downloaded from the website and submitted to your employer.

### Attention: Members of AACC, ASCLS, CLMA

When completing the conference registration form, please check the appropriate member box(es) – and provide your member number for each. This will ensure that your status as a member of one (or more) of the collaboration organizations (AACC – Northeast Ohio Section, Ohio Valley Section, ASCLS-Ohio, CLMA–First Ohio, Six Rivers, or Western Lake Erie Chapter) is recognized and member registration fees will apply. Your current membership status in the organization(s) selected will be verified.

### Continental Breakfast

Plan to join your colleagues at the complimentary Continental Breakfast on Thursday and Friday mornings from 8:00 am- 8:30 am. For those spending the night at the hotel, remember that two complimentary buffet breakfasts are included with your reservation (redeemable at the hotel's restaurant).

### Special Accommodations

If you have special needs that require accommodation, including any dietary restrictions (i.e.: vegetarian) or food allergies, please contact Ohio CLC at [laboratory@ohio-clc.com](mailto:laboratory@ohio-clc.com). The deadline is April 14<sup>th</sup> for any special dietary requirements.

## Continuing Education Credits

ASCLS-Ohio is an approved provider of continuing education programs by the American Society for Clinical Laboratory Science (ASCLS) P.A.C.E. ® Program. Attendees can earn up to 14 continuing education credits from the 49 educational sessions that are offered. A “Certificate of Attendance” will be available to print from ASCLS website for all sessions attended.

## 2017 Charity Fundraiser



We are pleased this year to support the Cystic Fibrosis Foundation as the 2017 CLC charity organization. The Cystic Fibrosis Foundation is the world's leader in the search for a cure for cystic fibrosis. The Foundation funds more cystic fibrosis research than any other organization, and nearly every CF drug available today was made possible because of Foundation support. Based in Bethesda, Maryland, the Foundation also supports and accredits a national care center network that has been recognized by the National Institutes of Health as a model of care for a chronic disease. The Cystic Fibrosis Foundation is a donor-supported nonprofit organization. For more information, go to [www.cff.org](http://www.cff.org). A donation table will be available at the meeting and proceeds from CLC T-shirt sales will be donated to the Cystic Fibrosis Foundation.

# 2017 Ohio Collaborative Laboratory Conference

**When:** May 3 – 5, 2017

**Where:** Double Tree by Hilton Hotel  
 175 Hutchinson Ave, Columbus, OH 43235, | (614) 885-3334  
<http://doubletree.hilton.com/en/dt/groups/personalized/C/CMHWNDT-CLA-20170502/index.jhtml>  
 Lodging Rate is \$116/night, with internet and breakfast (for up to 2 people) included. Use group code CLA.

**Registration:** Register online at [www.ohio-clc.com](http://www.ohio-clc.com)

**Early Bird Discount registration ends April 14, 2017**

	Full Conference (Discount/ Regular)	Wednesday Only (Discount/ Regular)	Thursday Only (Discount/ Regular)	Friday Only (Discount/ Regular)
<b>Member</b>	\$175 / \$230	\$75 / \$100	\$95 / \$135	\$95 / \$135
<b>Non-member</b>	\$250 / \$305	\$105 / \$130	\$130 / \$170	\$130 / \$170
<b>Student Member</b>	\$75 / \$120	\$35 / \$60	\$40 / \$65	\$40 / \$65
<b>Student Non-member</b>	\$105 / \$150	\$50 / \$70	\$55 / \$80	\$55 / \$80
<b>Institutional Badge</b>	\$270 / \$325			
<b>Additional Institutional Badge (each)</b>	\$185 / \$235			

**Individual Full Registration Includes:**

- ✓ Attendance at all conference sessions
- ✓ Lunch plus morning and afternoon refreshment breaks
- ✓ Wednesday evening dinner

**Individual Daily Registration:**

- ✓ All sessions, refreshment breaks and lunch either day

**Institutional Registration:** *Institutional Badges must be purchased online in advance.*

Institutional badges are shared registrations, in which one employee can attend a time. One lunch ticket will be provided on Thursday and Friday for each badge purchased. Please contact [laboratory@ohio-clc.com](mailto:laboratory@ohio-clc.com) to request an electronic copy of the "Institutional Badge Users Session Selection Worksheet".

**Refunds and Cancellations:**

Full registration fees will be refunded only if a written request is postmarked on or before April 14, 2017. A session may be cancelled if there is insufficient interest from registrants.

**Dietary and Special Accommodations:**

Contact [laboratory@ohio-clc.com](mailto:laboratory@ohio-clc.com) by April 14<sup>th</sup> if you have any special dietary requirements or need special accommodations.

# 2017 Sponsoring Vendors

*Below is a list of our committed partners for the 2017 CLC as of this printing*

American Proficiency Institute  
ARUP Laboratories  
Aureus Medical Group  
Beckman Coulter  
The Binding Site  
Hettich Lab Technology  
Instrument Laboratories:  
    Coagulation  
Labsco (McKesson)  
Luminex Corporation  
Mayo Medical Laboratories  
Meridian Bioscience

Michigan State University:  
    Biomedical Laboratory  
    Diagnostics  
Muskingum University  
Otsuka America  
Quidel  
Randox Laboratories, Inc  
Roche Diagnostics  
Sebia  
SCC Soft Computer  
Siemens Diagnostics  
Sysmex

Additional vendors will be available during the conference.  
Please check out our website for updated listing.

**The organizing committees would like to thank you  
for your support!**

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# 2017 Ohio Collaborative Laboratory Conference

Pam Kin  
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