

# Northwest Medical Laboratory Symposium

**Holiday Inn, Portland Airport  
Portland, OR**

**October 24 - 27, 2018**

**2018  
NWMLS**

**Education, Exhibits, Networking**

**AMERICAN SOCIETY FOR CLINICAL LABORATORY SCIENCE, REGION IX  
ASCLS-WASHINGTON  
ASCLS-OREGON**

**AMERICAN MEDICAL TECHNOLOGISTS, WESTERN DISTRICT  
OREGON STATE SOCIETY OF AMERICAN MEDICAL TECHNOLOGISTS  
NORTHWEST STATE SOCIETY OF AMERICAN MEDICAL  
TECHNOLOGISTS**

***in the Pacific Northwest***

## Welcome to the 2018 Northwest Medical Laboratory Symposium

It won't be long until the leaves on the trees begin showing their glorious fall colors, the temperatures begin cooling off and the prime autumn opportunity for continuing medical laboratory education and professional networking is upon us. The NWMLS committee, composed of medical laboratory professionals from throughout the Northwest, has once again planned a dynamic program. The American Society for Clinical Laboratory Science (ASCLS) and the American Medical Technologists (AMT) invite you to join us in Portland, OR for this year's Symposium October 24 – 27, 2018.

Our clients, patients, and colleagues in the allied health professions rightfully expect and deserve for us, as medical laboratory professionals, to maintain our professional credentials and competency. One means of doing this is to stay abreast of the latest developments in technology and testing. The NWMLS provides an excellent means of accomplishing this responsibility. Seminars covering topics in every aspect of laboratory medicine, from research to testing to management, are provided during this outstanding Symposium.

In addition to educational opportunities, you will not want to miss out on the chance to network with fellow laboratorians. This is your opportunity to gain refreshing encouragement from other medical laboratory professionals who are facing the same issues you face on a day-to-day basis.

The Exhibit Hall is not to be missed. This opportunity to meet laboratory industry vendors face-to-face and learn of the latest technological developments is always a highlight of the NWMLS. The industry representatives are available for you to visit with in a low intensity setting. They are happy to hear and respond to your questions. Please thank them for their continuing support of the NWMLS in the sponsorship of our speakers and breaks.

We extend a warm welcome to our Medical Laboratory Science students as they expand their knowledge, skills, and values in preparation to provide competent and ethical care. This is an excellent opportunity for you to develop a new awareness of the actual practice of clinical laboratory science and meet with scientists who are employed in many different areas and have many different roles that go beyond working in the hospital.

Please seriously consider this sincere invitation to join us at the Holiday Inn, Portland Airport, Portland, OR, for this year's Symposium. We look forward to seeing you there.

Terese Abreu  
Director, ASCLS Region IX

Sheryl Rounsivill  
AMT Western District Councilor

---

***The 2018 Northwest Medical Laboratory Symposium Program and registration form are available on the Internet at the following URL***

***[www.asclswa.org](http://www.asclswa.org)***

***click on the NWMLS link***

***Updates and other information will be provided through this site.***

## 2018 NWMLS At A Glance

<b>Wednesday, October 24</b>	AM	1	2	3	
	8:30 - 11:45 AM	Letting Go of the Rules of Three  Hematology Case Studies  Investigating Hemolysis	Behavior-Based Safety Programs  Laboratory Ergonomics	Anticoagulation: The Lab's Role  Patients with Cardiorenal Syndrome	
	<b>Exhibits: 11:45 AM – 2:15 PM</b>				
	PM	4	5	6	
	2:15 - 5:30 PM	Pre-Analytical Concerns in Blood and Urine Testing	Venous Thromboembolism Thrombocytopenia Testing	Biologics Therapeutic Drug Monitoring  Endocrine Hypertension	
<b>Evening Session</b>	7				
<b>6:00 - 7:30 PM</b>	Opioid Deaths - A Public Health Crisis				
<b>Thursday, October 25</b>	AM	8	9	10	11
	8:30 - 11:45 AM	Molecular Testing at Point-of-Care:	Missions and Microscopes	Moving Hematology Forward  Digital Cell Morphology	Coag for Chemists  Natriuretic Peptides in HF
	<b>Exhibits: 11:45 AM – 2:15 PM</b>				
	PM	12	13	14	15
	2:15 - 5:30 PM	Molecular Multiplex Testing  Musings on the Future of Point of Care Testing	<i>C. Difficile</i> and Influenza Testing	HIV & Hepatitis Diagnostic  Circulating Hormone Biomarkers	Utilize Students Effectively  Prevent the Brain Drain
<b>Evening Session</b>	16				
<b>6:00 - 7:30 PM</b>	A Review of Prenatal Screening Options				
<b>Friday, October 26</b>	AM	17	18	19	20
	8:30 - 11:45 AM	Surviving Instrument Downtime  Creating a Positive Work Environment	CLIA '88: Thirty Years Later  DCLS Programs	Using LEAN to Achieve High Reliability in the Lab	HLA - Playing with Matches  Blood Bank Updates
	<b>Exhibits: 11:45 AM – 1:30 PM</b>				
	PM	21	22	23	24
	1:30 - 4:45 PM	The HLA System in Human Health and Disease	Blood Bank Review	World of Laboratory Practice Validation Surveys Compliance Section Update	Urinalysis with Reflex Syphilis Testing  Consult Cases
<b>Saturday, October 27</b>	AM	25	26		
	8:30 - 11:45 AM	Blood Product Updates  All About ABO	Practical Applications of Quality Control		

# Welcome to the 2018 Northwest Medical Lab Symposium

## Table of Contents

Welcome. . . . .	2
Grid . . . . .	3
Committee and Organizations . . . . .	5
Holiday Inn, Portland Airport . . . . .	6
Columbia Conference Center . . . . .	7
Wednesday Sessions . . . . .	8
Thursday Sessions . . . . .	14
Friday Sessions . . . . .	22
Saturday Sessions . . . . .	29
Sponsors . . . . .	30
Exhibitors and Exhibit Hall Information . . . . .	31
Exhibitor Product List . . . . .	32
Registration Information . . . . .	34
Registration Form . . . . .	35
Membership Categories . . . . .	36
Special Notes . . . . .	37

### Registration Hours

Wednesday, Thursday	7:30 AM - 8:30 AM 1:30 PM - 2:15 PM
Friday	12:30 PM - 1:30 PM
Saturday	7:30 AM - 8:30 AM

### Session Times

Wednesday, Thursday:	8:30 AM - 11:45 AM 2:15 PM - 5:30 PM
Friday	1:30 PM - 4:45 PM
Saturday	8:30 AM - 11:45 AM

### Exhibit Hours

Wednesday, Thursday	11:45 AM - 2:15 PM
Friday	11:45 AM - 1:30 PM

### Lunch

Wednesday, Thursday, Friday	11:45 AM - 12:45 PM
-----------------------------	---------------------

### ***Earn P.A.C.E. contact hours at no charge!***

Obtain the exam in your registration packet or from the exhibit registration desk. Questions can be answered at the various booths in the Exhibit Hall over the three days. You can earn P.A.C.E. contact hours by successfully completing the exam. Turn in the exam at the Exhibits desk for grading and you will receive the session code. Plan to earn these extra CE hours!

## NWMLS Committee

General Chair	Maja Chloupkova
Program	Sharon Laddusaw Iudita Repta Susan Beard Maja Chloupkova Patricia DeTurk Jackie Rice Helen Wand
Exhibits	Brenda Kochis
Registration	Brenda Kochis Edna Anderson Audrey Whitley
Program Design	Brenda Kochis
Finance	Toni Okada Brenda Kochis
Moderators	Louise Isbell
Hospitality	Genaro Hernandez Laura Sage
AV	Susan Beard
Webmaster	Brenda Kochis

## ASCLS - Region IX

Regional Director Terese Abreu

**Region IX Forum** Friday, October 26, 2018  
5:00 - 7:30 PM

### ASCLS-OR

President	Patricia DeTurk
President Elect	Rachelle Barrett
Secretary	Jacqueline Rice
Treasurer	Tiffany Mach
Past President	Ryan Howey

ASCLS-OR Board Meeting  
Friday, October 26, 2018 Follows Region IX Forum

### ASCLS-Washington

President	Leslie Nakagawa
President Elect	
Secretary	
Treasurer	Brenda Kochis
Past President	Shawna Martin

ASCLS-WA Board Meeting  
Friday, October 26, 2018 Follows Region IX Forum

### CLSA

President	Erin Frasher
President Elect	Nathan Schroeder
Secretary	Tony Gregston
Treasurer	Min Soo Park

### Did You Know?

*P.A.C.E. Contact Hours are available for attending the Exhibits. All you have to do is correctly answer 80% of the questions on a quiz that we give you before you go into the Exhibits. The answers to these questions are available at the various booths. And you don't have to rush, since the questions can be answered over more than one Exhibit session.*

*Great way to earn P.A.C.E. contact hours at no charge!*

## Western District of American Medical Technologists Officers and Business Meetings

Western District Councillor Sheryl Rounsivill

### ORSS

President	Louise Isbell
President-Elect	Susan Beard
Secretary	Audrienne Whitley
Treasurer	Edna Anderson

### ORSS

Board Meeting: Wednesday, Oct 24, 7 pm  
Business Meeting: Friday, Oct 26, 5 pm

### NWSSAMT

President	Roxanne Erskine
Secretary	Danielle Rathbun
Treasurer	D'Maurier Barnhart

NWSSAMT Board Meeting and Business Meeting  
To be Determined

# Holiday Inn, Portland Airport



**HOLIDAY INN**  
PORTLAND AIRPORT  
8439 NE Columbia Blvd  
Portland, OR (503) 256-5000



**Exhibit Hall**  
**Columbia Conference Center**  
near the Holiday Inn, Portland Airport

**For all NWMLS Attendees and Exhibitors there is parking at no charge.**

The Hotel will honor the following overnight room rates:

**\$109 for single/quadruple occupancy plus lodging tax**

To make a reservation, there are two options:

- Call the hotel at 503-256-5000 or toll free at 855-642-6271 and ask for the **NW Medical Laboratory group rate** to obtain the conference rates.
- Register on the website. The web address is [NWMLS Hotel Reservation](#) and the group code is NML to obtain the group rates
- Note that these rates are only available until October 7, 2018. After that the hotel reserves the right to charge their standard rate.

# Holiday Inn and Columbia Conference Center



From the South:

Take I-5 North to I-84 East to I-205 North (Portland Airport/Seattle exit 8) to Exit 23B (US 30 West By Pass/ Columbia Blvd). Turn right at the end of the exit, stay in the right lane. Just before the second traffic light turn right onto NE Columbia Blvd.

From South of Wilsonville:

Take I-5 North to I-205 North to Exit 23B (US30 West By Pass/Columbia Blvd.). Turn right at the end of the exit; stay in the right lane. Just before the second traffic light turn right onto NE Columbia Blvd.

From the North:

Take I-5 South to I-84 East to I-205 North (Portland Airport/Seattle exit) to Exit 23B (US 30 West By Pass/ Columbia Blvd.) Turn right at the end of the exit; stay in the right lane. Just before the second traffic light turn right onto NE Columbia Blvd.

From North of Vancouver, WA:

Take I-5 South to I-205 South to Exit 23B (US 30 West By Pass/Columbia Blvd.) Turn right at the end of the exit. Just before the traffic light turn right onto NE Columbia Blvd.

From the West:

Take US 26 East to I-84 East to I-205 North (Portland Airport/Seattle exit) to Exit 23B (US 30 West By Pass/ Columbia Blvd.) Turn right at the end of the exit; stay in the right lane. Just before the second traffic light turn right onto NE Columbia Blvd.

From the East:

Take I-84 West to Exit 9 (Seattle/Portland Airport) to I-205 North to Exit 23B (US 30 West By Pass/Columbia Blvd.) Turn right at the end of the exit; stay in the right lane. Just before the second traffic light turn right onto NE Columbia Blvd.

Airport Shuttle

The Holiday Inn Portland Airport provides complimentary airport shuttle service 24 hours a day, on demand. In the Baggage Claim area, call the hotel. Then walk from the Baggage Claim outside to Area 4 where the shuttle should arrive in 10 to 15 minutes after your call.



## Letting Go of the Rules of Three... And How Not to Let the MCHC Rule Your Life

### Hematology Case Studies: Every Picture Tells a Story

### Investigating Hemolysis in the Clinical Laboratory



- **Jason Anderson, MPH, MT(ASCP)**

Sysmex America, Inc.  
Lincolnshire, IL

The first topic will review the history of the Rules of 3 and discuss why they were introduced into Hematology – and why they need to go away. The speaker will educate the audience as to how modern sheath flow-based hematology analyzers have made the Rules of 3 obsolete and why the RBC Indices are much better indicators of problem samples. Learn what causes abnormal and improbable indices and what to do for resolution.

The second topic will introduce its participants to new advances in automated Hematology cell counting. Case studies will illustrate new technologies designed to enhance detection of normal cells, as well as abnormal cells, in both whole blood and body fluid samples. We will also discuss how enhanced technologies can benefit the patient and clinician, as well as provide efficiency in your hematology workflow.

The third topic will cover the physiology, mechanisms and causes of both intrinsic and extrinsic hemolysis. It will also describe and compare laboratory testing/values (Hematology and Chemistry) in both types of hemolysis as well as help distinguish (via test results) between in-vivo and in-vitro hemolysis. Numerous hemolysis-based case studies and some interesting blood facts will also be reviewed.

- ⇒ Discuss the history of the Rules of 3 and their original purpose in hematology testing, the importance of the RBC Indices and how they are better indicators of problem samples.
- ⇒ Explain how scattergrams and histogram pictures can provide great insight into abnormal hematology samples, describe hematology advanced clinical parameters and list the benefits they provide.
- ⇒ Apply your knowledge of what can cause ‘spurious’ indices and identify alternate methods to resolve the problem.

*Sponsor: Sysmex America, Inc*





---

## **Behavior-Based Safety Programs**

### **Laboratory Ergonomics**

- **Christina Kulakowski**  
ARUP Laboratories  
Salt Lake City, UT

#### Behavior-Based Safety Programs

When most employees think of a company safety program, they think of very restrictive, sometimes unrealistic, and often overboard rules and regulations, focusing on what will get them in trouble if they don't obey. This fear, coupled with the perception that safety is just common sense, limits the ability for a safety program to motivate workforce behaviors and make meaningful improvements to the culture within an organization.

This workshop will summarize basic human behavior, including how most employees, without realizing it, have been conditioned to disregard safety rules and regulations. We will also identify the concepts of a traditional safety program and compare those with the concepts of a behavioral safety program. We will continue the discussion with how to create and maintain a positive safety culture by establishing a behavior-based safety program.

- ⇒ Summarize the basics of human behavior.
- ⇒ Identify the concepts of a traditional safety programs, and the concepts of a behavior based safety program.
- ⇒ Describe how to create and maintain a positive safety culture through a behavior based safety program.

#### Laboratory Ergonomics Programs

Having a strong ergonomics program can help decrease workers compensation claims and improve employees' performance. This workshop will focus on what ergonomics is and why it is an important element of a comprehensive occupational health and safety program. We will review proper workstation setup, as well as laboratory ergonomic work practices and principals with a focus on repetitive tasks such as microscope use, pipetting, and miscellaneous hand tool and computer use. Additionally, we will identify what to include in an ergonomics program—from effective training to ergonomic assessments and everything in between. Additionally, we will discuss specific laboratory case studies and work through problem-solving exercises to identify risk factors in a laboratory setting and how to mitigate the identified risk.

- ⇒ Define ergonomics, describe its impacts in a lab work environment, and discuss components of a comprehensive laboratory ergonomic program.
- ⇒ Identify common symptoms of musculoskeletal disorders (MSDs).
- ⇒ Review steps and changes that can be implemented to reduce injury (MSDs), increase productivity and reduce error rates.

---

## **Anticoagulation: The Laboratory's Role Now and In the Future**

- **Katherine (Katy) Whelchel, MT(ASCP)SH**

Diagnostica Stago  
Rogers, AR

Anticoagulation monitoring is an important part of the Coagulation department's service to its patient population. Coumadin and heparin remain the primary medications; screening tests are still used as monitoring methods. This lecture will focus on direct heparin monitoring and the future of Direct Oral Anticoagulant (DOAC) measurement. We will examine DOACs, their effect on coagulation assays, and how best to measure them.

- ⇒ Discuss assays and approaches for monitoring unfractionated heparin (UFH).
- ⇒ List reasons for discordant aPTT and UFH assays and present methods for determining a PTT heparin therapeutic range.
- ⇒ Provide overview of outcomes and pharmaeconomic studies comparing aPTT to Anti-Xa based assays.

---

*Sponsor: Diagnostica Stago*

---

## **Clinical and Diagnostic Testing of Patients with Cardiorenal Syndrome**

- **Monet N. Sayegh, MD, MS, BS, MT(ASCP)SH, CLS**

Siemens Healthineers  
Los Angeles, CA

The layout of this talk begins with an explanation of the concept of the Cardiorenal syndrome (CRS). Rather than calling it a disease, it is named a syndrome, because several at-the-time unrelated symptoms tend to cluster together. Whereas a disease has a clean and clear explanation of pathophysiology, the understanding of this syndrome is seemingly quite complex. We will look at how we define the syndrome, what types there are, and what is known about the underlying pathophysiology.

The burden of diseases that are part of the CRS and their overlap is tremendous and this aspect will be reviewed. We will also review the current guidelines for diagnostics by the ADA and by the KDOQI guidelines. Since CRS is a complicated condition, we will discuss case studies that can help us to connect the guidelines with real-life applications within real-life patients.

- ⇒ Discuss the pathophysiology of Cardiorenal Syndrome.
- ⇒ Review the current American Diabetes Association and The National Kidney Foundation Kidney Disease Outcome Quality Initiative guidelines.
- ⇒ Outline knowledge learned to figure out presented case studies.

---

*Sponsor: Siemens Healthineers*

---

**Visit the Exhibits**

---

*Session 4*      *2:15-5:30 pm*      *Intermediate*      *3 contact hours*

---

## **Pre-Analytical Concerns in Blood and Urine Testing: Best Practices and Leveraging Technology to Improve Sample Quality**

- **Jean Tenuta, MS, MBA, MT(ASCP)DLM, SLS, CQA(ASQ)**  
Becton, Dickinson and Company  
Kenosha, WI

Studies show that 75 percent of erroneous results reported occur in the pre-analytic phases. This session will explore what laboratorians can do to procure samples that most accurately reflect a patient's clinical status, while adhering to the pressures of minimizing turnaround time and improving the patient experience and outcomes.

- ⇒ Describe the factors that impact sample quality.
- ⇒ Discuss the impact on costs and patient outcomes when testing is delayed.
- ⇒ Compare current laboratory practices to best practices, and determine if changes are necessary.

---

*Sponsor: Becton, Dickinson and Company*

---

---

*Session 5*      *2:15-5:30 pm*      *Intermediate*      *3 contact hours*

---

## **Unwanted Blood Clots: Venous Thromboembolism Screening and Diagnosis, and Heparin-Induced Thrombocytopenia Testing**

- **Paul Riley, MD, PhD**  
Diagnostica Stago, Inc.  
Parsippany, NJ

D-dimer assays are most useful when demonstrated to have high clinical sensitivity to detect all patients with venous thromboembolism (VTE). This presentation will not only cover the clinical impact of VTE but it will also discuss how D-dimer, pretest probability, and utilization may potentially save healthcare dollars by preventing false positives, resulting in fewer unneeded imaging procedures.

In addition, heparin-induced thrombocytopenia (HIT) is a dangerous thrombotic condition associated with heparin anticoagulant therapy. The presentation will cover HIT screening and diagnosis best practices, showing how the hospital lab can help to prevent serious complications associated with this disorder, as well as more effectively utilize monetary spending on alternative anticoagulants.

- ⇒ Define and differentiate DVT, PE and VTE.
- ⇒ Describe PE prevalence, risk factors, mechanism of disease, symptoms, and clinical decision rules for risk stratification.
- ⇒ Explain the role of clinical decision rules and D-dimer in the diagnostic algorithm and their impact on imaging utilization, and also identify and discuss best practices and diagnostic tests for HIT.

---

*Sponsor: Diagnostica Stago, Inc.*

---

---

## **Biologics Therapeutic Drug Monitoring**

- **Kelly Chun, PhD**  
Esoterix, Labcorp  
Calabasas, CA

Biologic drugs (therapeutic proteins) have revolutionized the medical care of patients with inflammatory bowel disease and rheumatoid arthritis. The specialized laboratory plays a critical role in optimizing the use of these costly therapies by providing both drug and anti-drug antibody concentrations. These assays allow physicians to personalize dosing and make other critical medical decisions. Ultimately, TDM improves clinical efficacy and longevity of biologic treatment. This talk will outline key concepts necessary to understanding this area of specialized therapeutic drug monitoring.

- ⇒ Describe what is Biologic TDM.
- ⇒ Discuss how it differs from conventional TDM.
- ⇒ Describe how physicians use TDM results to guide clinical decisions.

---

*Sponsor: Esoterix, Labcorp*

---

## **Endocrine Hypertension**

- **Donald Walt Chandler, PhD**  
LabCorp  
Calabasas, CA

Hypertension affects about 1/3 of adult Americans with a conservative definition. While hypertension is common the outcomes are dangerous. In a study of over 1 million subjects reported in 2014 systolic and diastolic were associated with increased risk of CVD incidence and angina, myocardial infarction (MI), HF, stroke, peripheral artery disease (PAD), and abdominal aortic aneurysm.

Primary, idiopathic or essential hypertension accounts for the vast majority of cases. Essential hypertension is usually treated medically with one or more agents. Treatment is often effective, but for most patients there is no definitive cure known. However about 5 of cases have etiologies related to endocrine disease, and some of these are curable.

- ⇒ Discuss the prevalence of Endocrine hypertension and outline the clinical signs for case discernment according to the Endocrine Society guidelines.
- ⇒ Discuss the etiology of primary aldosteronism and the screening test.
- ⇒ Describe the symptoms and the laboratory tests for pheochromocytoma and paraganglioma.

---

*Sponsor: LabCorp*

---

**Evening Session**

## **Opioid Deaths - A Public Health Crisis**

- **David K Roberts, PhD**  
Legacy Laboratory Services  
Portland, OR

Opioid deaths are now the nation's number one public health concern surpassing automobile deaths. We will explore an array of "who done its" to include pharmaceutical companies, hospitals, physicians, criminals and patients. The talk will include the chemical nature of opioids and their families. We will also explore how opioids cause intoxication and death. Lastly, we will touch on what labs and citizens can do to help address this tragedy.

- ⇒ Describe how the opioid public health crisis came to be.
- ⇒ Discuss opioid pharmacology and opioid families.
- ⇒ Outline how labs and citizens can assist in addressing the opioid epidemic.

*Sponsor: Legacy Laboratory Services*



No conference would be complete without a meeting app. The NWMLS has an App for this meeting.

### **EventsXD**

This App will work on any mobile device and is a great resource for planning your sessions. Download the Events XD App from your app store; works on Apple and Android devices. Use the search term "Lab" and you will easily find the Northwest Medical Lab Symposium.

Plan a schedule that is  
**UNIQUELY YOU**

*Session 8*

*8:30-11:45 am*

*Intermediate*

*3 contact hours*

## **Molecular Testing at Point-of-Care: If It Is CLIA-Waived, Nothing Can Go Wrong. . .Right?**

- **Norman Moore, PhD**

Abbott Rapid Diagnostics  
Scarborough, ME

Overuse of antibiotics is a significant global crisis. To help change prescribing habits, better diagnostics are needed at the point-of-care setting. This talk will discuss the pros and cons of newer technologies and apply them to certain disease states.

CLIA-waived tests are considered by the FDA to be simple to perform with low risk for incorrect results. However, no test is infallible. Care must be taken to take the clinical samples appropriately and run the tests per package insert instructions. Additionally, no test has perfect sensitivity and specificity. This talk will go through issues that can affect results with these tests.

- ⇒ Describe newer technologies that amplify nucleic acid for diagnostic detection.
- ⇒ Explain how molecular testing applies to particular disease states.
- ⇒ Describe how sample collection can affect test results, and list common errors people can make running CLIA-waived tests.

*Sponsor: Abbott Rapid Diagnostics*

*Session 9*

*8:30-11:45 am*

*Intermediate*

*3 contact hours*

## **Missions and Microscopes**

- **Heidi M. Wahlquist, MLS (ASCP)CM, MHM**

Kaiser Permanente  
Hillsboro, OR

Discussion of a medical technologist on a medical mission trip is the focus of this session. Over the past 4 years traveling to rural Guatemala for a medical mission trip, I've learned what a medical technologist can do in the field that is beneficial to patients, and how we can make a difference in the care provided. The session will cover the experiences I've had, what I bring to the lab, and the value of providing a clinical laboratory on medical mission trips in rural areas.

- ⇒ Discuss the laboratory you can have in a rural setting.
- ⇒ Describe the value of a medical technologist on a medical mission trip.
- ⇒ Describe opportunities for medical technologists to go on medical mission trips.

---

## **Moving Hematology Forward**

- **Kathy Davidson Altig, BS, MT(ASCP)**  
Beckman Coulter, Inc  
West Linn, OR

Hematology is no longer just counting cells. This session will help you understand what other information our automated hematology instruments can provide for us.

- ⇒ Describe the history of Hematology.
- ⇒ Discuss Hematology technology.
- ⇒ Identify where future of Hematology is going.

---

*Sponsor: Beckman Coulter, Inc*

---

## **Digital Cell Morphology and Advanced RBC Software with Relevant Case Studies**

- **Scott Dunbar, BS, MS**  
CellaVision  
Flower Mound, TX

This presentation will demonstrate how artificial neural networks can standardize a very subjective area of the laboratory, the Differential Bench. This will cover WBC and RBC Morphology and Differentials with relevant esoteric case studies.

- ⇒ Discuss how artificial neural networks can standardize morphology.
- ⇒ Describe how Advanced RBC Software can streamline consistent reporting in RBC blood films.
- ⇒ Convey how remote review software can improve turnaround time.

---

*Sponsor: CellaVision*

---





## Coag for Chemists

- **Kevin Foley, MT, PhD, DABCC**  
Kasier Permanente NW  
Fairview, OR

This section re-explains clinically-relevant coagulation tests from a clinical perspective. It is meant to remove the fear-factor (pun intended) that many of us, who were trained long ago, now associate with coagulation testing. The session will present an overview of the differences between common coagulation tests and when they are used clinically. Several case studies will also be presented.

- ⇒ Describe the differences between PT, PTT, ACT, D-dimer and platelet function testing.
- ⇒ Describe antiphospholipid syndrome and discuss the relevance of Protein S & C testing, Factor 5 Leiden, and Factor X activity assays.
- ⇒ List products given to those in hypo-coagulable states.

## Natriuretic Peptides and Sacubitril/Valsartan in the Management of Heart Failure

- **Monet N. Sayegh, MD, MS, BS, MT(ASCP)SH, CLS**  
Siemens Healthineers  
Los Angeles, CA

Understanding the function of natriuretic peptides (BNP and NT-proBNP), both as a cardiohormone and as a clinical test, is important in the diagnosis and management of cardiovascular disease. Clinical utility of BNP and NT-proBNP testing has had tremendous impact for medical professionals involved in Heart Failure (HF) and Acute Coronary Syndrome (ACS) patient care. This seminar presents current applications of BNP and NT-proBNP assays that both demonstrate a high degree of diagnostic accuracy and clinical relevance for both acute and chronic heart failure.

- ⇒ Describe the in-vivo production and physiologic role of natriuretic peptides.
- ⇒ Describe the current clinical utility of BNP and NT-proBNP testing for diagnostic and prognostic applications in HF and ACS.
- ⇒ Describe the drug Sacubitril/Valsartan(ENTRESTO) mechanism of action and its impact on natriuretic peptides.

*Sponsor: Siemens Healthineers*

### Exhibits

Did you get to all the companies in the Exhibit Hall?

Don't forget to work on your Exhibit Hall Exam. A great opportunity to earn contact hours for your effort!

## **Molecular Multiplex Testing in Microbiology**

- **Kendall Bryant, PhD, D(ABMM)**  
Northwest Kaiser Permanente  
Portland, OR

We will discuss the current trends for molecular multiplex testing for infectious disease organisms. The advantages and pitfalls of multiplex testing will be examined, as well as the strategy to optimally utilize the multiplex testing.

- ⇒ Describe the multiplex testing available for infectious disease testing.
- ⇒ Discuss the advantages and disadvantages of multiplex testing in the microbiology lab.
- ⇒ Outline how to utilize molecular multiplex testing in a cost effective way.

## **Musings on the Future of Point of Care Testing**

- **Kevin Foley, MT, PhD, DABCC**  
Kaiser Permanente NW  
Fairview, OR

This will be a broad talk on the current and future state of point of care testing. Audience participation is expected in an effort to share best practices and stories related to POC compliance and new testing platforms. This talk will be a discussion on how we think POC testing will evolve in coming years.

- ⇒ Name some key innovations and tests that will be available at the POC in the next three years, and trends in lab staffing, test development, and physician ordering practices that will influence how laboratory testing is done.
- ⇒ Compare and contrast the spoke-and-hub model of lab testing versus the 'island' model.
- ⇒ Share experiences and best practices concerning POC compliance and management, especially with regard to provider-performed microscopy.



## **The Current Status of *C. Difficile* Testing and Influenza Testing**

**- Norman Moore, PhD**

Abbott Rapid Diagnostics  
Scarborough, ME

*Clostridium difficile* may cause anything from asymptomatic colonization to significant diarrhea and even pseudomembranous colitis. It is quite often acquired in healthcare environments when patients are put on antibiotics that subsequently disrupt the intestinal microflora. This lecture covers the latest guidelines and data on diagnostic methodologies.

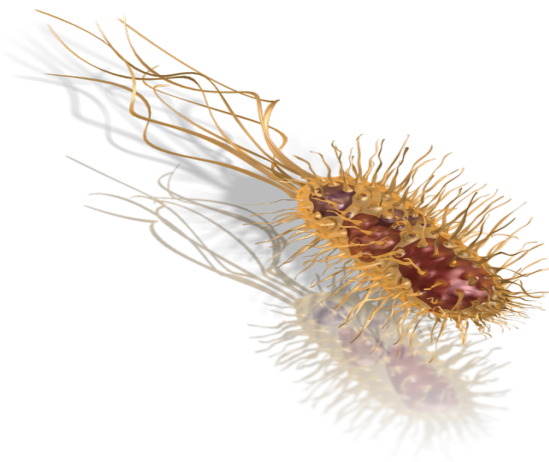
Influenza outbreaks happen yearly. The variety of strains makes predicting the severity of the season or the efficacy of the vaccine difficult. Early diagnosis can help differentiate influenza from pneumonia so appropriate therapy can be given.

- ⇒ Define the medical significance of *C. difficile* infection.
- ⇒ Discuss the latest medical guidelines for *C. difficile* testing.
- ⇒ Understand the medical impact of influenza and outline the latest diagnostic options available for influenza.

---

*Sponsor: Abbott Rapid Diagnostics*

---



---

## **Current Concepts in HIV & Hepatitis Diagnostics**

- **Jared Jaeger, PhD**

Ortho Clinical Diagnostics  
Raritan, NJ

This session provides attendees with an overview of laboratory tests used to aid physicians in the diagnosis of HIV & Viral Hepatitis A/B/C. The importance of analytical sensitivity as it relates to patient seroconversion will be reviewed. We will explain the difference in available HIV assays and define and discuss various causes of Viral Hepatitis. We will also discuss the CDC Guidelines for HIV and Hepatitis screening.

- ⇒ Explain how assay analytical sensitivity relates to patient seroconversion, and define the difference between clinical sensitivity and specificity.
- ⇒ Describe CDC algorithm for HIV testing and the importance of detection of various HIV-1 antigen genotypes.
- ⇒ Describe CDC guidelines for Hepatitis C screening and discuss the difference in available Hepatitis assays.

---

*Sponsor: Ortho Clinical Diagnostics*

---

## **Circulating Hormone Biomarkers Levels in Response to Modern Day Stressors**

- **Ryan E Brown, MS, MLS**

Oregon Institute of Technology  
Wilsonville, OR

The modern human has an ever-increasing amount of stress and expectation imposed by both society and themselves. These expectations we impose upon ourselves come with a cost to both our bodies and mind. Given time, these stress responses can develop into pathology, loss of quality of life, and in the most extreme circumstances, the taking of one's life. Traditionally, we have taken methods developed by the social sciences to proactively intervene in the lives of people whose stress has become too overwhelming. But what if we can also couple these methods with empirical data? What if we can develop an understanding of stress hormones to quantify a person's stress, and therefore mitigate any chances of pathology manifesting? More specific and sensitive hormone assays have now evolved to allow us to further develop reference ranges with more specific applications. One of these applications could be to assess whether a person's level of stress is potentially harmful to their health. If we can help mitigate patients stress and improve quality of life by testing something as simple as cortisol or epinephrine, why not make it a part of the routine testing landscape?

- ⇒ Describe the role of stress hormone levels in pathology.
- ⇒ Identify potential risk factors for anxiety and depression using stress hormone levels.
- ⇒ Utilize population health statistics to identify at-risk populations.

---

*Sponsor: Oregon Institute of Technology*

---

## How to Utilize Students Effectively in the Workplace

- Dawn Taylor, EdM, MT(ASCP)
- Caroline Doty, MS, MLS(ASCP)
- Rachelle Barrette, MLS(ASCP), SBB  
Oregon Institute of Technology / OHSU  
Wilsonville, OR

In this segment we will provide tips and hints for using students to improve productivity in a busy workplace. Let student workers (unpaid labor) be a help to under-staffed workplaces instead of a burden.

- ⇒ Discuss laboratory productivity.
- ⇒ Describe effective training activities for students and staff.
- ⇒ List non-productive activities students can perform to assist with quality practices in the laboratory.

## How to Prevent the Brain Drain: Download and Transfer the Knowledge of Experienced Laboratory Professionals

With the current turnover rate of laboratory personnel, there is an increasing need to retain the knowledge of seasoned professionals. We will discuss methods for transferring expertise to newbies and those still working in the laboratory.

- ⇒ Describe methods to transfer tacit knowledge.
- ⇒ Recognize individual tacit knowledge and plan ways to transfer that knowledge to future laboratory professionals.
- ⇒ Develop an institutional strategy to capture employee expertise.

---

*Sponsor: Oregon Institute of Technology / OHSU*

---



**Evening Session**

## **A Review of Prenatal Screening Options**

- **Danelle Beaudoin, PhD**  
Legacy Laboratory Services, LLC  
Portland, OR

Prenatal screening in serum and amniotic fluid has been detecting potential birth defects and chromosomal abnormalities for greater than twenty-five years. This presentation will consider the clinical and analytical implications for both first and second trimester screening as it relates to Down syndrome, Trisomy 18, and open neural tube defects. Quality assurance will be briefly discussed as it relates to bringing this testing in-house. Finally, emerging molecular technologies and new screening techniques will be reviewed and compared to other non-molecular testing.



- ⇒ Describe how biochemical and ultrasound markers are used to screen for open neural tube defects and determine Down syndrome risk in First and Second Trimester prenatal screening.
- ⇒ Review new molecular-based approaches for screening.
- ⇒ Compare the performance of molecular versus non-molecular testing approaches.



## Surviving Instrument Downtime

### Creating a Positive Work Environment in The Clinical Lab Workforce

- **Tina J. Batsch MT (ASCP)**  
Newport Hospital and Health Services  
Newport, WA

If you ever have worked in a lab, chances are you have experienced instrument downtime. This session will begin with an example of a worst-case scenario result of an instrument being down. Next, back up and work round procedures will be discussed. Finally, a look at the aftermath and how instrument downtime affects the areas of billing and coding, result reporting, and the impact it had on the budget will be reviewed.

Staffing turnovers, working within budget constraints, and lack of communication can lead to burnout and negativity in the workplace. This session will provide ways to overcome staffing shortages and avoid high agency placement rates by discussing restructure in workflow. This session will also discuss working and bridging the generation gaps as more and more Millennials enter the workforce.

- ⇒ List preplanned tactics that can aid in making downtime more manageable.
- ⇒ List efforts that can help bridge the communication gaps between generations.
- ⇒ Describe the characteristics of several generations.

---

*Sponsor: Newport Hospital and Health Services*

---





## **CLIA '88: Thirty (30) Years Later**

**- Francisca Lehr, MSMT**

Lehr Science, LLC  
Bothell, WA

This session is about the Clinical Laboratory Improvement Amendments (CLIA) program administered by the Centers for Medicare & Medicaid Services (CMS). The objective of the CLIA is to ensure quality laboratory testing. The presenter has been inspecting clinical laboratories nationally and internationally for thirty (30) years, and will talk about the inception of CLIA to the present time. She will also discuss the national laboratory universe and top ten deficiencies in the nation including those seen in Washington and Oregon states. Other topics will include: Quality Systems Regulations, Test Categorizations, Quality Control (IQCP), Personnel Requirements, Certificate of Waiver (COW) study, Food and Drug Administration (FDA), Laboratory Registry, and Alaska's Provider and Performed Microscopy Procedures (PPM) outreach. About twenty to thirty minutes are set aside allowing participants to discuss any laboratory issues they are having.

- ⇒ Discuss the purpose of the CLIA program.
- ⇒ Describe the various areas covered under the CLIA program.
- ⇒ Describe the importance of the CLIA program.

## **DCLS Programs: What Is It, Who Is It For, Where Are The Programs Located, Why Would An Organization Need This, and How Are Organizations Utilizing These Practitioners?**

**- Jennifer Hayes, MLS (ASCP)CM**

Oregon State Hospital  
Salem, OR

The evidence of need and the desire of many medical laboratory scientists to further their education was the driving force for the creation of the Doctorate of Clinical Laboratory Science (DCLS) program. The DCLS program is now picking up steam, but what exactly is a DCLS and how is it used? This session will dive into the programs offered and what DCLS graduates can expect upon completion.

- ⇒ Identify what a DCLS practitioner is, what they can do in different settings, and the requirements for entry into a DCLS program.
- ⇒ Discuss different programs currently being offered.
- ⇒ Describe the benefits of adding a DCLS practitioner to an organization, and describe the many different areas that have been impacted by DCLS practitioners.

## **Using LEAN to Achieve High Reliability in the Laboratory**

- **Karl E. Kamper, MT(ASCP), FACHE**  
Willamette Valley Medical Center  
McMinnville, OR

Zero Events of Harm... this statement defines the goal of every Highly Reliable healthcare organization. This seminar looks at LEAN tools and applies them to the laboratory. If you have ever wanted to understand LEAN, this hands on seminar is just for you. (Yep, we are going to break out the Legos, and have some fun.)

Whether you are a beginner, or a seasoned expert, this seminar will reignite your passion for quality at the source, standard work, eliminate waste and help your laboratory achieve its goals in a culture of high reliability.

- ⇒ Describe the basics of High Reliability in healthcare.
- ⇒ Describe basic LEAN tools and principles.
- ⇒ Apply LEAN principles to their workplace.

*Sponsor: Willamette Valley Medical Center*



### **Comments From Past Seminar Attendees About The NWMLS**

*Knowledgeable, interactive, fun, good speakers, takes lots of questions. Enjoyed and learned a lot.*

*Really enjoyed this. Love the enthusiasm and passion for the topic. Very interesting and exciting.*

*Great speakers, lots of new info. Updates. These are the kinds of speakers we need. They explain current and new information. Speaker provided many helpful examples.*

## **HLA - Playing with Matches**

- **Shonna Sims, MBA**  
American Red Cross  
Portland, OR

Finding platelets for a patient who has formed antibodies to Human Leukocyte Antigens (HLA) can be a difficult task. Once HLA antibodies have been identified, selecting the appropriate platelet for transfusion, quickly, is important. This session will present an overview of the HLA system and antibody formation, as well as facilitate an understanding of the challenges of matching donor platelets to patients. The methodologies for HLA antibody identification will be presented, exploring difficulties encountered during testing, such as prozone effect and platelet specific antibody incompatibility.

- ⇒ Describe how to recommend options for refractory patient support.
- ⇒ Describe the testing required for a refractory patient investigation.
- ⇒ Discuss the complexities of HLA selected platelet procurement.

## **A Cornucopia of Blood Bank Updates**

- **Jeanne Scott, MT(ASCP)SBB**  
American Red Cross, Pacific Northwest  
Portland, OR

This session will cover a myriad of blood bank topics including blood products used for massive transfusion protocols, platelet apheresis products, “jumbo” plasma and liquid plasma. We will also cover some new monoclonal antibody therapy drugs that can interfere with blood bank testing.

- ⇒ Discuss “new” blood products being used in massive transfusion protocols.
- ⇒ Discuss “new” apheresis platelet products and how they are made.
- ⇒ Discuss monoclonal antibody therapy treatments that may interfere with blood bank testing.

*Sponsor: American Red Cross*

**Don't Forget!**  
**Visit the Exhibits**  
**11:45 AM to 1:30 PM**  
Get free contact hours P.A.C.E. by completing an exam at the Exhibit  
Hall

---

*Session 21*      *1:30-4:45 pm*      *Intermediate*      *3 contact hours*

---

## **The HLA System in Human Health and Disease**

- **Paul Warner PhD, MT(ASCP), D(ABHI)**  
Bloodworks Northwest  
Seattle, WA

The Human Leukocyte Antigen (HLA) system is the most polymorphic genetic system ever described in humans. This session will be divided into three distinct topics:

1) A description of the HLA system, including its pivotal role in shaping and driving adaptive immune responses.

2) How HLA testing is utilized in solid-organ transplantation.

3) How HLA testing is utilized in transfusion support (i.e. immune-refractory platelet recipients) and disease association/pharmacogenomics.

- ⇒ Briefly describe the “natural” function of the HLA system.
- ⇒ Explain how HLA testing is important in solid-organ transplantation.
- ⇒ Describe a few examples of HLA testing as it relates to disease associations or drug hypersensitivity reactions.

---

*Sponsor: Bloodworks Northwest*

---

---

*Session 22*      *1:30-4:45 pm*      *Intermediate*      *3 contact hours*

---

## **Blood Bank Review for Non-Blood Bankers**

- **Terese Abreu, MA, MLS(ASCP)CM**  
Heritage University  
Yakima, WA

This blood bank review is for those of you who have not stepped foot in a blood bank section since becoming certified. Refresh your memory and learn about new developments while we walk down memory lane with ABO, Rhesus, those naughty Kidds and Lewis, just to name a few. We will review basic theory and some technical information, then try our hand at the fun stuff - solving antibody ID panels.

- ⇒ State the immunoglobulin class for the major blood group antibodies and their reaction phase.
- ⇒ List the blood groups that can show dosage.
- ⇒ Given antibody reactions with screen and panel cells determine the antibody specificity.

## **The World of Laboratory Practice: Qualifying Educationally According to CLIA or Who Can (or Can't) Do What?**

**- Lisa G. Countryman MPH, CLS(CA), MLS(ASCP)**

Oregon Health Authority, Hillsboro, OR

This session will cover the CMS regulatory guidelines qualifying individuals for specific roles in the Clinical Laboratory in all phases of Clinical Laboratory. These roles can be performed in all phases of Clinical Laboratory testing from Certificate of Waiver to High Complexity testing, and include individuals with various degrees: MDs, PhDs, MS, BS, RNs, and HS graduates. Clarification will be given regarding education and required experience for personnel titles including Laboratory Directors, Clinical Consultants, Technical Supervisors, Technical Consultants, General Supervisors and Testing Personnel.

- ⇒ Assess potential personnel regarding CLIA regulations for specific job positions with their laboratory.
- ⇒ Discuss the difference in the requirements for education and experience among the three different types of CLIA certificates.
- ⇒ Describe how to be compliant with CLIA regulation regarding educational qualifications when hiring, changing, or promoting laboratory personnel.

## **Validation Surveys of Laboratories, Certificate of Accreditation and Certificate of Compliance**

**- Eric V. Espinosa, BSCE. BSS(ASCP)**

Oregon Health Authority, Hillsboro, OR

This session will cover CMS regulatory guidelines involving validation surveys for laboratories that have a Certificate of Accreditation or Certificate of Compliance. We will cover why validation surveys are performed, and answer the questions: What is a validation survey? How often is validation survey done? We will discuss the difference between the two types of validation surveys. Finally we will talk about what happens if deficient practices were found during the survey process, and how to respond.

- ⇒ Describe why validation surveys are performed.
- ⇒ Outline the difference between the two types of validation surveys.
- ⇒ Discuss how to respond to the deficient findings

## **Oregon State Agency/Laboratory Compliance Section Update**

**- Stephanie B. Ringsage, BS, MT(ASCP)**

OHA Oregon State Public Health Lab, Hillsboro, OR

This session will provide a brief overview of the Oregon Health Authority and the Oregon Public Health Division with a focus on the Laboratory Compliance Section. Also discussed will be an update of the clinical laboratory testing within the state governed by the federal and state regulations. We will tell you how to contact the Laboratory Compliance Section for laboratory questions and concerns

- ⇒ Describe the scope of oversight the Laboratory Compliance Section is responsible for in Oregon.
- ⇒ Outline different types of clinical laboratory programs governed by federal and state regulations, and the specific requirements for each.
- ⇒ Discuss the ultimate goal is to achieve and maintain sustainable laboratory compliance to ensure quality laboratory testing for optimal patient care and assessment of health.

## **Urinalysis with Reflex to Urine Culture - To Do or Not to Do?**

**- Margret Oethinger, MD, PhD (ABPath-MM)**

Providence St. Joseph Health  
Portland, OR

Many clinical laboratories offer the test called “urinalysis with reflex to urine culture”. This reflex test primarily helps our patients, because we only perform a laboratory test if it’s indicated. This means the order to perform urine culture that would otherwise needed to be added on will not be missed. There are several problems associated with this reflex test. First, there are no national or international guidelines available. Second, which criteria should we use to determine whether urinalysis should reflex to urine culture? Can we use epithelial cells as indicator of the quality of urine specimen? Should we reflex catheter urines? We will discuss these and other topics surrounding the UA with reflex to culture test.

- ⇒ Describe the different components of urinalysis and UA terminology.
- ⇒ Discuss the controversial nature of the test “urinalysis with reflex to urine culture,” and summarize the rationale for and against this reflex test.
- ⇒ Describe what the term CA-UTI means.

## **Syphilis Testing: Reverse Algorithm**

**- La’Tonzia L. Adams, MD, MS**

VA Portland Health Care System  
Portland, OR

In this session we will discuss the reverse and traditional algorithms of syphilis testing.

- ⇒ Discuss syphilis and its current epidemiology status.
- ⇒ Outline the traditional and reverse algorithm for syphilis diagnostics.
- ⇒ Describe the benefits and limitations of each approach.

## **Consult Cases in Microbiology**

**- Margret Oethinger MD, PhD (ABPath-MM)**

Providence St. Joseph Health  
Portland, OR

**- La’Tonzia L. Adams, MD, MS**

VA Portland Health Care System  
Portland, OR

The phone keeps ringing all day. We know them all: Questions - From rare to run-of-the-mill, cryptic to straightforward, trivial to really complicated! This session will have two parts. In part 1 two Clinical Microbiology Directors will go over all kinds of questions that are from real case examples. In part 2, we would like to encourage the audience to bring their own examples of noteworthy questions they came across. This part should be interactive.

- ⇒ Describe some of the most common inquiries that microbiologists are asked in their daily work.
- ⇒ Discuss the basic principles that we follow for antimicrobial susceptibility testing in bacteriology because this topic is high on the list of questions of our clinicians.
- ⇒ Outline examples of questions they are frequently asked, and share the answers for the benefit of all of us.

---

*Session 25      8:30-11:45 am      Intermediate      3 contact hours*

---

## **Blood Product Updates**

- **YanYun Wu, MD, PhD**  
Bloodworks  
Seattle, WA

This session will include a description of blood products and their uses. We will discuss updates on new products and their application and clinical significance.

- ⇒ List blood products and their uses.
- ⇒ Discuss updates in blood products.
- ⇒ Review blood product applications and clinical significance.

## **All About ABO**

This session will include a discussion of ABO transfusion practice including ABO related testing and related transplantation practice.

- ⇒ Discuss “ABO” as it relates to transfusion practice.
- ⇒ Describe ABO related testing.
- ⇒ Review ABO as it relates to transplantation practice.

---

*Sponsor: Bloodworks*

---

---

*Session 26      8:30-11:45 am      Intermediate      3 contact hours*

---

## **Practical Applications of Quality Control**

- **Michael Toyoshima, MT(ASCP), SC**  
Bio-Rad Laboratories  
Irvine, CA

This lecture presents a practical overview of basic concepts in quality control. It provides an examination of some creative applications of QC in the lab. The lecture also addresses some of the more common quality control problems that laboratory professionals face on a daily basis. We will discuss reagent crossovers, and how to deal with changes in QC and/or patient values. Seminar participants will be able to describe and properly use Westgard Rules. The presentation will also focus on interpretation of QC reports, using CVR (Coefficient of Variation Ratio) and SDI (Standard Deviation Index) to pinpoint areas of increased random or systematic error. This seminar is recommended for any individual that deals with Quality Control in the laboratory.

- ⇒ Describe steps necessary to develop quality control ranges, and define Westgard rules and how to apply them.
- ⇒ Discuss use of CVR and SDI to estimate imprecision and bias.
- ⇒ Describe new areas of quality control applications - microbiology, blood bank, infectious disease testing.

---

*Sponsor: Bio-Rad Laboratories*

---



# **Our Awesome Sponsors**

The 2018 Northwest Medical Laboratory Symposium would like to extend its sincere thanks to the following companies and organizations for their support.



***Abbott Rapid Diagnostics***  
***American Red Cross***  
***ARUP Laboratories***  
***Beckman Coulter, Inc.***  
***Becton, Dickinson and Company***  
***Bio-Rad Laboratories***  
***Bloodworks NW***  
***Cellavision***  
***Diagnostica Stago***  
***Esoterix/LabCorp***  
***LabCorp***  
***Legacy Laboratory Services***  
***Luminex Corporation***  
***Newport Hospital and Health Services***  
***Oregon Institute of Technology***  
***Ortho Clinical Diagnostics***  
***Siemens Healthineers***  
***Sysmex America, Inc.***  
***Willamette Valley Medical Center***

# EXHIBITORS & EXHIBIT HALL INFORMATION

The leading manufacturers and distributors will once again gather in the Exhibit Hall at the Columbia Conference Center to display their wares. This will be the 33rd year they have participated in the Northwest Medical Laboratory Symposium to provide access for Clinical Laboratorians to the newest products and to demonstrate the ability for aiding in the diagnosis and health care of the public. In addition, some companies will be bringing their demonstration van to display their larger pieces of equipment.

The vendors and their representatives are an integral part of our meeting and provide sponsorship for the continuing education sessions and other activities during this meeting. It is with the help and support from the laboratory supply companies that a volunteer group of individuals from the professional societies are able to arrange this Symposium.

As laboratory professionals, you do not have to register for the Symposium in order to view the displays in the Exhibit Hall. When you come to the Exhibit Hall, sign in on the log sheets and pick up a name badge and join the Committee in thanking the vendors for their support. The following companies have registered for space. For the latest information, please visit the vendor websites. Links may be found at [www.asclswa.org](http://www.asclswa.org), click on "NWMLS" link, then on "Exhibits".

Abbott Diagnostics	Hettich Lab Technology
Abbott Rapid Diagnostics (ARDx)	InPhase Scientific / Nikon
ALCOR Scientific	Instrumentation Laboratory
American Red Cross	Legacy Laboratory Services
ARUP Laboratories	Luminex Corporation
AUDIT MicroControls	Mayo Medical Laboratories
Beckman Coulter	McKesson Lab Solutions
Becton Dickinson	MEDTOX Diagnostics, Inc.
Bio-Rad Laboratories	Oregon Institute of Technology/OHSU
Bloodworks	Ortho Clinical Diagnostics
Central Welding Supply	PlatinumCode
Cepheid	Radiometer America
Clinical Genomics	RALS Connectivity for POCT (Abbott)
Delivery Express, Inc	Randox Laboratories Ltd
DiaSorin, Inc	Roche Diagnostics
DiaSorin Molecular	Samaritan Health Services
Drucker Diagnostics	Sarstedt, Inc.
General Water Technologies	Siemens Healthineers
GenMark Diagnostics	Stago
Global Focus Marketing and Distribution	Sysmex America
/ Immuno Concepts	Thermo Fisher Scientific
Greiner Bio One	Tosoh Bioscience
Hardy Diagnostics	University of Washington
HemoCue America	WSLH Proficiency Testing

---

## EXHIBIT HOURS

Wednesday, October 24	Exhibit Opening	11:45 AM – 2:15 PM
Thursday, October 25		11:45 AM – 2:15 PM
Friday, October 26	Exhibit Closing	11:45 AM – 1:30 PM

# EXHIBITOR PRODUCT LIST

List is updated as more companies sign up to exhibit. Check the website, [www.asclswa.org/](http://www.asclswa.org/)  
For Exhibit Information contact Brenda Kochis, Email: [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net)

Exhibitor	Products
<b>Abbott Diagnostics</b>	Alinity Chemistry Alinity Immunoassay
<b>Abbott Rapid Diagnostics (ARDx)</b>	Alere i C. diff Quik Chek Complete Alere Determine HIV-1/2 Ag/Ab Combo
<b>ALCOR Scientific</b>	iSED
<b>American Red Cross</b>	Leukoreduced (Platelet Sparing), Low-Titer, Whole Blood Pathogen Reduced Single Donor Platelets in Platelet Additive Solution (PAS) Liquid and Jumbo Plasma
<b>ARUP Laboratories</b>	Reference Laboratory Services and Education
<b>AUDIT MicroControls</b>	
<b>Beckman Coulter</b>	DxH900, AU 700, High Sensitivity Troponin
<b>Becton Dickinson</b>	Push Button Ultra Touch Wingset
<b>Bio-Rad Laboratories</b>	
<b>Bloodworks</b>	Bloodworks Mobile App Northwest Transfusion Symposium 2019
<b>Central Welding Supply</b>	USP Carbon Dioxide, NF Nitrogen, Ultra High Purity Helium, Gas control instruments, Cryogenic Nitrogen, Argon.
<b>Cepheid</b>	Xpress GeneXpert System, Xpress Strep A, Xpress FLU/RSV, NextGen MRSA, and Xpert CT/NG
<b>Clinical Genomics</b>	InSure ONE
<b>Delivery Express, Inc</b>	Courier Service, Delivery Service, Driver Replacement/Coverage, Warehousing
<b>DiaSorin, Inc</b>	The world leader in Total Vitamin D, certified by the NIH/CDC Certification program, a variety of 40+ FDA cleared assays in special chemistry, infectious disease, sepsis management. Fully automated Liaison XL instrument, offering 140+ patient test results per hour, full random access, connectivity to automated lines, fully compatible.
<b>DiaSorin Molecular</b>	Innovative Molecular Diagnostic Products on the Versatile LIAISON® MDX Platform
<b>Drucker Diagnostics</b>	We design, engineer and manufacture centrifuges in the USA. We also offer insulated specimen protection lockboxes for specimen storage and transport.
<b>General Water Technologies</b>	GWT 2000 Series countertop water purification system.
<b>GenMark Diagnostics</b>	ePlex
<b>Global Focus Marketing and Distribution / Immuno Concepts</b>	S2410SP STAT Centrifuge S12V clinical draw site centrifuge Image Navigator automated fluorescent scope S2510R refrigerated table top centrifuge
<b>Greiner Bio One</b>	Visio Flash Needle, VanishPoint Butterfly
<b>Hardy Diagnostics</b>	Carrot Broth One Step GBS Detect HemaPRO hematology stainer GramPRO 1 Gram stainer

Exhibitor	Products
<b>HemoCue America</b>	
<b>Hettich Lab Technology</b>	Centrifuge Manufacturer
<b>InPhase Scientific / Nikon</b>	Ci Microscopes DS-Fi3 Color Camera
<b>Instrumentation Laboratory</b>	HIT-Ab(PF4-H), rapid assay for the detection of HIT HemoHub, HemoCell
<b>Legacy Laboratory Services</b>	
<b>Luminex Corporation</b>	
<b>Mayo Medical Laboratories</b>	Reference Laboratory Services
<b>McKesson Lab Solutions</b>	
<b>MEDTOX Diagnostics, Inc.</b>	
<b>Oregon Institute of Technology/ OHSU</b>	
<b>Ortho Clinical Diagnostics</b>	
<b>PlatinumCode</b>	Kairos ID Automated Tube Labeling Barcode Labels for LIS Systems Disposable tourniquets Cohesive Bandages
<b>Roche Diagnostics</b>	
<b>Radiometer America</b>	
<b>RALS Connectivity for POCT (Abbott)</b>	Point of control solution to manage all results, devices, consumables, operators and reports in one place with one system.
<b>Randox Laboratories Ltd</b>	The history of Randox is one of ambition, innovation and com- mitment to improving health worldwide. We are advancing the cutting-edge science and technologies that hold the key to ground-breaking improvements in health and the prac- tice of healthcare worldwide. The RX series range of clinical chemistry analysers includes both semi-automated (the RX misano) and fully automated testing for a range of clinical settings. With a world leading test menu comprising of routine chemistries, specific proteins, lipids, therapeutic drugs, drugs of abuse, antioxidants and diabetes testing, the RX series of- fers laboratories the complete clinical chemistry package and results you can trust.
<b>Samaritan Health Services</b>	
<b>Sarstedt, Inc.</b>	
<b>Siemens Healthineers</b>	Check out the demo vehicles
<b>Stago</b>	Coag Expert; Stago-EdVantage; Clarity-Core; Anti-Xa
<b>Sysmex America</b>	
<b>Thermo Fisher Scientific</b>	Cold Storage, Centrifuges, liquid transfer, specimen contain- ers TSX, Sorval, Finnepipett, Samco
<b>Tosoh Bioscience</b>	
<b>University of Washington</b>	Reference Laboratory Services
<b>WSLH Proficiency Testing</b>	GI Multiplex Panel, Immunoproteins, Rapid Urease, Thyroid Antibodies, SHBG, and Vaginal pathogens - molecular.

## Registration General Information

### To Register by Mail:

Complete the registration form and mail the registration form and check payable to **NWMLS** to:

2018 Northwest Medical Laboratory Symposium

Brenda Kochis

44 West 26th Avenue

Spokane, WA 99203-1818

If questions, contact Brenda Kochis:

Email preferred: BrenKoch@comcast.net

Phone (before 8 pm) 509-939-8445 (leave message).

**Registration mail postmark by date: October 10, 2018** This assures that your form will be delivered in time for us to provide you with the information to access the handouts. Registration is still available after this date, just allow for mail time.

### To Register Online:

Go to [www.asclswa.org](http://www.asclswa.org) and click on the **NWMLS** tab. Click on “Online Registration” to go to the online form. Credit cards can be used to pay for registration.

- Registrants using the online form must have a completed registration by October 20, 2018 to receive lunch if eligible.
- **Evening Session** has a separate charge and includes a light dinner.
- **Lunch** is provided for those that register for two sessions (morning and afternoon) on the same day.
- **Handouts** for all sessions will only be available online. Registrants will be sent the web address, user-name and password to access the handouts. Please print your email address clearly.
- **All sessions** are approved for P.A.C.E. credits.
- **Hotel reservations: ONLINE.** Visit the NWMLS website for more detailed information about online hotel reservations. Go to [www.asclswa.org](http://www.asclswa.org) and click on NWML/Hotel link. **PHONE.** If having trouble receiving the group rate using the online hotel reservation, call the hotel directly at (503) 256-5000. Ask for the “Northwest Medical Laboratory Group Rate” to get the seminar rates. **GROUP RATE DEADLINE.** Reserve your room by October 7, 2018. If booking after October 7, the rates will revert to the standard hotel rates.
- **No “NWMLS” Registration refunds** will be issued.
- **Fees are by session.** Each session is 3 hours (half day). Please register for the membership category that you qualify for. More information about fee categories are on the website at [www.asclswa.org](http://www.asclswa.org) tab: NWMLS, or on page 38.

# Registration Form

2018 Northwest Medical Laboratory Symposium

October 24 - 27, 2018  
Portland, OR

*Online registration and credit card payment is available in  
the NWMLS link at [www.asclswa.org](http://www.asclswa.org)*

*or*

*For mail registration send this form with a check.*

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Day Phone \_\_\_\_\_ Evening Phone \_\_\_\_\_

Institution \_\_\_\_\_

City/State \_\_\_\_\_

Email Address \_\_\_\_\_

**Are you willing to serve as a  
moderator?**  Yes  No

***Circle the sessions  
you will be attending.***

Wednesday Oct 24	AM	1	2	3	
	PM	4	5	6	
	Eve	7			
Thursday, Oct 25	AM	8	9	10	11
	PM	12	13	14	15
	Eve	16			
Friday, Oct 26	AM	17	18	19	20
	PM	21	22	23	24
Saturday, Oct 27	AM	25	26		

Category	# Sessions	Fee/session	Total Fee
<b>ASCLS/AMT Professional/Technical</b> .....		\$55.00	\$
ASCLS # _____ AMT # _____			
<b>Special Member</b> .....		\$70.00	\$
__AABB __AACC __ASC __ASCT __CLMA __ASM __ASH __ASCP Member number _____			
<b>Non-Member</b> .....		\$85.00	\$
<b>Phlebotomist, AMT RMA/RPT/RDA</b> .....		\$35.00	\$
<b>Student</b> .....		\$25.00	\$
<b>Evening Session (Member, Nonmember, Special)</b>		\$30.00	
<b>Evening Session (Phlebotomist, Student)</b>		\$20.00	
<b>Total Fee</b> .....			\$

Mail with check to

**2018 NWMLS**  
Brenda Kochis  
44 West 26th Avenue  
Spokane, WA 99203-1818

Full payment in U.S. Dollars must accompany each mailed

registration. Make check payable to **NWMLS**

**Mail by October 20 to assure timely arrival**

**OR**

Online registration with credit card payment is available at

**[www.asclswa.org](http://www.asclswa.org)**

# Registration Fee Categories

Fees are listed for each attendance category. The list below defines those categories.

## Attendance Categories

**Member:** Any person who is a current member in good standing of the American Society for Clinical Laboratory Science (ASCLS) or the American Medical Technologists (AMT). Please list your membership number in the appropriate space on the registration form. New members are eligible for member rates. To join please see the information on the website: [www.asclswa.org](http://www.asclswa.org).

### **Special Member:**

Any person currently a member in good standing of the following organizations:

- AABB (American Association of Blood Banks)
  
- AACC (American Association for Clinical Chemistry)
  
- ASC (American Society of Cytology)
  
- ASCP (American Society of Clinical Pathologists)  
Laboratory Professional Membership Category  
NOTE: Certification through ASCP only does NOT qualify you for  
“Special Member” rates.
  
- ASCT (American Society for Cytotechnology)
  
- ASH (American Society of Hematology)
  
- ASM (American Society of Microbiology)
  
- CLMA (Clinical Laboratory Management Association)

**Student:** A student is defined as any person who is engaged at least half-time in a recognized program leading to either an associate’s or bachelor’s degree in a clinical laboratory science or one who is in a recognized Clinical Laboratory Internship program.

**Phlebotomist:** A phlebotomist is defined as any person whose primary responsibility is phlebotomy. Medical Assistants and AMT’s RMA’s are eligible for Phlebotomist fees.



# Special Notes

## General Information

Casual dress is appropriate for all sessions. There will be no smoking in any of the sessions.

Cell phones must be turned off during the session.

Your name badge is required for admission to all sessions and to the Exhibit Hall. Please wear your name badge at all times.

## Meeting Room Assignments

The session room assignments will be printed on the session sheet in your registration packet. A floor plan will be available at the registration desk.

## Message Center

A message board will be maintained at the registration desk for Emergency messages. The phone number for the Holiday Inn, Portland Airport is (503) 256-5000.

## Hospitality

In keeping with tradition, all exhibitors will participate in combined hospitality functions in the Exhibit Hall. **There will be no individual hospitality suites.**

## Updates

Updates will be posted on the website at [www.asclswa.org](http://www.asclswa.org)

Please check for session updates and or cancellation information.

## P.A.C.E.®

P.A.C.E.® credits have been approved for all appropriate sessions.

ASCLS-OR is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® program. ASCLS-OR will use CE Organizer for documentation of continuing education credits. Please make note of the P.A.C.E.® number and of the session number that the attendee will receive upon completing the online evaluation. Without this information, the attendee will not be able to obtain their electronic certificate.

**Please complete the online evaluation(s) as soon as possible**, then go to CE Organizer to get your certificate. The sessions in CE Organizer will not be available after April 25, 2019.

## Handouts ONLY Available On-line

To keep registration rates as low as possible, the Northwest Medical Laboratory Symposium will no longer provide copies of the session handouts on-site at the meeting. Session handouts will be available for download at the ASCLS-WA website (<http://www.asclswa.org>). Click on the "NWMLS" tab. Remember to print copies of the handouts for the sessions for which you registered and bring them to the meeting with you. **No handouts will be provided onsite.** If you are having problems downloading the handout, please contact Brenda Kochis, [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net).

Handouts for the sessions will be available on the ASCLS-WA website approximately 2 weeks prior to the meeting in a password protected area. You will receive the "password" and instructions on how to print the handouts approximately 2 weeks before the meeting. The email will be from [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net), so watch for it. Register early so that you can print the handout material for your sessions. Handouts will NOT be provided for those that register onsite. If you plan to register onsite, please contact Brenda Kochis at [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net) for information regarding handout access.