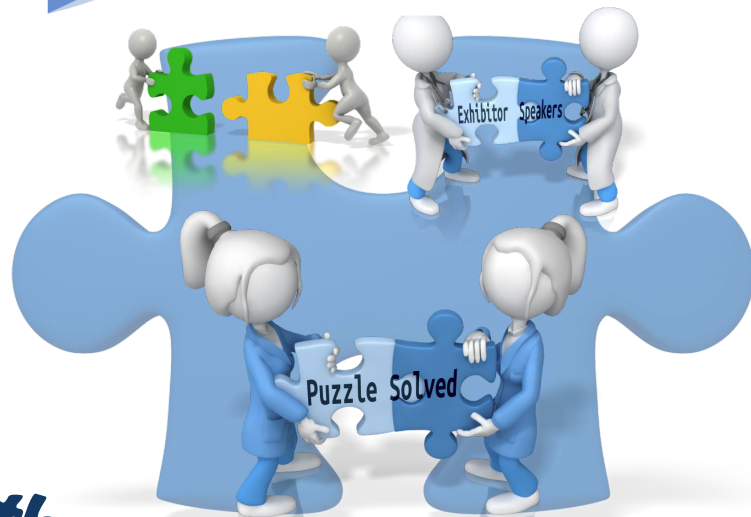


# Northwest Medical Laboratory Symposium

**Lynnwood Convention Center  
Lynnwood, WA  
October 9 - 12, 2019**

**Education, Exhibits, Networking**

*WORKING TOGETHER FOR HEALTHCARE.*



**in the Pacific Northwest**

## There is nothing like Face-to-Face Meetings

Educational conferences offer continuing education with the added value of being able to see the speaker in person, ask your questions, and hear the questions and answers of other participants. The conference format also provides opportunities for networking with colleagues from across the region. Step out of your comfort zone and make plan to attend the NWMLS this year.

Top 10 reasons to attend the NWMLS:

- ⇒ You get to meet and interact with experts in the field face-to-face and develop a relationship. This is not something that can be done with online CE opportunities.
- ⇒ Being around other like-minded professionals is inspiring and refreshing, and you can meet new people and expand your network by forging partnerships with colleagues to address key common issues or concerns.
- ⇒ One-stop shopping. Get up to date with the latest technologies and practices in several disciplines all at once.
- ⇒ Interact with multiple vendors in one venue, ask questions, compare products, and get advice from fellow CLSs in attendance.
- ⇒ Advance your career. Employers like to see that you are committed to your job, and attending conferences is one way you can show your employer that you are a lifelong learner.
- ⇒ Find answers to difficult and challenging questions that you have been struggling with in your workplace.
- ⇒ Rest and relax. Get away from the common grind of your daily routine at work, home, and in our community. Enjoy some “me time,” slow down, stop, and relax.
- ⇒ Your mind may be opened to new opportunities, new theories, and new ideas.
- ⇒ Advance the profession – to remain a respected profession, clinical lab scientists will need to demonstrate their commitment to the profession through career advancement and additional training. Attending in-person conferences is one way for you to demonstrate your commitment to the profession.

Education is crucial to our performance in the laboratory, but it is more than knowledge. By attending professional conferences and meetings, it will produce lifelong friendships and professional opportunities.

Support your professional organizations, which sponsor the conference. Your attendance and support make our professional societies stronger.

We look forward to you planning to attend!

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# The Northwest Medical Laboratory Symposium

## Sponsoring Organizations

**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**

## 2019 NWMLS At A Glance

<b>Wednesday, October 9</b>	AM	1	2	3	4
	8:30 - 11:45 AM	Thrombosis: What's the Risk?	Survival Skills in a Bug's World	PSA Isoforms in Prostate Cancer Management  Patients with Cardiorenal Syndrome	Best Practices in Blood and Urine Collection
	<b>Exhibits: 11:45 AM – 2:15 PM</b>				
	PM	5	6	7	8
	2:15 - 5:30 PM	Techniques and Surveillance in Disease Management for Public Health	What's New With CLSI Documents	Platelet Transfusion Therapy  Update on Thrombocytopenia	Evolving Role of the Microbiologist in Advancing Antibiotic Stewardship
<b>Thursday, October 10</b>	AM	9	10	11	
	8:30 - 11:45 AM	Variants Of The Rh Blood Group System  Blood Donation Reactions in Young Donors and Intervention Strategies	Moving Hematology Forward: Sepsis  Employing Neural Networks to Standardize RBC Morphology and the WBC Differential	Biomarkers in The Diagnosis of GI Infection and Disease  Herpes Simplex Virus Infection	
	<b>Exhibits: 11:45 AM – 2:15 PM</b>				
	PM	12	13	14	15
	2:15 - 5:30 PM	The Law Versus the Lab - Who Will Win?	Antimicrobial Resistance, Antimicrobial Stewardship, and Efforts in the Pacific Northwest	The Current Status of Rapid HIV Testing  The Pros and Cons of Rapid Infectious Disease Testings	Method Validation / Verification / Training and Competency Assessment
<b>Friday, October 11</b>	AM	16	17	18	19
	8:30 - 11:45 AM	Beta-Hydroxybutyrate Testing in the Diabetic Patient	Case Studies In Red Cell Disorders and Coagulation	Laboratory Support for ECMO	Antibiotic Resistance Case for Diagnostics to Help Direct Therapy Enteric Disease
	<b>Exhibits: 11:45 AM – 1:30 PM</b>				
	PM	20	21	22	
	1:30 - 4:45 PM	Injecting Culture: How to Create a Thriving Work Environment	Global Warming and Clinical Mycobacterial & Fungal Infections	Good Nutrition for Everyone  Interpreting Lab Values in Renal Failure	
<b>Saturday, October 12</b>	AM	23	24	25	26
	8:30 - 11:45 AM	Creating Leaders Out of Entry Level Employees	Pediatric Hematopathology Cases	Phlebotomy and Beyond  Advanced Phlebotomy Techniques	Practical Applications of Quality Control
	PM	27	28	29	30
	1:00 - 4:15 PM	Antimicrobial Susceptibility Testing Challenges and Diagnostic Stewardship	Cytologic Evaluation of Body Fluids	Are You Current with Your GP41 CLSI Phlebotomy Standards?	What's New With CLSI Documents

# Welcome to the 2019 Northwest Medical Lab Symposium

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### Registration Hours

Wednesday, Thursday	7:30 AM - 8:30 AM 1:30 PM - 2:15 PM
Friday	7:30 AM - 8:30 AM 12:30 PM - 1:30 PM
Saturday	7:30 AM - 8:30 AM 12:30 PM - 1:00 PM

### Session Times

Wednesday, Thursday:	8:30 AM - 11:45 AM 2:15 PM - 5:30 PM
Friday	8:30 AM - 11:45 AM 1:30 PM - 4:45 PM
Saturday	8:30 AM - 11:45 AM 1:00 PM - 4:15 PM

### 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
Saturday	11:45 AM - 1:00 PM

## NWMLS Committee

General Chair	Leonard Kargacin
Program	Leslie Nakagawa Victoria Robbe Chelsea Cheever Carol Wu
Exhibits	Brenda Kochis
Registration	Brenda Kochis Neva Wilson
Program Design	Brenda Kochis
Finance	Toni Okada
Moderators	Roxanne Erskine
Webmaster	Brenda Kochis

***The 2019 Northwest Medical Laboratory Symposium Program and registration form are available on the Internet at the following URL***

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

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

***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!

## ASCLS - Region IX

Regional Director Terese Abreu

**Region IX Forum** Friday, October 11, 2019  
4:45 - 6:00 PM

### ASCLS-OR

President	Rachelle Barrett
President Elect	
Secretary	Jacqueline Rice
Treasurer	Tiffany Mach
Past President	Patty DeTurk

ASCLS-OR Board Meeting  
Friday, October 11, 2019 Follows Region IX Forum

### ASCLS-Washington

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

ASCLS-WA Board Meeting  
Friday, October 11, 2019 Follows Region IX Forum

### CLSA

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

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## 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

### ORAMT

Business Meeting: Friday, Oct 11, 5:00 PM

### NWSSAMT

President	Roxanne Erskine
Secretary	Danielle Rathbun
Treasurer	D'Maurier Barnhart

# Best Western Alderwood Hotel



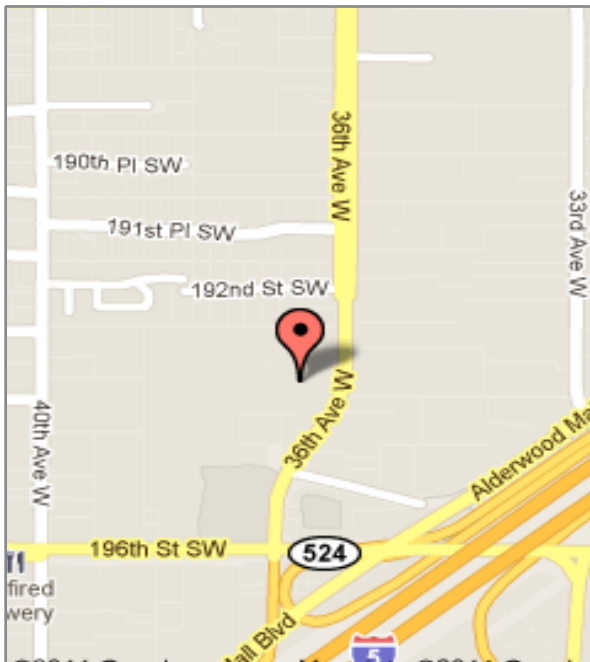
## Hotel Information

Special group rates are available at the Best Western Alderwood Hotel through



**September 24, 2019**

After that date, room rates will be at the discretion of the hotel. Please mention that you are with the Northwest Medical Laboratory Symposium when making your reservations by telephone at 425-775-7600.



## Best Western Alderwood Hotel

19332 36th Ave W  
Lynnwood, WA 98036  
Phone: 425-775-7600  
Fax: 425-771-3087

Website: <http://www.bestwesternwashington.com/hotels/best-western-alderwood/>

The Hotel will honor the following overnight room rates:

\$75.99 for single bed  
\$79.99 for double bed

Hotel room rates are subject to applicable state and local taxes.

### Reservations:

- Call the hotel at 1-800-205-6935 or 1-425-775-7600. You must request the NWMLS group rate to obtain the listed room rate. The group rate will be honored until **September 24, 2019**.
- There is a direct link on the website. The link is [Best Western Registration](#).

There is no charge for parking at the Best Western Alderwood Hotel.

# Lynnwood Convention Center



## Lynnwood Convention Center

3711 196th Street SW  
Lynnwood, WA 98036

Toll Free: 888-778-7155  
Fax: 425-778-7965

Website: [www.lynnwoodcc.com](http://www.lynnwoodcc.com)

The Lynnwood Convention Center has 600 free parking places. All sessions will be at the Convention Center. There is no charge for parking at the Lynnwood Convention Center.

### DIRECTIONS FROM SEATTLE:

- Take I-5 North; Take Exit 181B (Alderwood Mall)
- Take left onto Poplar Way (first light)
- Take left onto 196th Street
- Drive West over the freeway, Convention Center is on the right.
- For the Alderwood Best Western Hotel, turn right onto 36th Avenue W (The Best Western Alderwood is on the left just North of the Lynnwood Convention Center.)

### DIRECTIONS FROM EVERETT:

- Take I-5 South; Take Exit 181 West
- Drive West one block, Convention Center is on the right.
- For the Alderwood Best Western Hotel, turn right onto 36th Avenue W (The Best Western Alderwood is on the left just North of the Lynnwood Convention Center.)

### DIRECTIONS FROM EASTSIDE/BELLEVUE

- Take I-405 Northbound
- Merge onto I-5 Southbound; Take Exit 181 West
- Drive West one block, Convention Center is on the right.
- For the Alderwood Best Western Hotel, turn right onto 36th Avenue W (The Best Western Alderwood is on the left just North of the Lynnwood Convention Center.)

*Session 1      8:30-11:45 am      Intermediate      3 contact hours*

## **Thrombosis: What's the Risk? Will I Be One of the Unfortunate Ones?**

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



Acquired and inherited thrombotic risk is multifaceted. Patient thrombotic risk is based on many independent, but also inter-dependent factors. Our session will explore both genetic and external risk factors, what testing should be done, if any, and how the hemostasis laboratory is an integral part of the diagnostic team.

- ⇒ List genetic factors potentially involved in thrombosis, including Protein C, Protein S, Antithrombin and Factor V Leiden and discuss Lupus Anticoagulants and their role in thrombosis.
- ⇒ Describe situational risk in thrombosis, such as air travel, malignancies and high-risk surgeries and evaluate approaches to thrombosis testing: whom and what do we test?
- ⇒ Summarize thrombosis risk in case studies and how it relates to the diagnostic team.

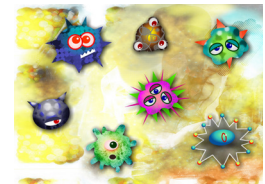
*Sponsor: Diagnostica Stago, Inc.*

*Session 2      8:30-11:45 am      Intermediate      3 contact hours*

## **Survival Skills in a Bug's World**

- **Siu Kei (Jacky) Chow, PhD, D(ABMM)**  
MultiCare Health System  
Tacoma, WA

The clinical microbiology field is evolving at a rapid pace. The advancement of knowledge and technology has promoted efficient clinical practice as well as accurate, rapid diagnoses of emerging infectious diseases. The speaker will provide an overview of the latest technologies and practices for the clinical microbiology laboratory. Additionally, recent highlights from the literature on laboratory function, epidemiology and clinical practice will be reviewed.



- ⇒ Describe the dynamics between knowledge and practice in clinical microbiology.
- ⇒ Discuss the updates in clinical microbiology and their applications in medicine.
- ⇒ Discuss the potentials and limitations of the new technologies in clinical microbiology.



## Clinical Utility of PSA Isoforms in Prostate Cancer Management

- **Monet N. Sayegh, M.D.**

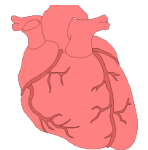
Siemens Healthineers

An estimated 164,690 new cases of prostate cancer accounting to 19% of new cancer cases in men was reported by the American Cancer Society in 2018. This brought PC at the top of the chart and an estimated 29,430 deaths makes it second to Lung & Bronchus cancer accounting for 9% of male cancer death in 2018. Extensive use of PSA testing has importantly contributed to 52% decline in prostate cancer mortality between 1989 and 2015. The presentation will address three main topics: an overview of prostate cancer, clinical utility of prostate specific antigen, and ways to improve PSA performance using PSA isoforms and finally discussing some of the emerging biomarkers that potentially can meet clinical needs, as this may reduce unnecessary interventions that may cause more harm than good.

- ⇒ Describe the role PSA plays in the diagnosis and monitoring of prostate cancer.
- ⇒ Discuss the value that ratios and isoforms can play in improving PSA testing.
- ⇒ Describe the role of Complexed PSA in the early detection of Prostate Cancer.

## Clinical and Diagnostic Testing of Patients with Cardiorenal Syndrome

The layout of this talk begins with an explanation of the concept of the Cardiorenal syndrome. 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 it, what types there are, and what is known about the underlying pathophysiology. The burden of these diseases and the overlap is tremendous. We will go through that, then will review the current guidelines for diagnostics from the ADA to the KDOQI guidelines.



Since there's a lot going on, we'll finally review case studies that can help us pull this information together with real-life applications of these recommended guidelines within real-life patients.

- ⇒ Describe the pathophysiology of how diabetes can affect the heart and kidneys.
- ⇒ Outline the role of The Kidney Foundation in the diagnosis of chronic kidney disease.
- ⇒ Describe the various biomarkers used in diagnosis and management of kidney disease.

*Sponsor: Siemens Healthineers*

The ability to meet face-to-face with other professionals to share ideas is why the NWMLS matters and adds value over online CE.  
.....Lisa (McDonnel) Klingler.....

## **Best Practices in Blood and Urine Collection in Consideration of Sample Quality and Patient Experience**

**- Jean L. 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 Co.*



### **Exhibits**

We have a number of companies in the Exhibit Hall. Plan to visit them and discover new and exciting technology and procedures for your lab.

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

And the raffle gives you an opportunity for great prizes! Just collect 10 stickers from the various Exhibitors to complete one card. You can complete more than one. Daily drawings!



**Visit the Exhibits**

## **Techniques and Surveillance in Disease Management for Public Health**

- **Sopheay Hun, MBA, MLS(ASCP)CM**  
WA State DOH Public Health Laboratories
- **Karin Neidt, MPH**  
Program Manager, Office of Newborn Screening
- **Philip Dykema, PhD**  
Supervisor of Molecular and Virology Teams
- **Beth Melius, RN, MN, MPH**  
Foodborne and Enteric Disease Epidemiologist
- **Charla (Chas) DeBolt, RN, MPH**  
Vaccine Preventable Diseases Epidemiologist
- **Raymond Gee, BS**  
Lead Microbiologist, Enterics and Parasitology Laboratories
- **Marisa D'Angeli, MD, MPH**  
Medical Epidemiologist
- **Kelly Kauber, MPH, CIC**  
Antimicrobial Resistance Epidemiologist
- **Drew MacKellar, PhD**  
Bioinformatician
- **Krisandra Allen, MPH, MB(ASCP)CM**  
Foodborne and Enteric Disease Epidemiologist

The Department of Health works to protect and improve the Health of People in Washington State. Washington State Public Health Laboratories (WAPHL) provides diagnostic and analytical services for testing and surveillance of infectious, communicable, genetic, and chronic diseases and environmental health concerns. WAPHL is accredited by College of American Pathologists (CAP) and follows Clinical Laboratory Improvement Amendments (CLIA '88) requirements. Laboratory functions include providing state-of-the-art reference clinical laboratory testing and confirmation, foodborne disease surveillance, outbreak response, biomonitoring, and response to biological, chemical, and radiological terrorism. Laboratory data is submitted to patient healthcare physicians along with state and national health authorities.

The speakers in this session will present on a diverse range of public health cutting edge technology from early hearing loss detection, antimicrobial resistance data for action, microbial genomics including whole genome sequencing, and current emerging infectious diseases.

- ⇒ Describe antimicrobial resistance surveillance, drug resistance detection, and the containment response.
- ⇒ Describe how experts in bioinformatics use high performance computing to integrate data from epidemiologic investigations and genomic sequencing.
- ⇒ Discuss current outbreak response and advance technology in foodborne disease surveillance.

### Proposed Timeline

<b>Time</b>	<b>Topic</b>	<b>Presenters</b>
30 min	Early Hearing-loss Detection, Diagnosis and Intervention	Karin Neidt, MPH
35 min	Antimicrobial Resistance Detection in Targeted Surveillance Testing	Sopheay Hun, MBA, MLS(ASCP) <sup>CM</sup> Marisa D'Angeli, MD, MPH Kelly Kauber, MPH, CIC
35 min	Microbial Genomics and Whole Genome Sequencing in Outbreaks	Philip Dykema, PhD Drew MacKellar, PhD Beth Melius, RN, MN, MPH
35 min	Vaccine Preventable Measles	Charla (Chas) DeBolt, RN, MPH
35 min	Foodborne Illness and Culture Independent Diagnostic Tests and Investigations	Raymond Gee, BS Krisandra Allen, MPH, MB(ASCP) <sup>CM</sup>

*Session 6*

*2:15-5:30 pm*

*Intermediate*

*3 contact hours*

## What's New With CLSI Documents

- **Luann Ochs, MS**

Clinical & Laboratory Standards Institute  
Wayne, PA

This session includes several parts. First we will discuss New and Revised CLSI Documents with a general overview of recently published new or revised CLSI documents, including what changes have been made. Next we will look at EP06, Verification of Linearity Simplified which covers how to do linearity verification using simplified methods that are described in the new EP06 documents. Next is QMS20, Cost of Quality which covers how to determine the cost of poor quality within the laboratory.

- ⇒ Describe the content of new or recently revised CLSI documents.
- ⇒ Outline new recommended methods for verifying linearity.
- ⇒ Describe the importance of determining the cost of quality, and methods for doing so.

Note: This session is also offered on Saturday, as Session 30.

*Sponsor: Clinical & Laboratory Standards Institute*

*Session 7*

*2:15-5:30 pm*

*Intermediate*

*3 contact hours*

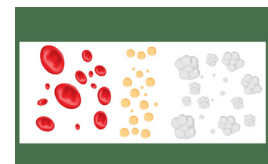
## Part 1: Platelet Transfusion Therapy

## Part 2: Update on Thrombocytopenia

- **Terry B. Gernsheimer, MD**

University of Washington  
Seattle, WA

This session in two parts will describe the pathophysiology, laboratory findings, and diagnosis of thrombocytopenia. The second part will review therapies for thrombocytopenia, focusing on platelet transfusion therapy. The transfusion section will include platelet support of the surgical, oncologic, and stem cell transplant patient and adjunctive therapies for thrombocytopenic bleeding.



- ⇒ Classify different pathologic mechanisms of thrombocytopenia.
- ⇒ Identify appropriate platelet transfusion thresholds for patients with thrombocytopenia.
- ⇒ Describe new platelet preparations and adjunctive therapies for bleeding.

## **The Evolving Role of the Microbiologist in Advancing Antibiotic Stewardship: Changing the Paradigm**

**- Michael R Broyles, BSP Pharm, RPh, PharmD**

Five Rivers Medical Center  
Pocahontas, AR

The participant will become aware of the opportunities that exist for most laboratories to extend their effectiveness in antimicrobial stewardship programs. We will describe various methodologies and how they become synergistic to provide clinicians the needed information to avoid over prescribing. Recommendations are discussed to add value to the hospital team and C-Suite helping them to see the “Big Picture” while avoiding the common “Silo” mentality. All of the concepts will be demonstrated using real patient case studies so the microbiologist and laboratorian can see the value of each methodology and their effect on successful outcomes. Lastly, real-world published clinical and financial measures presented to the FDA will be shared.

- ⇒ Define the value of each organism identification methodology and evaluate the added worth of individual tests when paired with time optimization for more rapid reporting.
- ⇒ Assess the benefits of organism identification when combined with biomarkers of high bacterial specificity.
- ⇒ Cite the expected clinical and financial benefits of successfully implemented micro and stewardship programs.

*Sponsor: bioMerieux*



### **Handouts**

Handouts are only available online at [www.asclswa.org](http://www.asclswa.org). Several weeks before the Seminar, registrants will receive an email from [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net) with session confirmations and instructions for accessing the handouts. Be sure to print them and bring them with you to the meeting. No handouts will be available onsite.

## **Variants Of The Rh Blood Group System: Understanding How and When Genotyping Can Help Resolve Serologic Typing Discrepancies**

**- Samantha Harris, BS**

Bloodworks NW, Seattle, WA

The Rh blood group system is one of the most polymorphic and antigenic human blood group systems, and is second only to ABO in importance in blood transfusions. From single nucleotide variants to full gene deletions, the Rh blood group system is quite complex. This complexity results in the potential for various serologic typing discrepancies to arise. This session will include topics that cover molecular basics to advanced concepts used in RH genotyping. The speaker will focus on the indications for red cell genotyping, explain how to utilize red cell genotyping to help resolve discrepancies in the transfusion service laboratory, and discuss the differences among the common types of RHD variants. Patient cases will be used to illustrate concepts.

- ⇒ Highlight indications for using genotyping to solve Rh typing discrepancies.
- ⇒ Review the molecular basis for the Rh blood group systems and discuss genotyping methods used in the lab and outline the differences between weak, partial, and Del RHD variants.
- ⇒ Discuss case studies involving RHD and RHCE variants.

## **Blood Donation Reactions in Young Donors and Intervention Strategies Utilizing Medically Trained Volunteers**

**- Naomi Demarest, MPA, CVA, LSSGB**

Bloodworks NW, Seattle, WA

Bloodworks NW has served our local hospitals and clinics for 75 years and continues to meet a critical need in our community. One of our challenges that impacts our blood supply is engaging young blood donors to not only donate blood, but to donate regularly. Studies and evidence in donor retention and donation patterns demonstrate a correlation between donation experience that includes a vasovagal reaction and the impact it has on future donations. As a subject matter expert in volunteer engagement and a leader at Bloodworks NW, Naomi Demarest piloted a progressive project focused on engaging medically trained volunteers in both critical and skill-based tasks aimed at improving young donor engagement patterns, improving efficiency at high schools and college blood drives as well as identifying an opportunity to further engage volunteers within the medical community in blood collection efforts. This session will review a paradigm shift in how medically trained volunteers are strategically utilized to grow organizational capacity and deeper community partnerships while simultaneously improving donor experience and retention rates.

- ⇒ Describe how in the U.S., blood is typically collected, processed, and stored at regional non-profit blood centers and is distributed to hospitals on a daily or weekly basis and this is critical to maintain an adequate availability and accessibility of blood and blood products.
- ⇒ Describe how Young Donors (ages 16-22) are the “next generation” of blood donors and we must connect with them early and create positive experiences in order for them to return.
- ⇒ Discuss that Young Donors have higher rates of post-donation reactions (vasovagal reaction), currently representing 58% of reaction rates at Bloodworks NW.

*Sponsor: Bloodworks NW*

## **Moving Healthcare Forward: Sepsis**

**- Kathy Davidson Altig, BS, MT(ASCP)**

Beckman Coulter  
West Linn, OR

Problem: Sepsis has a high mortality rate and is the third leading cause of death in the US, over 258,000/year in the US with 25-30% Mortality Rate. Two thirds of septic patients enter the health system thru the ED and this is the #1 cause of hospital readmission. Annual costs in the US are greater than \$24 billion. Sepsis impacts many people - 26 million people worldwide are affected with a 1.5% increase in incidence each year. Early Identification Sepsis reduces costs to healthcare organizations; antibiotic administration decreases the likelihood of death by 7.6% per hour. We propose a test that will give earlier information to clinicians.

- ⇒ Identify what happens during sepsis.
- ⇒ Describe the tools hospitals have now.
- ⇒ Outline the mechanism for early detection and identification.

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*Sponsor: Beckman Coulter*

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## **Employing Neural Networks to Standardize RBC Morphology and the WBC Differential using Digital Cell Morphology with Case Studies**

**- Scott Dunbar, BS, MS**

CellaVision  
Flower Mound, TX

This session will describe how advanced RBC Software and Neural Networks can standardize RBC Morphology of the manual differential. Furthermore it will cover new case studies of rare disorders and on-line competency software which will help assess quality.



- ⇒ Discuss how Neural Networks can standardize a very subjective analysis, the manual differential.
- ⇒ Explain how to standardize RBC Morphology in terms of 1+,2+ and 3+ with percentages of sub-types of RBC's.
- ⇒ Visualize digital morphology tools for educational purposes and the assessment of competency.

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*Sponsor: CellaVision*

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## The Role of Biomarkers in The Diagnosis of Gastrointestinal Infection and Disease

### - Sarah Elliott, PhD

DiaSorin  
Stillwater, MN

A large proportion of people in the US suffer from some form of gastrointestinal disease, including ulcerative colitis, Crohn's disease, irritable bowel syndrome, and pancreatic insufficiency. Unfortunately, these disease states often present with an overlapping continuum of signs and symptoms, confounding diagnosis on the basis of clinical presentation alone. Utilizing fecal biomarkers to aid in the diagnosis of many gastrointestinal diseases is a major advancement in the field, and can help differentiate between the different disorders. *Helicobacter pylori* is a bacterial pathogen that is estimated to infect 20-35% of the US population. This bacterium establishes infection in the stomach lining and causes peptic ulcer disease, gastritis, and is a known risk factor for gastrointestinal cancers. This session will focus on several gastrointestinal diseases, the relevant current testing recommendations, available testing methodologies, and highlight the importance of an accurate diagnosis and the resulting impact on patient care.

- ⇒ Describe the current AGA and ACG recommended testing guidelines to diagnose *H. pylori* infection and other gastrointestinal disease states.
- ⇒ Relate advantages and limitations of different testing methodologies to aid in the diagnosis of gastrointestinal infection and disease.
- ⇒ Describe how measuring levels of calprotectin in patient fecal samples can help distinguish between a diagnosis of IBS or IBD.

Sponsor: DiaSorin

## Herpes Simplex Virus Infection: From Delivery Room to Nursing Home

### - Jeff Chan, PhD

⇒ DiaSorin Molecular  
Cypress, CA

Herpes simplex virus: HSV-1 and HSV-2 are common human pathogens that affect all age groups. Clinical presentation of HSV infection ranges from cutaneous and mucocutaneous lesions to encephalitis and meningitis. This presentation will discuss the epidemiology and modality of HSV infections, and emphasize the appropriate use of diagnostic tests.

- ⇒ Explain the general background of HSV1 & 2 and the human herpes virus family.
- ⇒ Discuss the implications of HSV1 & 2 infections in various age groups and manifestations.
- ⇒ Describe the benefits and limitations of various diagnostic technologies.

Sponsor: DiaSorin Molecular



**Don't Forget! Visit the Exhibits**  
**11:45 AM to 2:15 PM**

---

*Session 12      2:15-5:30 pm      Intermediate      3 contact hours*

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## **The Law Versus the Lab - Who Will Win?**

- **Kelcey Terrell, MT(ASCP)H, CG, CLC**  
InCyte Pathology  
Spokane Valley, WA

Imagine that you had to go defend one of your lab results in court? What documentation would you need to show that your laboratory produced an accurate and quality result? This session will provide education on the legal liability of your lab and show the importance of proper documentation. This will be a fun and interactive session.

- ⇒ Identify proper documentation needed to prove an accurate laboratory result.
- ⇒ Discern between 'good' and 'poor' documentation practices.
- ⇒ Discuss how to provide education to laboratory staff on proper documentation expectations.

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*Sponsor: InCyte Pathology*

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*Session 13      2:15-5:30 pm      Intermediate      3 contact hours*

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## **Antimicrobial Resistance, Antimicrobial Stewardship, and Efforts in the Pacific Northwest**

- **Chloe Bryson-Cahn, MD**  
Harborview Medical Center  
Seattle, WA

In this session, we will explore antimicrobial resistance and its impact on the care of our patients. We will discuss how the overuse of antimicrobials drives resistance and successful strategies to help improve the use of antimicrobials, including opportunities for the lab to drive better prescribing. We will wrap-up with some innovative approaches in antimicrobial stewardship in the Pacific Northwest.

- ⇒ Describe the importance of antimicrobial resistance.
- ⇒ Identify examples of antimicrobial stewardship successes.
- ⇒ Assess opportunities for antimicrobial stewardship work in the lab.

## The Current Status of Rapid HIV Testing

- **Norman Moore, PhD**

Abbott Rapid Diagnostics  
Scarborough, ME

HIV is the etiological agent for AIDS. While there are newer therapies that improve quality and duration of life, it is still imperative to implement HIV screening to detect cases as early as possible both to put them on the appropriate therapy and limit exposure to other people.

- ⇒ Define the current state of the HIV epidemic and trends in HIV diagnosis.
- ⇒ Evaluate the new data on Undetectable = Untransmittable.
- ⇒ Cite the CDC & Medical Organization recommendations for routine HIV testing and describe the importance of routine HIV testing in the POL setting and clinics.

## The Pros and Cons of Rapid Infectious Disease Testing

Many tests are available that can give diagnostic information in minutes which can aid in directing therapy. Using the appropriate antibiotic or antiviral can help reduce complications such as *C. difficile* and antibiotic resistant microorganisms as well as other issues associated with the human microbiome.



- ⇒ Describe the issues associated with the overuse of antibiotics.
- ⇒ Discuss the benefits of testing particular disease states.
- ⇒ Outline diagnostic options for infectious diseases.

*Sponsor: Abbott Rapid Diagnostics*



### Exhibits

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

It is open again tomorrow from 11:45 am to 1:30 pm

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

## **Method Validation / Verification / Training and Competency Assessment - Learning From Each Other!**

**- Steve LaCroix, MS, CBSP**

Washington Public Health Laboratories  
Shoreline, WA

Let's review various aspects of method validation and verification while touching base on training and competency assessment - but primarily learning from each other!!

We will cover some basic method validation and verification strategies giving you the Public Health Laboratories experience. What is required and what meets your needs?



This will be interactive and we invite your participation. We will cover training and competency assessment since that is always an ongoing process that is key to quality testing.

- ⇒ Discuss strategies for implementing or improving your validation and verification processes.
- ⇒ Identify aspects that will improve performance in your lab.
- ⇒ Discuss how to keep Training Plans and Competency Assessments at the forefront of everyone's experience.

*Sponsor: Washington State DOH Public Health Laboratories*



App available two weeks before the meeting.

events **XD**

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.

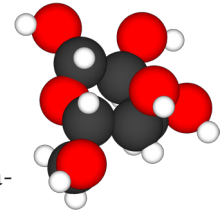
Plan a schedule that is  
**UNIQUELY YOU**

## **Beta-Hydroxybutyrate Testing in the Diabetic Patient**

**- Tina J Batsch, MT(ASCP)**

Newport Hospital and Health Services  
Newport, WA

One of the major consequences of diabetes is the development of hyperglycemia with ketoacidosis and diabetic coma. This session will take an in depth look at the physiology and biochemistry of the insulin dependent diabetic. Management of the disease will be discussed including proper insulin regulation, diet, and exercise. The role of laboratory beta-hydroxybutyrate testing during the ketoacidosis state will be presented.



- ⇒ List the three most important factors in diabetes management.
- ⇒ Describe the differences between infusion pump and insulin injection management.
- ⇒ Define what Beta-hydroxybutyrate testing is and its importance in the monitoring of ketoacidosis.

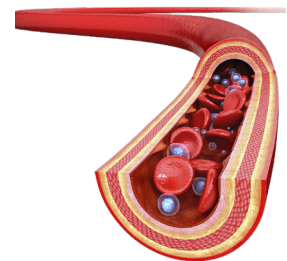
*Sponsor: Newport Hospital and Health Services / North Puget Sound Society for CLS*

## **Case Studies In Red Cell Disorders and Coagulation**

**- Daniel E. Sabath, MD, PhD**

University of Washington  
Seattle, WA

This session consists of a series of case vignettes selected to highlight important aspects of the laboratory diagnosis of benign hematological disorders. Half of the time will be spent discussing cases of hemoglobinopathies and thalassemias. The other half will be spent discussing interesting coagulation cases.



- ⇒ Discuss the diagnostic techniques used to diagnose hemoglobin disorders.
- ⇒ Suggest laboratory tests that would be useful in managing a patient with bleeding.
- ⇒ Suggest laboratory tests that would be useful in managing a patient with thrombosis.

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*Session 18*      *8:30-11:45 am*      *Intermediate*      *3 contact hours*

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## Laboratory Support for ECMO (Extracorporeal Membrane Oxygenation)

- **Wayne L. Chandler, MD**  
Seattle Children's Hospital  
Seattle, WA
- **Quincy Lam, MT(ASCP)**  
Seattle Children's Hospital  
Seattle, WA

Extracorporeal membrane oxygenation (ECMO) is used to support the heart and lungs of patients with cardiopulmonary disease. This session will describe the use of ECMO in the pediatric setting, how laboratory medicine is used to support ECMO, and new clinical laboratory research on the causes of bleeding and clotting associated with ECMO.

- ⇒ Describe how ECMO works and the patients it is used on.
- ⇒ Explain how the clinical laboratory is used to support hemostasis and anticoagulation monitoring in ECMO patients.
- ⇒ Describe new ECMO research results related to thrombin generation and microvesicle formation.

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*Session 19*      *8:30-11:45 am*      *Intermediate*      *3 contact hours*

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## Antibiotic Resistance: The Case for Diagnostics to Help Direct Therapy

- **Norman Moore, PhD**  
Abbott Rapid Diagnostics  
Scarborough, ME

One of the greatest global threats is the rising tide of antibiotic resistant bacteria. Yet even with this crisis, many doctors prescribe antibiotics based on symptoms rather than rely on diagnostics that could better define what antibiotic – or even if one is needed at all. Indiscriminate use of antibiotics may lead to other consequences, such as treating for pneumonia can lead to *C. difficile*.

- ⇒ Define the medical significance of antibiotic resistance.
- ⇒ Discuss some of the more common antibiotic resistant pathogens.
- ⇒ Assess some current diagnostic methodologies to help guide treatment decisions.

## Enteric Disease in the US

There are an estimated 211-275 million cases of diarrhea per year in the US with 1.8 million hospitalizations and 3100 deaths. This lecture will discuss the diseases and diagnostic options. Focus will be on new *C. difficile* guidelines.

- ⇒ Describe the health impacts of diarrhea in the US along with the etiological agents responsible
- ⇒ List the enteric pathogens in the US with diagnostic options
- ⇒ Explain the current diagnostic guidelines for *C. difficile*

**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 20      1:30-4:45 pm      Intermediate      3 contact hours*

## **Injecting Culture: How to Create a Thriving Work Environment**

**- Zachary Speron, MS**  
Pima Medical Institute  
Renton, WA

How do we create culture? Culture may fall into an abstract category, but is one of the first things you feel when walking into any company. Individuals all contribute and shape the culture of our organizations, but as leaders, we must sculpt the culture we want through coaching, inspiration, and modeling the passion for what we do. In this session, we will discuss strategies for creating a patient-centered culture of support, ownership, and excellence. Doing this is no easy feat, but we will explore practical tactics and action plans that allow you to work smarter not harder and create an impact in your organization as efficiently as possible. We will change the biggest areas of opportunity where injecting positive culture will allow your organization to Thrive.

- ⇒ Discuss onboarding strategies to learn how to set the pace for your organization through providing relevant information, training, and motivation.
- ⇒ Describe how to implement tactics for establishing trust with employees for transparency and retention, and describe innovative approaches to coaching and managing to different employee competencies and styles.
- ⇒ Develop strategies for establishing a shared vision based on an organizational mission.



*Session 21*

*1:30-4:45 pm*

*Intermediate*

*3 contact hours*

## **Global Warming and Clinical Mycobacterial and Fungal infections**

**- Xuan Qin, PhD, D(ABMM)**

Seattle Children's Hospital  
Seattle, WA

**- Rafael E. Hernandez MD, PhD**

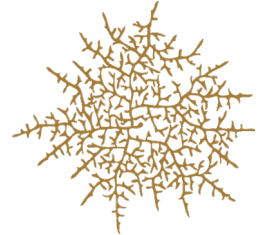
Seattle Childrens Hospital  
Seattle, WA

**- Ben Bradley**

University of Washington  
Seattle, WA

**- Deirdre Ruiz M(ASCP)**

Seattle Children's Hospital  
Seattle, WA



This session will present clinical case incidents and case characteristics associated with non-TB mycobacterial and fungal infections. We will explore the possibility of global warming and increased frequency of forest fires contributing to the increased risks of environmental exposure.

- ⇒ Describe the importance of laboratory workup and timely report in the event of invasive mycobacterial and fungal infections.
- ⇒ Discuss the importance of environmental surveillance cultures.
- ⇒ Describe the ever changing taxonomy and online resources.

*Sponsor: Seattle Children's Hospital*

*Session 22*

*1:30-4:45 pm*

*Intermediate*

*3 contact hours*

## **You Are What You Eat. Good Nutrition for Everyone**

**- Katy Wilkens, MS, RD**

Northwest Kidney Centers  
Kenmore, WA

What is healthy eating? What are good and bad foods? How can you change your diet and your family's diet to be healthier? Learn how to spot good choices from bad, and how to help yourself make better choices more often. The speaker is a clinical registered dietitian.



## **Men in Black: Interpreting Lab Values in Renal Failure**

What does the world of dialysis look like? What is KT/V? What is URR? What is a PET test? How are the results produced in the lab used to guide clinicians and patients to make better choices in their care.

- ⇒ List three ways to modify your diet to be healthier and describe three ways to decrease sodium in your diet.
- ⇒ List 3 laboratory values significantly impacted by stage of kidney disease.
- ⇒ Discuss issues with albumin testing in ESRD.

*Session 23*

*8:30-11:45 am*

*Intermediate*

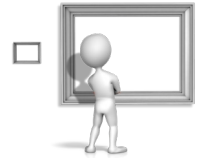
*3 contact hours*

## **Creating Leaders Out of Entry Level Employees**

**- Michael Juretich, MT (ASCP), MBA**

ARUP Laboratories  
Salt Lake City, UT

A detailed outline of how to manage entry level employees with a focus on teaching leadership skills through the development of highly effective teams. This discussion will focus on the “basics” of employee management with clear justifications for why these techniques work. The course will offer “advanced” techniques for dealing with difficult or problematic personalities and situations.



- ⇒ Develop a management plan for success across generation, culture, and gender.
- ⇒ Describe the need to create opportunities for entry level employees.
- ⇒ Create a plan for developing highly effective leaders.

*Sponsor: ARUP Laboratories*

*Session 24*

*8:30-11:45 am*

*Intermediate*

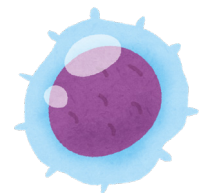
*3 contact hours*

## **Pediatric Hematopathology Cases**

**- Min Xu, MD, PhD**

Seattle Children's Hospital  
Seattle, WA

In this session we will first conduct an overview of pediatric lymphoblastic leukemia. Then we will discuss germline GATA2 mutation associated disorders. Finally, we will examine bone marrow findings in pediatric autoimmune disorders.



- ⇒ Diagnose acute lymphoblastic leukemia and describe the current treatments.
- ⇒ Describe genetic predisposition of GATA2 mutation.
- ⇒ Describe bone marrow finding in pediatric patients with systemic lupus erythematosus.



## **Phlebotomy and Beyond - Career Advancement in Laboratory Medicine: Phlebotomy - CLA - MLT - MLS**

**- Sue Seegers, B.S. MT**

Shoreline Community College  
Shoreline, WA

Career opportunities will be discussed for phlebotomists seeking to advance their education and employment in the laboratory medicine field. Educational requirements will be reviewed to continue in lab medicine from phlebotomist to Clinical Lab Assistant to Medical Lab Technician and Medical Lab Scientist. Job responsibilities and certification will be explained.

- ⇒ Outline of educational requirements for career advancement in lab medicine.
- ⇒ Describe the different roles of the phlebotomist, CLA, MLT and MLS.
- ⇒ List school programs available in Washington and BOC information.

## **Advanced Phlebotomy Techniques**

**- Erika Ferreri (MAED, BSBM, AAPT, AAPI)**

Edmonds Community College  
Edmonds, WA

This session goes over advanced phlebotomy techniques used with challenging patient populations. There will be hands-on activities, demonstrations, and an open discussion forum to share best practices.

- ⇒ Describe advanced blood draw techniques that may be used to obtain blood samples from difficult patient populations.
- ⇒ Reflect on basic venipuncture knowledge and identify modifications that might be needed to help increase blood collection accuracy.
- ⇒ Differentiate venipuncture techniques that go against CLSI standards versus ones that are in compliance.

### **Handouts**

Handouts are only available online at [www.asclswa.org](http://www.asclswa.org). Several weeks before the seminar, registrants will receive an email from [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net) with session confirmations and instructions for accessing the handouts. Be sure to print them and bring them with you to the meeting. No handouts will be available onsite.

## **Practical Applications of Quality Control**

**- Michael Toyoshima, BSMT(ASCP)SC, CLS**

Quality Systems Division, Bio-Rad Labs  
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.

- ⇒ Reliably derive QC statistics and ranges and explain selected Westgard rules and their behavior.
- ⇒ Discuss use of CVR and SDI to estimate imprecision and bias, respectively.
- ⇒ Use resources to determine the correct data configuration and consider different ways to capture blood bank, microbiology and infectious disease QC.

*Sponsor: Bio-Rad Laboratories*



### **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.*

## **Antimicrobial Susceptibility Testing Challenges and Diagnostic Stewardship**

**- Punam Verma, PhD, D(ABMM), MT(ASCP)**

Virginia Mason Medical Center  
Seattle, WA

**- Tracie Rose, MT(ASCP)SM**

Virginia Mason Medical Center  
Seattle, WA

This informative session will focus on emerging resistance mechanisms, their detection and clinical implications. This session will also include a review of the latest CLSI AST/reporting recommendations and concepts of diagnostic stewardship.

- ⇒ Recommend laboratory techniques appropriate for detection of antimicrobial resistance mechanisms of problematic bacterial pathogens.
- ⇒ Identify the major changes found in the new CLSI standards for antimicrobial susceptibility testing.
- ⇒ Review the definition and concepts of diagnostic stewardship.

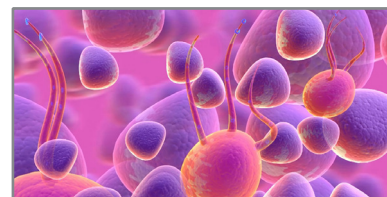
## **Cytologic Evaluation of Body Fluids**

**- Annette Sabath, MD**

Kaiser Permanente  
Seattle, WA

The speaker will present a basic review of major principles of laboratory body fluids evaluation, including physiology of various body fluids formation and diseases association, with emphasis on Cytological evaluation with proper collection, fixation, and preparation requirements; review of normal and abnormal cell components of body fluids, with expanded cytomorphological rules and patterns to tell benign from malignant cells and their mimickers.

- ⇒ Describe the basic physiology of body fluids formation and discuss the association/s of major diseases with abnormal body fluid formation.
- ⇒ Identify appropriate methods for body fluid collection and requirements for body fluids processing in the laboratory for Cytological evaluation and identify normal cells in various body fluids.
- ⇒ Discuss the major principles and approach to cytomorphological evaluation of cells to tell benign from malignant.



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*Session 29*

*1:00-4:15 pm*

*Intermediate*

*3 contact hours*

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## **Are You Current with Your GP41 CLSI Phlebotomy Standards?**

**- Erika Ferreri, MAED, BSBM, CPT, CPI**

Edmonds Community College  
Edmonds, WA

The speaker will present the new CLSI Phlebotomy standards and how they are different from the former Phlebotomy CLSI standards. The speaker will reserve the last 1.5 hours as a interactive Q&A session with phlebotomy equipment.

- ⇒ Define the current CLSI standards regarding venipuncture procedures.
- ⇒ Explain the differences between the new and old standards and the basis for the change.
- ⇒ Identify resources to reference the new CLSI standards.

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*Session 30*

*1:00-4:15 pm*

*Intermediate*

*3 contact hours*

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## **What's New With CLSI Documents**

**- Luann Ochs, MS**

Clinical & Laboratory Standards Institute  
Wayne, PA

This session includes several parts. First we will discuss New and Revised CLSI Documents with a general overview of recently published new or revised CLSI documents, including what changes have been made. Next we will look at EP06, Verification of Linearity Simplified which covers how to do linearity verification using simplified methods that are described in the new EP06 documents. Next is QMS20, Cost of Quality which covers how to determine the cost of poor quality within the laboratory.

- ⇒ Describe the content of new or recently revised CLSI documents.
- ⇒ Outline new recommended methods for verifying linearity.
- ⇒ Describe the importance of determining the cost of quality, and methods for doing so.

Note: This session is also offered on Wednesday, as Session 6.

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*Sponsor: Clinical & Laboratory Standards Institute*

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# **Our Awesome Sponsors**

The 2019 Northwest Medical Laboratory Symposium would like to extend its sincere thanks to the following companies and organizations for their support.



***Abbott Rapid Diagnostics***

***ARUP Laboratories***

***Beckman Coulter, Inc.***

***Becton, Dickinson and Company***

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***InCyte Pathology***

***Newport Hospital and Health Services***

***North Puget Sound Society for Clinical Lab Science***

***Seattle Children's Hospital***

***Siemens Healthineers***

***WA State DOH***

# EXHIBITORS & EXHIBIT HALL INFORMATION

The leading manufacturers and distributors will once again gather in the Exhibit Hall at the Lynnwood Convention Center to display their wares. This will be the 34th 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  
Abbott Raid Diagnostics  
ARKRAY  
ARUP Laboratories  
AUDIT MicroControls, Inc.  
BD  
Beckman Coulter  
bioMerieux, Inc.  
Cepheid  
Delivery Express  
DiaSorin Inc.  
DiaSorin Molecular, Inc.  
Drucker Diagnostics  
General Water Technologies  
GenMark Diagnostics  
Hardy Diagnostics  
Instrumentation Laboratory  
Luminex Corporation  
Ortho Clinical Diagnostics  
Radiometer America  
Randox Laboratories-US, Ltd.  
Samaritan Health Services  
Stago  
Sysmex America  
ThermoFisher Scientific  
University of Washington  
WSLH Proficiency Testing

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## EXHIBIT HOURS

Wednesday, October 9	Exhibit Opening	11:45 AM – 2:15 PM
Thursday, October 10		11:45 AM – 2:15 PM
Friday, October 11	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>	
<b>Abbott Rapid Diagnostics</b>	ID Now Rapid Molecular 2-Minute Strep and 5-Minute Flu Tests
<b>ARKRAY</b>	ADAMS A1c HA-8180V
<b>ARUP Laboratories</b>	
<b>AUDIT MicroControls, Inc.</b>	Linearity DROP LQ TIBC for Ortho Vitros (Order# K905M-5) Linearity LQ Galectin-3 (Order #K760M-5) Control LQ Galectin-3 (Order #K081M-6) Linearity FD Special Diabetes for Ortho Vitros (Order# K909M-5)
<b>BD</b>	
<b>Beckman Coulter</b>	MicroScan Walkaway DxM Microbiology Analyzer, DxH 900 Hematology Analyzer, ESid (Early Sepsis Indicator)
<b>bioMerieux, Inc.</b>	Virtuo Vitek
<b>Cepheid</b>	CLIA Waived Xpress FLU, FLU/RSV & Strep A Xpert CT/NG with Throat & Rectal sample approvals New Clinical Solution Services
<b>Delivery Express</b>	Courier Service, Delivery Service, Warehousing, Driver Coverage, Driver Replacement, Fleet Replacement,
<b>DiaSorin Inc.</b>	
<b>DiaSorin Molecular, Inc.</b>	
<b>Drucker Diagnostics</b>	APEX DASH STAT Centrifuge NEW Horizon Routine Centrifuge Line SampleSafe Insulated Lockboxes
<b>General Water Technologies</b>	
<b>GenMark Diagnostics</b>	BCID Panels ePlex system
<b>Hardy Diagnostics</b>	
<b>Instrumentation Laboratory</b>	ACL TOP Family 50 Series Instruments HemoCell Specialized Lab Automation The first fully automated on-demand assay for HIT testing.
<b>Luminex Corporation</b>	
<b>Ortho Clinical Diagnostics</b>	
<b>Radiometer America</b>	
<b>Randox Laboratories-US, Ltd.</b>	
<b>Samaritan Health Services</b>	
<b>Stago</b>	Expert Core
<b>Sysmex America</b>	
<b>ThermoFisher Scientific</b>	
<b>University of Washington</b>	

Exhibitor	Products
<b>WSLH Proficiency Testing</b>	Offering these new PT programs for 2020: HPV Molecular, India Ink, Meningitis Multiplex, Legionella Antigen, Mycoplasma genitalium Molecular, Rubella IgM, Hemoglobin-HemoCueHb 801, Urine Drug Screen - Ethyl glucuronide, INR-Coag Sense and Infectious Disease Serology.



## Registration General Information

### To Register by Mail:

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

2019 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: September 23, 2019** 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/NWMLS.html](http://www.asclswa.org/NWMLS.html). 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 1, 2019 to receive lunch if eligible.
- **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/NWMLS.html](http://www.asclswa.org/NWMLS.html) 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 September 24, 2019. If booking after September 24, 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 page 35.

# Registration Form

**2019 Northwest Medical Laboratory Symposium**

October 9 - 12, 2019  
Lynnwood, WA

*Online registration and credit card payment is available at  
[www.asclswa.org/NWMLS.html](http://www.asclswa.org/NWMLS.html)  
or  
For mail registration send this form with a check.*

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

Address \_\_\_\_\_

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

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 9	AM	1	2	3	4
	PM	5	6	7	8
Thursday, Oct 10	AM	9	10	11	
	PM	12	13	14	15
Friday, Oct 11	AM	16	17	18	19
	PM	20	21	22	
Saturday, Oct 12	AM	23	24	25	26
	PM	27	28	29	30

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</b> .....		\$35.00	\$
<b>Student</b> .....		\$25.00	\$
<b>Total Fee</b> .....			\$

Mail with check to  
**2019 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 September 23 to assure timely arrival

**OR**

Online registration with credit card payment is available at  
**[www.asclswa.org](http://www.asclswa.org)**, click on **NWMLS**

# 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 Lynnwood Convention Center is 425-775-7600..

## 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/NWMLS.html](http://www.asclswa.org/NWMLS.html)

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-WA is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® program. ASCLS-WA 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 December 1, 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 [www.asclswa.org/NWMLS.html](http://www.asclswa.org/NWMLS.html). Click on the "Handouts" 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 access will be provided for those that register onsite, but you will need to download them. If you plan to register onsite, please contact Brenda Kochis at [BrenKoch@comcast.net](mailto:BrenKoch@comcast.net) for information regarding handout access.