<table>
<thead>
<tr>
<th>Time</th>
<th>Wednesday, Apr 21</th>
<th>Thursday, Apr 22</th>
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<tbody>
<tr>
<td>8:00 - 9:00 am</td>
<td>Molecular Testing at Point-of-Care</td>
<td>Hemostasis Testing in Patients with COVID-19: An Overview of Breaking Literature</td>
<td>Updates in Bacterial Vaginosis and Trichomoniasis 2021</td>
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<td>9:30 - 10:30 am</td>
<td>Antibiotic Resistance: Basics and Emerging Public Health Threats</td>
<td>Immunoassay Testing Solutions to Battle the COVID-19 Pandemic</td>
<td>Demystifying Lupus Anticoagulants</td>
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<td>11:00 am - 12:00 pm</td>
<td>Procalcitonin in the Management of Sepsis</td>
<td>Coronavirus and the Kidneys: Electrolyte Abnormalities, AKI, and CKD in COVID-19</td>
<td>Antibiotic Stewardship Programs – What about the #MedicalLaboratory?</td>
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<tr>
<td>12:00 - 1:00 pm</td>
<td>Break</td>
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<td>1:00 - 2:00 pm</td>
<td>Efficient Email Communication for Professionals in all Fields</td>
<td>Microscopy of CSF and Body Fluids</td>
<td>Drug-Induced Hemolytic Anemia (DIHA)</td>
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<td>Vitek Advanced Expert System</td>
<td>Safety Topics - Surviving 2020</td>
<td>Clinical Platelet Transfusions</td>
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<td>5:00 - 7:00 pm</td>
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*Presented by the Alaska, Oregon, and Washington ASCLS State Societies*
8:00 - 9:00 AM

Molecular Testing at Point-of-Care

- Norman Moore, PhD
  Abbott North Berwick, ME

Newer technologies are now available at the point-of-care setting. This talk will discuss the pros and cons of newer technologies and apply them to certain disease states. When it comes to infectious disease testing, sometimes answers are not black-and-white.

- Describe the importance of overprescribing antibiotics and how newer technology devices may help.
- Discuss the general mechanisms behind the new tests.
- Discuss that infectious disease testing does not always allow for easy answers.

Sponsor: Abbott

9:30 - 10:30 AM

Antibiotic Resistance: Basics and Emerging Public Health Threats

- Jean B. Patel, PhD, D(ABMM)
  Beckman Coulter Microbiology West Sacramento, CA

Antibiotic resistance is a critical public health threat. Untreatable infections are occurring in healthcare institutions globally. Preventing infection starts in the laboratory. Detection is an essential component in prevention. In this session we will discuss the drivers of antibiotic resistant pathogens, the types of infections that they cause and how to detect the pathogens in the laboratory.

- Describe how antibiotic use selects for antibiotic resistant infections.
- List important antibiotic resistant pathogens and the types of infections they cause.
- Implement testing strategies to improve the detection of antibiotic resistant pathogens.

Sponsor: Beckman Coulter Microbiology

11:00 am - 12:00 pm

Procalcitonin in the Management of Sepsis

- Monet Sayegh, MD
  Siemens Healthineers Los Angeles, CA

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

- Describe the role of procalcitonin as a prognostic indicator for morbidity and mortality.
- Identify disease states where procalcitonin testing can add significant clinical value.
- Describe the differences between the systemic inflammatory response (SIR) and sepsis, severe sepsis, and septic shock.
- Describe the urgency associated with assessing procalcitonin levels.

Sponsor: Siemens Healthineers
1:00 - 2:00 PM  Session 4  1 Contact Hour

**Efficient Email Communication for Professionals in all Fields**

- **Ginger Weeden, MT(ASCP)**
  Set In Motion Marketing & Media  Bend, OR

We frequently fall into the trap of writing the way we talk. Stressed out from time constraints and heavy responsibility, it is difficult to make yourself stop and think before you type an email.

But it is important--one might even say imperative, in your field--that you are clear, concise, and unemotional in delivering information to colleagues, peers and, particularly, superiors.

- **Describe how to compose an email in a way that**
  1) helps you think clearly about the information that is most important,
  2) how you can organize it to be read and understood immediately
  3) how subject lines help you and your recipient understand what to expect in the email.

2:30 - 3:30 PM  Session 5  1 Contact Hour

**Public Health Risk From Urban Wildlife in Alaska: “What is in Your Backyard?”**

- **Grace Leu-Burke MSCLS MT(ASCP)**
  University of Alaska Anchorage  Anchorage, AK

Close proximity to wildlife in Alaska requires evaluation of public health risk, especially the potential for human colonization from fecal contaminated soil. Since 2017, the MLS department at the University of Alaska Anchorage has conducted microbial surveillance of fecal environmental contamination from wildlife including, geese, bear, moose, and caribou.

- **Evaluate the potential for soil contamination when wildlife inhabit urban green spaces.**
- **Discuss the surveillance methods to determine fecal bacterial colonization and antimicrobial resistance.**
- **Assess potential for colonization of bacteria from aerosol soil exposure as a public health risk to domesticated animals and humans.**

*Sponsor: University of Alaska Anchorage*

4:00 - 5:00 pm  Session 6  1 Contact Hour

**Vitek Advanced Expert System**

- **Jennifer Anderson, MPH, MLS(ASCP)CM**
  bioMerieux  Vancouver, WA

This session will focus on the Vitek Advanced Expert System (AES). It is appropriate for current, potential, and future Vitek users. We will cover the following topics: Phenotype and MIC Distribution, AES Decision Making Process, Antimicrobial Susceptibility Testing (AST) Results and Confidence Indicators

- **Define the Advanced Expert System™ (AES), Phenotype and MIC Distribution.**
- **List the steps in the AES decision making process.**
- **Explain proposed corrections to Antimicrobial Susceptibility Testing (AST) results and understand confidence indicators.**

*Sponsor: bioMerieux*
Hemostasis Testing in Patients with COVID-19: An Overview of Breaking Literature

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

The balance of hemostasis includes the need to activate the coagulation pathway when necessary, but also to regulate the coagulation pathway to prevent unwanted clot formation, playing a critical role in maintaining blood fluidity for otherwise healthy individuals. In critically ill patients, including those with COVID-19, the balance often falls to one side or another, leading to either bleeding or thrombotic complications.

➤ Describe the basic pathophysiology of COVID-19, along with symptoms, focusing on venous thromboembolism (VTE).
➤ Compare findings from recent publications on hemostasis changes in COVID-19.
➤ Correlate hemostasis changes in COVID-19 to changes commonly observed in patients with disseminated intravascular coagulation (DIC).

Sponsor: Diagnostica Stago, Inc.

Immunoassay Testing Solutions to Battle the COVID-19 Pandemic

- Jared Jaeger, PhD
  Ortho Clinical Diagnostics Springfield, MO

The session will discuss Immunoassay testing solutions that can help the lab and physicians battle the COVID-19 pandemic. Viral structure and assay design will be discussed. Both Antigen and Antibody testing will be discussed.

➤ Describe the SARS-CoV2 antigen structure.
➤ Outline how assay designs target antigen regions.
➤ Describe the timing and impact of Antigen and Antibody testing.

Sponsor: Ortho Clinical Diagnostics

Coronavirus and the Kidneys: Electrolyte Abnormalities, AKI, and CKD in COVID-19

- Dennis Begos, MD, FACS
  Nova Biomedical Waltham, MA

This session will describe the effects of COVID-19 on the kidneys and electrolytes. We will explore electrolyte changes, their etiologies, and prognostic effects in patients with COVID-19. Specifically, we will examine prognostic effects of hyponatremia and hypokalemia, and the impact of magnesium on the outcome of the disease course. We will also examine acute kidney injury (AKI) due to the coronavirus, and also its effects on patients with existing chronic kidney disease (CKD).

➤ Identify patients at risk for severe COVID-19 based on their admission labs.
➤ Recognize the significance of potassium, sodium, and magnesium on the disease course.
➤ Describe the risk of AKI in COVID.
➤ Discuss the impact of CKD on disease prognosis, and develop strategies to help attenuate its effects.

Sponsor: Nova Biomedical
1:00 - 2:00 PM  
**Session 10**  
1 Contact Hour

**Microscopy of CSF and Body Fluids**

- **Tracy I. George, MD**  
  ARUP Laboratories and University of Utah, Salt Lake City, UT

In this lecture Dr. Tracy George focuses on the microscopy of cerebrospinal fluid, pleural fluid, peritoneal fluid, and pericardial fluid. Both normal and abnormal cell types will be shown and features that help distinguish benign from malignant cytology will be discussed. Recommendations for additional ancillary studies will also be explored.

- Define transudate versus exudate and how this is used to help define the etiology of a body fluid.
- Distinguish benign from malignant cytology in CSF and body fluids.
- Explore the variability of mesothelial cell morphology.

**Sponsor: ARUP Laboratories**

2:30 - 3:30 PM  
**Session 11**  
1 Contact Hour

**Method Verification – Hopefully Some Helpful Tips!!**

- **Steve LaCroix, MS, CBSP**  
  WA Public Health Laboratories  Shoreline, WA

We will cover some basics regarding method verification and validation. We will review what has worked for us and what you need to do to produce quality data. You will be able to take back to your lab some steps and tools to get you thru the verification process.

- Identify components needed for verification and validation.
- Take some learning points and tools back to their labs.
- Discuss how the verification process improves laboratory service.

**Sponsor: WA Public Health Laboratories**

4:00 - 5:00 pm  
**Session 12**  
1 Contact Hour

**Safety Topics - Surviving 2020**

- **Heather Matthies, MS**  
  WA Public Health Laboratories  Shoreline, WA

Safety during a pandemic, lessons learned and future choices for 2021 and beyond. In this session, the speaker will discuss how to proceed from a safety aspect when unexpected events occur or when Mother Nature throws a curve ball as in the case of a pandemic; how to manage difficult people who may not always want to comply with safety protocols; and safety and the supply chain.

- Discuss strategies on how to handle unexpected safety events.
- Implement techniques for managing difficult people.
- Describe how safety events impact the supply chain.

**Sponsor: WA Public Health Laboratories**
Updates in Bacterial Vaginosis and Trichomoniasis 2021

- Christina Muzny, MD, MSPH
  University of Alabama, Birmingham, AL

This session will focus on updates in pathogenesis, epidemiology, diagnosis, and treatment of the common vaginal infections, bacterial vaginosis (BV) and trichomoniasis. Updates regarding these infections in the 2021 CDC STD Treatment Guidelines will be reviewed. Case presentations will also be included.

- Describe the global epidemiology of BV and trichomonas.
- Recognize all currently available diagnostic options for these infections.
- Discuss new treatments and updated treatment recommendations for these infections.

Demystifying Lupus Anticoagulants

- Katherine (Katy) Whelchel, MT(ASCP)SH
  Diagnostica Stago Rogers, AR

Lupus anticoagulants may be present in many clinical situations. Lupus testing is a critical component of a thrombophilia workup. We will discuss both the clinical context and the laboratory's role in diagnosing this disorder.

- Describe the role of Lupus Anticoagulant in thrombosis.
- Review basic coagulation in relation to lupus anticoagulants.
- Present lupus testing guidelines and discuss a lupus testing algorithm.

Antibiotic Stewardship Programs – What about the Medical Laboratory?

- Rodney E. Rohde, PhD SM (ASCP)CM, SVCM, MBCM, FACSc
  Texas State University San Marcos, TX

Antimicrobial stewardship is a bundle of integrated interventions leveraged to optimize the use of antimicrobials in medical and healthcare environments. Usually, infectious-disease-trained physicians, with clinical pharmacists, are considered the main leaders of antimicrobial stewardship programs (ASPs). However, medical laboratory professionals and clinical microbiologists can and should play a key role in an ASP. This presentation is intended to provide a comprehensive discussion of the different components of antimicrobial stewardship in which microbiology laboratories and clinical microbiologists can make significant contributions, including cumulative antimicrobial susceptibility reports, enhanced culture and susceptibility reports, guidance in the pre-analytic phase, rapid diagnostic test availability, provider education, and alert and surveillance systems. An emphasis will be focused on how the nuances of clinical microbiology has reinforced the importance of medical laboratory professionals' collaboration with ASPs.

- List the key support personnel of antimicrobial stewardship programs (ASPs), including the leaders associated with accountability and drug expertise.
- Summarize the core elements of a hospital antibiotic stewardship program.
- Correlate the various types of interventions and policies to improve antibiotic use with ASPs.
- Discuss the role of the medical laboratory, specifically clinical microbiology, in ASPs.
Drug-Induced Hemolytic Anemia (DIHA)

- Maryam Asif MBBS
  Bloodworks Northwest  Seattle, WA

In this talk we will briefly discuss the history behind our current understanding of drug-induced hemolytic anemia (DIHA). The attendee will also gain an understanding of the technical and laboratory evaluation of DIHA.

- Discuss the various mechanisms of DIHA and current theories.
- Outline the technical and laboratory evaluation of DIHA.
- Recall the most common causes and management.

Clinical Implementation of Pharmacogenetics and Interpretations of The Outcome

- Mariko Nakano Ph.D.
  Molecular Testing Labs  Vancouver, WA

This session is designed for students, scientists, and technologists who have basic knowledge of genetics, particularly for cytochrome P450 enzymes (P450), and clinical aspect of P450. The P450 genetic test has been widely performed at many hospitals and clinics; however, the interpretation of genetic results is challenging to all healthcare professionals, including doctors, pharmacists, and medical technologists.

We will discuss how to interpret CYP2D6 haplotype results, and how a phenotype of CYP2D6 influences the dosing recommendations.

- Discuss how to determine the star allele of CYP2D6 from individual gene results.
- Describe how to make the phenotype call.
- Identify the differences of dosing recommendation based on phenotypes.

Sponsor: Molecular Testing Labs

Clinical Platelet Transfusions

- Moritz Stolla, MD, PhD
  BloodWorks NW Research Institute  Seattle, WA

This session will give a broad overview of platelets and their utilization for transfusion. We will discuss basic mechanisms of platelet biology, current approaches for platelet preparations, platelet storage, epidemiology of platelet transfusions, indications for platelet transfusions, and important clinical trials that informed transfusion practice.

- Describe platelets and their function.
- List indications for platelet transfusion and usage.
- Discuss platelet storage methods and cold storage platelet research.

Sponsor: BloodWorks NW
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Institution _____________________________________________________________________________________
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Your fee covers all three days of the Spring Seminar.

The live sessions will be recorded and available to registered attendees for 30 days after the meeting.

To Register by Mail:
Complete the registration form and mail the registration form and check payable to **Spring Seminar** to:

2021 Joint Spring Seminar
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).

To Register Online:
Go to [www.asclsr9.org](http://www.asclsr9.org) Click on “Online Registration” to go to the online form. Credit cards can be used to pay for registration.

Registration Deadline: **April 19, 2021**
This deadline is to allow us to provide the information for access to the Virtual NWMLS.