# *ASCLS-Washington Spring Seminar*

## Lynnwood Convention Center
## Lynnwood, WA
## April 24 - 26, 2008

# Welcome to the 2008 ASCLS-Washington Spring Seminar

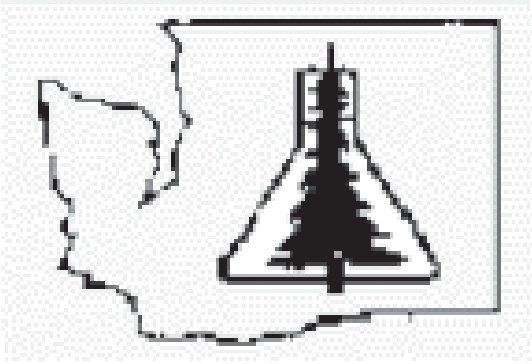
Welcome to the 2008 ASCLS-Washington Spring Seminar!

The North Puget Sound Society for Clinical Laboratory Science is proud to host the Annual ASCLS-WA Spring Seminar for 2008 in Lynnwood. We invite our colleagues in the laboratory profession to join us in Lynnwood, Washington at the Lynnwood Convention Center for three days of high quality, informative continuing education. This meeting will provide you with the opportunity to update your knowledge of cutting edge topics and refresh your skills in core laboratory areas.

I would like to thank all those involved for generously giving their time and expertise, and for their commitment to the profession to produce a premier continuing education meeting of this caliber for laboratory professionals.

I look forward to welcoming you to the 2008 Spring Seminar. Spend some time networking, learn lots, and above all else, have a great time.

Leonard Kargacin
General Chair



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## Spring Seminar Committee

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ASCLS-WA Board Meeting and House of Delegates
Friday, April 25, 5:00 PM

## Northwest State Society of the American Medical Technologists

NWSSAMT Board Meeting/General Meeting
Friday, April 25, 5:30 PM - 7:30 PM

The program and any updates are available on the web at the following URL: http://www.asclswa.org

Please keep this program and bring it with you to the Seminar. Only a limited number will be available at the registration desk.

## Session Information

**Registration hours** are
7:30 - 8:30 AM
12:00 - 1:00 PM

**Scientific Sessions** are
8:30 AM - 12:00 noon
1:00 PM - 4:30 PM.

**Coffee Breaks** are
10:00 - 10:30 AM
2:30 - 3:00 PM.

**Lunch** is from 12:00 - 1:00 PM each day

Those preregistered for an AM and a PM Session on the same day will be provided with lunch. Please see the explanation page on page 24 for more information.

**Name badges** are required for admission to all sessions.

**Smoking**: There is no smoking during any of the sessions.

**Dress**: Casual business dress is appropriate.

**Cell Phones/Pagers:** As a courtesy to the speakers and registrants, all cell phones and pagers must be turned off during the sessions.

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

## Session Accreditations

**P.A.C.E. and AMTIE** 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. Additionally, ASCLS-WA is approved as a provider for California clinical laboratory licensees under P.A.C.E. California accrediting agency license number 0001.

NWSSAMT is the approved provider for AMTIE CECs and insures these educational presentations conform to standards established by AMTIE.

Be prepared to list your membership number (ASCLS) or your social security number (AMT).

# SPONSORS:

**The 2008 ASCLS-Washington Spring Meeting would like to extend its sincere thanks to the following companies and organizations for their support.**

**Abbott Diagnostics**

**ARUP Laboratories**

**Beckman Coulter, Inc.**

**Cepheid**

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**MedTox, Inc.**

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**Roche Diagnostics Corporation**

**Seattle Society for Clinical Laboratory Science**

**Siemens Medical Solutions Diagnostics**

**Washington State Department of Health Laboratory Quality Assurance**

**Washington State Department of Health Public Health Laboratories**

## Convention Center Information

Lynnwood Convention Center
3711 196th Street SW
Lynnwood, WA 98036

Toll Free: 888-778-7155
Fax: 425-778-7965
Website: http://www.lynnwoodcc.com

The Lynnwood Convention Center has 600 free parking places.

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)
Turn Right onto 36th Avenue W (Parking lot is immediately behind the Convention Center)

DIRECTIONS FROM EVERETT:
Take I-5 South
Take Exit 181 West
Drive West one block (Convention Center is on the right)
Turn Right onto 36th Avenue W (Parking lot is immediately behind the 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)
Turn Right onto 36th Avenue W (Parking lot is immediately behind the Convention Center)

# Hotel Information

La Quinta Hotel-Lynnwood
4300 Alderwood Mall Blvd
Lynnwood, WA 98036

Phone: 425-775-7447
Fax: 425-775-8063
Website: http://www.lq.com

The Hotel will honor the following overnight room rates:

$89.00 for single occupancy
$89.00 for double occupancy
Hotel room rates are subject to applicable state and local taxes.

**Reservations:** Call the hotel at 1-425-775-7447. You must request the ASCLS-Washington group rate to obtain the listed room rate. The group rate will be honored until **April 4, 2008**

There is no charge for parking at the La Quinta Hotel - Lynnwood.

DIRECTIONS FROM SEATTLE:
Take I-5 Northbound
Take Exit 181A to 44th Avenue West
Turn left at traffic light at the bottom of the ramp (44th Avenue W)
Turn Right at the 2nd stoplight to Alderwood Mall Blvd (200th Street SW)
Turn Right into the La Quinta Hotel parking lot on the right

DIRECTIONS FROM EVERETT:
Take I-5 Southbound
Take Exit 181 (196th Street SW ) **GO WEST**
Merge onto 196th Street SW heading West
Turn Left at the 2nd traffic light to 40th Avenue W
Turn Right onto Alderwood Mall Blvd
Turn Left into the La Quinta Hotel parking lot on the left

DIRECTIONS FROM EASTSITE/BELLEVUE:
Take I-405 Northbound
Merge onto I-5 Southbound
Take Exit 181 (196th Street SW ) **GO WEST**
Merge onto 196th Street SW heading West
Turn Left at the 2nd traffic light to 40th Avenue W
Turn Right onto Alderwood Mall Blvd
Turn Left into the La Quinta Hotel parking lot on the left

## Thursday, April 24, 2008

Session # 1
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Managing for Quality

In this session, Ms. Hudson will discuss the importance of managing your laboratory or department for quality. Quality patient test results begin with a well managed laboratory. Ms. Hudson will discuss the importance of an overall Quality Assurance Program (QAP) and some of its components (quality control, proficiency testing, and QIP monitoring). She will discuss the fundamentals of basic quality control (QC) review using basic statistics, and define the terms mean, SD, SDI, CV, shift, drift, and trend. After defining the terms, the class will review examples of QC summaries and Levy Jennings charts. In addition, Ms. Hudson will discuss the components of a proficiency testing (PT) review program and provide examples of how to perform an effective review of PT data. Finally, she will show how to pull together the QC and PT components into a laboratory-wide quality assurance program to ensure patient safety through quality test results.

At the end of this session, participants will be able to:
- √ Define the following terms: mean, SD, SDI, CV, shift, drift, and trend.
- √ Discuss how to perform an effective review of proficiency testing reports.
- √ Discuss the importance of an effective proficiency testing review program.
- √ Discuss the importance of an effective Quality Assurance Program.
- √ List 3 elements of a Quality Assurance Plan.

**LORI HUDSON, MT(ASCP), CLS(NCA)**
Laboratory Surveyor and Consultant
Washington State Department of Health
Laboratory Quality Assurance
Spokane, Washington

***This session is sponsored by the Washington State Department of Health Laboratory Quality Assurance.***

Session # 2
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### DNA Testing in Forensic Specimens

Forensic Science is one of the most popular topics in U.S. pop culture today, yet many people still ask “is it the same as TV?”. This presentation will focus on basic principles of DNA testing in the forensic setting. It will highlight some of the major issues facing the forensic laboratory and some of Washington’s most interesting cases.

At the end of this session, participants will be able to:
- √ Define forensic science.
- √ Recognize the connection between the clinical and forensic laboratories.
- √ Discuss the use of DNA technologies in the forensic setting.

**MARIAH LOW**
Forensic Scientist
Washington State Patrol Crime Laboratory
Marysville, WA

Session # 3
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

## Current Concepts on Managing a Patient on Heparin

This session will update all attendees on current practice considerations related to establishing appropriate therapeutic ranges as well as in managing patients who are receiving Unfractionated Heparin. Specific detail will be given regarding advantages/disadvantages of utilizing the APTT for this purpose. In addition, the Heparin anti-Xa method of monitoring heparin will be discussed highlighting its' advantages over the APTT. With this information each participant will understand ways to select an appropriate APTT reagent for this indication, to establish an accurate therapeutic range for this APTT reagent, and better understand/order the most appropriate means (APTT vs. Heparin anti-Xa) of monitoring their patients.

Each participant will be more knowledgeable with testing (APTT or Heparin anti-Xa assay) issues related to managing patients who are receiving heparin. This understanding will lead to less dosing changes which in turn will mean that the patient will be appropriately therapeutic for a longer period of time resulting in better thrombotic resolution and patient management outcomes.

With the information gained from this presentation, enhanced patient management will be achieved at a potential decrease in institutional cost. This enhanced patient management will lead to potential cost savings by: decreasing patient testing; decreasing dosing adjustments; reducing risk of potential bleeds; decreasing nursing/pharmacy intervention; and reducing risk of rethrombosis.

At the end of this session, participants will be able to:
- √ Discuss current practice considerations related to establishing appropriate therapeutic ranges as well as in managing patients who are receiving Unfractionated Heparin.
- √ Discuss APTT and Heparin anti-Xa assay issues related to managing patients who are receiving heparin.
- √ Discuss how this enhanced patient management will be achieved at a potential decrease in institutional cost.

**DANIEL A KACZOR**
Director, Advanced Support Group
Diagnostica Stago, Inc.
Parsippany, NJ

## D-Dimer Analysis: Review and Current Considerations

This session will review the D-Dimer analyte and its measurement. The change of emphasis in the use of this analyte as applied to clinical diagnosis of coagulation related disease will be discussed. Current CAP Checklist questions related to D-Dimer measurement will be reviewed and interpreted

At the end of this session, participants will be able to:
- √ Define what a D-Dimer is and its units of measurement.
- √ Describe the various methodologies for measurement of D-Dimer.
- √ List the clinical conditions that D-Dimer testing monitors.
- √ Review the concept of algorithms used in diagnosis of PE/DVT.
- √ Discuss the CAP Inspection Checklist questions regarding the use of D-Dimer testing.

**DIANA NELSON, MT(ASCP)SH**
Advanced Technical Support-Western United States
Diagnostica Stago, Inc.
Parsippany, NJ

***This session is sponsored by Diagnostica Stago, Inc.***

Session # 4
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

## Community Acquired Methicillin Resistant *Staphylococcus aureus* (CA-MRSA)

In this portion of the program, Dr. Tu will focus on the clinical presentation, treatment, and biology of CA-MRSA.

At the end of this portion of the session, participants will be able to:
- √ Describe the differences between hospital and community acquired MRSA.
- √ List the most important steps in the diagnosis and treatment of skin and soft tissue infection today.
- √ Discuss how CA-MRSA should influence the infection control practices in your clinic.

**YUAN-PO TU, DVM, MD**
Associate Medical Director, Walk in Clinic
Medical Director for Advanced Imaging,
The Everett Clinic
Everett, WA

## Influenza

In this portion of the program, Dr. Tu will discuss the clinical presentation, treatment, and biology of Influenza.

At the end of this portion of the session, participants will be able to:
- √ Describe the difference between epidemic and pandemic influenza.
- √ List the different mechanisms by which antigenic drifts and shifts occur.
- √ Describe why influenza vaccination needs to be repeated yearly.
- √ Describe the level of protection provided by influenza vaccination.

**YUAN-PO TU, DVM, MD**
Associate Medical Director, Walk in Clinic
Medical Director for Advanced Imaging
The Everett Clinic
Everett, WA

## Methicillin Resistant *Staphylococcus aureus* (MRSA) in a Hospital Setting: What's it Gonna Cost Me?

This session will provide a broad overview of costs associated with MRSA surveillance, or lack thereof, in a hospital setting. It will also discuss multiple laboratory methods for a MRSA surveillance program.

At the end of this portion of the session, participants will be able to:
- √ Discuss examples evaluating the cost-benefit of MRSA surveillance.
- √ Describe various laboratory methods that can be implemented in a MRSA surveillance program.

**AMANDA HARTINGTON, PHD**
VA Puget Sound Health Care System
Seattle, WA

Session # 5
8:30 AM - 12:00 PM
3 Contact Hours
Basic

## Lab Zebras: Weird Laboratory Case Studies

Pre-analytical events can have great influence on laboratory testing to the point that the results are too strange to believe. This session discusses some example cases where strange pre-analytical influences went undetected until some time after testing occurred.

At the end of this session, participants will be able to:
- √ Recite some of the potential pre-analytical influences on a some popular laboratory tests.
- √ Describe some of the strategies used to unravel these cases to mount effective investigations in the future.
- √ Describe that there is no such thing as something being too weird to impact testing!

**JIM PETERSON, PHD**
NW Director, Quality Assurance
Quest Diagnostics Incorporated
Seattle, WA

**This portion of the program is sponsored by Quest Diagnostics**

## Hormones in Saliva: Testing and Interpretation

The history of saliva testing and comparison of saliva and serum/plasma levels for a variety of hormones will be described. Hormone profiles for different conditions will be presented and examples of normal and abnormal results will be shown. Use of saliva testing in fertility determination, stress related problems, and menopause will be illustrated. Collection devices will be explained and participants will be able to try different devices and explain their differences.

At the end of this portion of the program, participants will be able to:
- √ Describe why hormones are in saliva and which hormones are in saliva.
- √ Define for what conditions saliva testing is particularly advantageous.
- √ Describe advantages and disadvantages of different collection techniques.

**LINDSAY F. HOFMAN, PHD, DABCC**
S.T.A.R. Laboratory
Seattle, WA

Session # 6
1:00 PM - 4:30 PM
3 Contact Hours
Basic

## Cost Accounting 101 – How to Determine Your Real Costs of Testing

This seminar will review basic cost accounting of testing procedures. You will learn the basic cost accounting terminology such as indirect, direct, and incremental costs. You will learn where your hidden costs are and how important it is to capture these costs when pricing your services, since margins (profit) for testing can be very low.

At the end of this session, participants will be able to:
- √ List basic financial terms for cost accounting.
- √ Discuss how to find the hidden costs for testing.
- √ Describe how to cost account their procedures.

**LAWRENCE CROLLA, PHD, DABCC**
Adjunct Assistant Professor
Department of Pathology at Loyola UniversityMedical Center, Maywood, IL
Consulting Clinical Chemist , Northwest Community Hospital
Arlington Heights, IL

***This session is sponsored by Siemens Medical Solutions Diagnostics.***

Session # 7
1:00 PM - 4:30 PM
3 Contact Hours
Intermediate

## Actionable Cardiovascular Healthcare Information

This program is designed to cover aspects such as prevalence of heart failure, physiologic characteristics of heart failure, storage and release of natriuretic peptides, B-type in particular, and the applications of results. B-type natriuretic and Troponin will be covered as they apply to the acute coronary syndrome patient. The lecture will differentiate BNP, ProBNP, TnI, and TnT.

At the end of this session, the participant will be able to:
- √ State the epidemiology of heart failure.
- √ Define physiologic characteristics of heart failure.
- √ Describe physical conditions resulting in elevated natriuretic peptide.
- √ Discuss risk stratification of heart failure and acute coronary syndrome using B-type natriuretic peptides and troponin.
- √ Discuss the role of B-type natriuretic peptides in early heart failure.
- √ Describe differences in Troponin tests, relative to the ACC/AHA Guideline.

**NORMA J. NEWCOMB, B.S., R.C.I.S.**
Regional Clinical Specialist
Roche Diagnostics Corporation
Indianapolis, IN

***This session is sponsored Roche Diagnostics Corporation.***

Session # 8
1:00 PM - 4:30 PM
3 Contact Hours
Intermediate

## Thrombosis and Thrombophilia

Thrombotic disease is one of the major causes of death in the United States. Our knowledge of this disease has increased dramatically in the past ten years with the advances in genetic testing. This seminar is designed to take the participants through the fundamentals of thrombophilia and into the laboratory diagnosis and treatment.

At the end of this session, participants will be able to:
- √ Describe the thrombotic disease states.
- √ Define the biological basis for hypercoaguability and thrombosis.
- √ Discuss acquired and inherited thrombophilia.

**CATHY WOODMAN SPEER, MT(ASCP), CLS**
Hemostasis Specialist
Beckman Coulter, Inc.
Gridley, CA

***This session is sponsored by Beckman Coulter, Inc.***

Session # 9
1:00 PM - 4:30 PM
3 Contact Hours
Intermediate

## Connecting the Dots—Foodborne Disease Outbreak Investigation

Have you ever wondered what happens during an outbreak? Come along as staff from the Washington State Department of Health takes you through the process of an outbreak investigation. Find out about the behind the scenes work that takes place before you see the 6:00 o'clock news.

At the end of this session, participants will be able to:
- √ Understand the clinical laboratory's role in outbreak investigation.
- √ Discuss the methods for characterizing outbreak isolates.
- √ Discuss new and old methods for isolating organisms from food sources.
- √ Understand how epidemiologists narrow down the source of the outbreak.
- √ Discuss the food safety specialist's role in outbreak investigation.

**Janet Anderberg, RS**
DOH Food Safety Specialist

**Erin Chester, MPH**
DOH Communicable Disease Epidemiology

**Kaye Eckmann, BS**
Lead Microbiologist
DOH PHL Microbiology Division

**Donna Green, MS**
Lead Micorobiologist
DOH PHL Microbiology Division
Washington State Department of Health
Shoreline, WA

**Brian Hiatt, BS**
Lead Microbiologist
DOH PHL Environmental Laboratory Services

**Yolanda Houze, RM, SM(AAM)**
Microbiology Supervisor
DOH, PHL Bopterrorism Response Coordinator

***This session is sponsored by the Washington State Department of Health Public Health Laboratories.***

Session # 10
1:00 PM - 4:30 PM
3 Contact Hours
Intermediate

## Molecular Diagnostics: From Marcus Welby to Grey's Anatomy

In this session, Dr. Patel will discuss the birth of molecular diagnostics from culture to Dr. Kary Mullis' first PCR reaction. Followed by a focused technical section on the development of real-time PCR assays, that should transition us from the brief historic perspective to the latest in molecular diagnostics. More specifically Dr. Patel will address the latest molecular technologies for MRSA surveillance and diagnostics to include, but not limit us to, where they are used to reduce hospital acquired infections and how they have been shown to positively impact hospital revenues while delivering better patient care. There will be ample time for questions from the audience.

At the end of this session, participants will be able to:
- √ Discuss where PCR and real-time PCR should or could replace culture and why.
- √ Describe real-time PCR protocols and how their rapid TAT can positively impact better patient care and even hospital revenues.

**Seema R. Patel, PhD**
Director of Technical Support
Cepheid
Sunnyvale, CA

***This session is sponsored by Cepheid.***

## Friday, April 25, 2008

Session # 11
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Town-Hall Discussion: Diverse Jobs, Leadership and Mentoring Opportunities within the Clinical Lab Profession and the new ASCLS "Leadership Academy"

This session will be an open forum, Town-Hall style format. Seven panel members from throughout the state will share information on a variety of jobs, how they were mentored, and how they discovered different job opportunities. The new ASCLS Leadership Academy will be highlighted.

At the end of this session, participants will be able to:
- √ Summarize a variety of jobs available with a clinical laboratory background.
- √ Network with laboratory professionals from different backgrounds
- √ Describe how important mentoring/coaching is to our profession.

**Carol S. Anderson, MT(ASCP)**
Regulatory Affairs Specialist
Puget Sound Blood Center and Program
Seattle, WA

**Dana Duzan, CLS(NCA)**
Laboratory Manager
Sacred Heart Medical Center
Spokane, WA

**Mary Lampe, CLS, PhD**
Director: CLS/MT Program
University of Washington
Seattle, WA

**Lynh Le, MT(ASCP)**
Laboratory Manager
Pacific Physicians' Laboratory
Lynnwood, WA

**Lee Anne McGonagle Malott, MPH, SM(AAM)**
Emeritus Faculty, Medical Technology Program
UW Department of Laboratory Medicine
Seattle, WA

**Donna Reinbold, CLS(NCA)**
Chemistry Supervisor
Sacred Heart Medical Center
Spokane, WA

**Claudia Steen, MS, MT**
Director: Yakima Regional CLS Program
Yakima, WA

Session # 12
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Clinical Laboratory Approaches to Antimicrobial Resistance and Diarrhea

Clinical case vignettes will be presented. Cases are illustrative of the problems relating to 1) determining appropriate antimicrobial resistance patterns among bacterial isolates from clinical specimens, and 2) ensuring the appropriate laboratory testing is done to determine the etiology of acute and chronic diarrhea.

At the end of this session, participants will be able to:
- √ Identify and report antibiotic resistance due to a variety of mechanisms among bacterial isolates from clinical specimens.
- √ Identify and report problems with testing ordered for the workup of acute and chronic diarrhea.

**Paul Pottinger, MD**
Assistant Professor, Division of Infectious Diseases
Director, UWMC Antimicrobial Stewardship Program
University of Washington
Seattle, WA

## Friday, April 25, 2008

Session # 13
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Anemia Review: A Case Study Approach

This portion of the session will include an overview of anemias, their classification based on pathophysiology and morphology, and laboratory tests used in diagnosis. Case studies will be used to illustrate concepts.

At the end of this portion of the session, participants will be able to:
- √ Discuss possible causes of the anemia given laboratory test results.
- √ Suggest appropriate laboratory follow-up tests to determine anemia classification and evaluate results.
- √ Correlate poikilocytes with their mechanism of formation and assess their significance.

### Iron: What are the Keys to Homeostasis?

This portion of the session will discuss the advances in understanding iron metabolism and how this affects our insights into causes of anemia and hemochromatosis.

At the end of this session, participants will be able to:
- √ Name at least two proteins involved in iron transport and describe how they work.
- √ Explain the pathophysiology of anemia of inflammation.
- √ Describe how genetic defects in the iron metabolism proteins can affect the body's iron homeostasis.

**Shirlyn B. McKenzie, PhD, CLS(NCA), MT(ASCP)SH**
Distinguished Teaching Professor and Chair, Department of Clinical Laboratory Sciences
University of Texas Health Science Center at San Antonio
San Antonio, TX

Session # 14
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Acute Transfusion Reactions

Acute Transfusion Reactions are likely under-recognized and under-reported. There are many different types with varied pathogenesis, severity, treatment, and outcomes. This session is designed to provide a comprehensive review of these reactions and will contain the following:

1. Discussion of the signs/symptoms, treatment, prevention, and general laboratory workup for the following acute transfusion reactions:
   - ♦ Acute Hemolytic Transfusion Reaction
   - ♦ Febrile Non-Hemolytic Transfusion Reaction
   - ♦ Transfusion Related Acute Lung Injury (TRALI)
   - ♦ Bacterial Contamination (Sepsis)
   - ♦ Anaphylaxis
   - ♦ Urticaria
   - ♦ Transfusion Associated Circulatory Overload (TACO)
2. Review of two clinical case studies.
3. Signs and symptoms of potential reactions will be presented and the attendees will determine the type of reaction most likely implicated.

At the end of this session, participants will be able to:
- √ State the steps the transfusionist must perform when a suspected reaction occurs.
- √ Describe the underlying causes of various acute transfusion reactions.
- √ Recognize the clinical signs and symptoms of acute reactions.
- √ Discuss the clinical management of acute reactions.

**Mary Grabowski, RN**
Clinical Associate
Puget Sound Blood Center
Seattle, WA

**Dee Townsend-McCall, RN**
Transfusion Nurse Specialist
Children's Hospital & Regional Medical Center
Seattle, WA

## Friday, April 25, 2008

Session # 15
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

### Star Wars of the Body Besieged

Doctor Hill will review the major arms of the immune system including antibodies, complement, phagocytes, and T cells and describe how patients present clinically with each type of disorder, as well as the laboratory tests which are utilized to confirm the diagnosis. An analogy between the way that the body's host defense resembles military defense will be made, i.e., "Star Wars".

At the end of this session, participants will be able to:

- √ Recognize the clinical presentation of patients with defects in host defense.
- √ List the functional and, in some cases, the molecular tests used to confirm primary immune deficiencies.
- √ Describe the above items by analogy to military defense.

**HARRY R. HILL, MD**
Professor of Pathology, Pediatrics and Medicine, University of Utah
Senior Vice President, ARUP Laboratories
Chief Medical Director; Laboratories of Immunology
University of Utah and ARUP Laboratories
Salt Lake City, UT

***This session is sponsored by A.R.U.P***

Session # 16
1:00 - 4:30 PM
3 Contact Hours
Intermediate

### Should you be afraid of Genetically Modified Food?

In this session, Dr. Hamilton will discuss the mechanisms used to create Genetically Modified Organisms (GMO's) with particular emphasis on plants. We will discuss specific recombinant DNA technology used to generate GMO's and contrast this to traditional genetic breeding techniques. We will discuss some of the regulatory agencies and laws that control the use of GMO's, contrasting the US and Europe. We will also discuss the public attitudes regarding the dangers of GMO's versus the real dangers, both to your health and environmental.

At the end of this session, participants will be able to:

- √ Describe the process used to create a genetically modified organism, specifically the use of recombinant DNA technology and agrobacterium.
- √ Describe the environmental and health dangers that GMO's present and the regulatory measures that control the use of GMO's.

**GUY HAMILTON, PHD**
Biotechnology Program Director
Shoreline Community College
Shoreline, WA

Session # 17
1:00 - 4:30 PM
3 Contact Hour
Intermediate

## Zoonootic Infections: Who Can You Trust? Case Studies in Microbiology

The speaker will provide an overview of diseases that are transmissible from animals to human beings. Both domestic reservoirs and also wild reservoirs of disease will be discussed.

At the end of this session, participants will be able to:
- √ Distinguish zoonotic infections from human specific infections.
- √ Discuss the mechanisms of disease transference to human beings.
- √ Discuss the geographic areas where the transmission may occur.
- √ Discuss the etiologic agents involved.

**ROBBIN TRAVER, MT(ASCP)SM**
Microbiology Supervisor
VA Puget Sound Health Care System
Seattle, WA

Session # 18
1:00 - 4:30 PM
3 Contact Hours
Intermediate

## Diagnoses Originating in the Peripheral Blood Smear

This session will be a case driven discussion of various diagnoses (both neoplastic and non-neoplastic) in hematology that originate from clues identified in the peripheral blood smear.

At the end of this session, participants will be able to:
- √ Identify clues to systemic disease that originate in the peripheral blood smear.

**SINDHU CHERIAN, MD**
Acting Assistant Professor
University of Washington
Department of Laboratory Medicine
Seattle, WA

Session # 19
1:00 - 4:30 PM
3 Contact Hours
Intermediate

## Hepatitis C: An Overview and Update

This presentation will provide an overview of the Hepatitis C virus, its discovery, viral structure, organization of the genome, the viral life cycle, the major routes of transmission, the clinical course of the disease, and co-infection with other viruses. The trends and statistics of HCV epidemiology, WHO recommendations for prevention, treatment and medical management of HCV infections will also be discussed. The presentation will also address the current options for HCV diagnosis and confirmation (using supplemental testing) and monitoring viral load before and during antiviral therapy. The CDC guidelines and testing algorithm for HCV testing which aims to promote consistency in testing and improve the reliability of the reported results will also be discussed. The prospects of prophylactic and therapeutic vaccines in development will be summarized.

At the end of this session, participants will be able to:
- √ Describe the HCV viral stucture, genome, clinical course of HCV, including its routes of transmission.
- √ Describe the disease epidemiology, prevention, treatment and medical management of HCV infections.
- √ Review the current diagnostic options and CDC guidelines for HCV testing.
- √ Discuss the status of vaccine development for HCV.

**RAMANI WONDERLING, PHD**
U.S. Scientific Affairs Manager for Hepatitis & Retrovirus
Abbott Diagnostics
Abbott Park, IL

***This session is sponsored by Abbott Diagnostics.***

Session # 20
1:00 - 4:30 PM
3 Contact Hours
Intermediate

## Procurement and Infusion of Hematopoietic Stem Cells for Transplantation

In this portion of the program, Dr. Linenberger will review standard methods for collection of hematopoietic stem cells from the bone marrow, peripheral blood, and umbilical cord blood and their use in hematopoietic stem cell transplantation. Differences in stem cell and accessory cell populations within these various products will be discussed along with their potential effects on transplant outcomes. Infusion-related adverse events will be reviewed, with a particular emphasis on the contribution of red cells, white cells and the cryoprotectant solution of cryopreserved stem cell products.

At the end of this portion of the session, participants will be able to:

- √ Describe how hematopoietic stem cells are collected from different sources for transplantation into patients with benign and malignant hematological diseases.
- √ Describe the differences in cellular and plasma contents of stem cell products from bone marrow, peripheral blood, and umbilical cord blood, and their implications for clinical transplantation.
- √ Describe how an infusion of stem cell products can induce adverse reactions related to the cellular, plasma and/or preservative components and describe the approaches to avoid those complications.

**MICHAEL LINENBERGER, MD**
Medical Director, Apheresis and Cellular Therapy
Seattle Cancer Care Alliance and Fred Hutchinson Cancer Research Center
Associate Professor, Division of Hematology
University of Washington
Seattle, WA

## Transfusion Support of the Hematopoietic Stem Cell Transplant (HSCT) Patient

In this portion of the program, Dr. Gernsheimer will discuss general transfusion support of the HSCT patient, prevention, and management of transfusion complication such as alloimmunization, management of ABO incompatibilities, and bleeding.

At the end of this portion of the session, participants will be able to:

- √ Describe techniques to prevent alloimmunization.
- √ Describe the impact of ABO mismatches between donor and recipient and how these are managed.

**TERRY GERNSHEIMER, MD**
Associate Profession of Medicine & Hematology
University of Washington
Puget Sound Blood Center
Seattle, WA

Session # 21
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

## The Art of Dealing with Death and Dying

Death and dying are difficult subjects for most members of American mainstream culture, and yet, for those in the health and helping professions, it is important that we deal in sensitive and effective ways with individuals who are dying . This session is designed to facilitate professionals' comfort with interacting with individuals who are dying.

At the end of this session, participants will be able to:
- √ Describe some of their own issues related to death and dying.
- √ Utilize strategies and skills that allow for sensitive and optimal interactions with individuals near the end of life.
- √ Outline a reference and resource list for future use.

**DIANA E, KNAUF, PHD**
Professor of Psychology
Shoreline Community College
Shoreline, WA

Session # 22
8:30 AM - 12:00 PM
3 Contact Hours
Basic

## Phlebotomy and Beyond: The Future Role of the Clinical Laboratory Assistant

This session will explore CLIA and waived testing as it pertains to Clinical Laboratory Assistants (CLA). A background on laboratory technical employee shortages and increased responsibilities for the Clinical Laboratory Assistant will be discussed. A summary of the different waived tests and analyzers will be introduced and information will be given on new certificate programs for Clinical Laboratory Assistants so they can receive training to perform these new tasks.

At the end of this session, participants will be able to:
- √ Discuss opportunities available to Clinical Laboratory Assistants.
- √ Discuss the requirements for a CLA program.
- √ Discuss the types of waived tests that may be performed by the CLA.

**SUE SEEGERS, MT (HEW)**
MLT Faculty
Shoreline Community College
Seattle, WA

**ERIKA FERRERI**
Clinical Laboratory Assistant Instructor
Edmonds Community College
Edmonds, WA

Session # 23
8:30 AM - 12:00 PM
3 Contact Hours
Intermediate

## Utilizing Hematology and Flow Cytometry in the Differentiation of Abnormal Cellular Populations

This session will help introduce some of the basics of Flow Cytometry to laboratory professionals. The session will cover general design of flow cytometers and basic Immunology. Through case studies, we will develop an understanding of essential phenotypes of various neoplasms, and also discover some of the challenges facing us in using Flow Cytometry as a diagnostic tool. We will also explore how Flow Cytometers are used to help evaluate other diseases and research new therapies.

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

- √ Identify the basic design of a flow cytometer.
- √ Discuss the unique capabilities of the VCS differential.
- √ Describe how Flow Cytometry helps us distinguish between basic lymphomas.
- √ Identify some challenges in diagnosing neoplasms using Flow Cytometry.

**CATHY WOODMAN-SPEER, CLS, MT (ASCP)**
Cellular Product Specialist
Beckman Coulter
Gridley, CA

**DAVE OSBORN MT (ASCP), CLS (NCA)**
Senior Account Manager Flow Cytometry
Beckman Coulter

***This session is sponsored by Beckman Coulter, Inc.***

Session # 24
8:30 AM - 12:00 PM
3 Contact Hours
Basic

## Labs Are Vital
## Owning the Total Testing Process

The clinical laboratory community faces two crises – not enough people interested in the laboratory vocation and an increasingly marginalized presence at the healthcare community management table. Today, we will discuss some ideas on how these issues might be remedied.

At the end of this session, participants will be able to:

- √ Discuss how to participate in the movement to encourage young people into the clinical laboratory profession.
- √ Discuss how to elevate the laboratory personnel's status within the healthcare community.

**ROBIN KERR, MS, MT**
District Sales Manager Pacific Northwest
Abbott Diagnostics
Portland, OR

***This session is sponsored by Abbott Diagnostics.***

Session # 25
8:30 AM - 4:30 PM
6 Contact Hours
Intermediate

## Clinically Relevant Microbiology: Work Up of Bacteriology Cultures

Clinical microbiologists are continually challenged to integrate the concepts of cost-effectiveness and clinical relevance into their daily practice. However, many microbiologists find this a daunting task and are unsure where to begin.

This session will provide the practical knowledge necessary to implement cost-effective and clinically relevant work-up of cultures in your laboratory.

Practice and relevant topics that will be discussed include:

- The Gram Stain: assessing specimen quality and reporting organism morphology
- Practical methods for rapid identification of microorganisms
- Practice guideline for the work-up of the following specimens
  - Respiratory
  - Wound
  - Genitourinary
  - Gastrointestinal
  - Anaerobe
  - Blood

Case presentations will be used to reinforce clinical principles and decision-making exercises will aid participants in applying newly learned concepts to real life examples.

At the end of this session, participants will be able to:

√ Discuss methods to assess specimen quality using the direct Gram Stain.
√ Recognize and describe the morphologic characteristics of commonly encountered organisms.
√ Discuss rapid methods used to identify commonly encountered bacteria and yeasts.
√ Describe methods used to identify bacteria in blood cultures.
√ Design and implement clinical relevant approaches for culture work-up of various specimen types.

**Susan E. Sharp, PhD (DABMM)**
Director of Microbiology
Kaiser Permanente - NW
Associate Professor
Oregon Health Sciences University
Portland, OR

**Yvette S. McCarter, PhD (DABMM)**
Director of Microbiology
University of Florida/Shands Jacksonville
Jacksonville, FL

Session # 26
1:00 - 4:30 PM
3 Contact Hours
Basic

## Basic Presentation Skills

With changing roles in the laboratory environment, many leaders, supervisors, and bench technologists are finding themselves called upon to teach or to present, yet few have had basic speaking skills since college. This session will refresh some basic public speaking skills, provide some tricks and tips for pizzazz, and give hints on harnessing nervous energy to deliver an effective, memorable message.

At the end of this session, participants will be able to:
- √ Summarize basic speaking skills
- √ Master using audiovisual aids.
- √ Plan for the unexpected in public speaking.
- √ Describe how to deal with nervous energy.

**SHANE M. BALLWEG, MT (ASCP)**
Off Shift Supervisor, Core Laboratory
Children's Hospital and Regional Medical Center
Seattle, WA

Session # 27
1:00 - 4:30 PM
3 Contact Hours
Intermediate

## Pediatric Phlebotomy

This session will include a presentation on pre-analytical variables in specimen collection, including some that are pediatric specific. The speakers will discuss age specific pediatric distraction techniques and demonstrations of various techniques that will help with capillary and venipuncture in pediatric patients.

At the end of this session, participants will be able to:
- √ List pre-analytical variables for pediatric samples.
- √ Describe useful pediatric distraction techniques.
- √ Define phlebotomy techniques that assist with pediatric capillary and venipuncture collections.

**JAYA NARAYANAN**
Central Processing and Phlebotomy Supervisor

**VICTORIA ROBBE CLS (NCA), MT (ASCP)**
Laboratory Educator
Children's Hospital and Regional Medical Center
Seattle, WA

## Saturday, April 26, 2008

Session # 28
1:00 - 4:30 PM
3 Contact Hours
Intermediate

### An Update on the Myeloid Hematopoietic Neoplasms

In this session, Dr. McKenzie will discuss how advances in our understanding of the genetic basis of myeloid neoplasms affect their classification and treatment. Case studies will be used to illustrate the concepts discussed.

At the end of this session, participants will be able to:

- √ Describe how mutations in tyrosine kinases involved in cell cycling can result in a neoplasm.
- √ Explain why the JAK2 gene mutant has affected laboratory test utilization in the classification of MPDs.
- √ Relate the genetic basis of eosinophilic disorders to the proposed new classification of HES.

**SHIRLYN B. MCKENZIE, PHD, CLS(NCA), MT(ASCP)SH**
Distinguished Teaching Professor and Chair, Department of Clinical Laboratory Sciences
University of Texas Health Science Center at San Antonio
San Antonio, TX

Session # 29
1:00 - 4:30 PM
3 Contact Hours
Intermediate

### DNA Database and Crime Scene Investigation

This session will provide an introduction to Forensic Science. In addition, participants will be introduced to the analytical capabilities of our State Crime Laboratory System, the kinds of evidence we encounter, and our role in the criminal justice system. A discussion of the FBI's DNA database (CODIS) and examples of cold cases solved by our laboratories will be presented.

At the end of this session, participants will be able to:

- √ Describe what Forensic Scientists do in the laboratory and in the field.
- √ Define the role of the forensic scientist in the criminal justice system.
- √ Identify the role of DNA technology in solving crimes.

**ERIK NEILSON**
Laboratory Accreditation Manager
Washington State Patrol
Marysville, WA

**The 2008 Spring Seminar Program and a registration form are available on the Internet at the following URL:**

**http://www.asclswa.org**

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

# Plan to Attend

**AACC/ASCLS National Meeting**
July 29 - August 2, 2008
Washington, DC

**AMT National Meeting**
July 7-12, 2008
Providence, RI

**Northwest Medical Laboratory Symposium**
October 15-18, 2008
Portland, OR

**ASCLS-Washington 2009 Spring Seminar**
April, 2009
Spokane, WA

## Registration Terms and Conditions

**Fees are listed for each category.** To ensure adequate processing time, please postmark your registration by **March 31, 2008**. An additional $10.00 fee will be charged for on-site registration. Handouts or lunch will not be guaranteed to on-site registrants.

Lunch is included in the registration fee for persons who are preregistered for an AM **and** a PM session on the same day. Lunch is **not** provided for registrants that sign up only for an AM **or** PM session or who register on-site. Please check the box if you prefer a vegetarian meal for the days you are eligible for lunch.

**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. Anyone joining ASCLS and mailing the completed membership application with the registration form is eligible for member rates. If you choose not to pay your membership with a credit card, please write a separate check for your membership dues payable to ASCLS. Special promotion for **ASCLS new members** only.... 15 months for the price of 12. The membership form and payment must be sent to Jeanne Johnson to insure that you will get the promotion term.

**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. AMT's RMA are eligible for Phlebotomist Member fees.

**Payment:** Full payment in U.S. Dollars must accompany all registrations. Please submit a check for the appropriate payment according to the category that you qualify for. Those registrations without full payment will be held and the registrant notified. Checks must be made payable to **"Spring Seminar."** The bank will not accept checks made payable to any other name. The registration will not be processed until full payment made out to **Spring Seminar** is received in U.S. Dollars. No unpaid registrations or credit card registrations can be accepted.

The seminar committee reserves the right to limit registration and cancel any session prior to the seminar should circumstances make it necessary. If a session is cancelled, the registrant may attend another session or receive a refund. Otherwise, due to hotel and session expense obligations, **NO REFUNDS** are permitted.

**Registration Questions**

For registration questions or information contact:
Jeanne M Johnson, MT(ASCP)$^{CM}$
10844 2nd Ave SW
Seattle, WA 98146-2326

Phone: 206-246-7081
E-mail: j1953j@clearwire.net

**NOTE:** Phone calls will be returned either in the evening after 5:00 PM or on weekends. Be sure to include your day and evening phone numbers on the registration form on the following page.

If you wish to receive a confirmation, please include a self-addressed, stamped envelope. Confirmation may also be sent by e-mail upon request if you write your e-mail address clearly and legibly.

**2008 ASCLS-WA Spring Seminar**
**April 24 - 26, 2008**
**Lynnwood Convention Center**
**Lynnwood, Washington**

**Please Postmark by March 31, 2008**

PLEASE PRINT AND SHOW NAME AS WANTED ON NAME TAG

First Name _____ Last Name _____

Address _____

City / State / Zip _____

Day Phone (  ) _____ Evening Phone (  ) _____

Institution _____

City / State _____

E-mail Address _____

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

Would you be willing to serve as a Moderator for any of the sessions you will be attending?
☐ Yes ☐ No

☐ Check here if you prefer a vegetarian meal.

**ADVANCE REGISTRATION FEE SCHEDULE (All Full-Day Preregistrations INCLUDE lunch)**

**Member ASCLS or AMT** (Membership #: ASCLS_____ AMT_____)

| | | |
|---|---|---|
| Technical/Administrative Professional | | |
| Full Day ..... | ____ days | @ $ 80.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 40.00 $ ____ |
| Phlebotomist/RMA/COLT | | |
| Full Day ..... | ____ days | @ $ 40.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 20.00 $ ____ |
| Student | | |
| Full Day ..... | ____ days | @ $ 35.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 20.00 $ ____ |
| **NonMember** | | |
| Technical/Administrative Professional | | |
| Full Day ..... | ____ days | @ $150.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 75.00 $ ____ |
| Phlebotomist | | |
| Full Day ..... | ____ days | @ $ 70.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 35.00 $ ____ |
| Student NonMember | | |
| Full Day ..... | ____ days | @ $ 35.00 $ ____ |
| Half Day ..... | ____ half days | @ $ 20.00 $ ____ |
| | Total | _____ |

Mail to: Jeanne M. Johnson
10844 2nd Ave SW
Seattle, WA 98146-2326

Make checks payable to **Spring Seminar**.

## Special Promotion for New Members Only ... 15 months for the price of 12.

APPLICATION FOR MEMBERSHIP
**American Society for Clinical Laboratory Science**

Name _____ Date of Application _____

Company (School) _____ Department _____

Address (School)_____ City_____ State/Province_____ Postal Code_____

E-mail Address_____ Telephone _____ Fax _____

Home Address_____ City_____ State/Province_____ Postal Code _____

Home Phone _____

◯ Check here if you want to receive your ASCLS mail at home

**SCIENTIFIC ASSEMBLY**
Please tell us which Scientific Assembly sections you would like to join. ASCLS's Scientific Assembly sections provide an opportunity for members to network within their own scientific discipline. There is no additional fee for participation. (*choose one primary and one secondary interest*)

| PRIMARY | SECONDARY INTEREST |
|---|---|
| __(01) | __(01) biochemistry/urinalysis/ligand immuno-assay |
| __(02) | __(02) microbiology |
| __(03) | __(03) laboratory administration |
| __(04) | __(04) immunology/immunohematology |
| __(06) | __(06) histology |
| __(07) | __(07) hematology/hemostasis |
| __(09) | __(09) industry |
| __(10) | __(10) education |
| __(12) | __(12) phlebotomy |
| __(13) | __(13) cytotechnology |
| __(14) | __(14) consultant |
| __(15) | __(15) inspector/surveyor |

**CERTIFYING AGENCY AND DESIGNATION:**

(4) __NCAMLP __(a) CLS __(b) CLT __(c) other
(5) __AMT __(a) MT __(b) MLT __(c) other
(6) __ASCP __(a) MT __(b) MLT __(c) other
(7) __HHS __(b) CLT __(c) other
(8) __ISCLT __(a) RMT __(b) RLT __(c) other
(9) __Other:

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**Please assist ASCLS in collecting the following voluntary statistics to provide analysis of professional trends:**

Employment Status:__FT __PT __STU __UNEM __Retired Highest Degree: __H.S. __Assoc. __Bach. __Masters __Ph.D.

Year of Birth: _____ Sex: __F __M SS#_____

Race: (*please circle one*) Caucasian / American Indian / Alaskan Native / Asian/Pacific Islander / African American / Hispanic / Other

Contributions or gifts to ASCLS and ASCLS/PAC are not deductible as charitable contributions for federal income tax purposes. However dues payments may be deductible by members as an ordinary business expense. ASCLS estimates that 9% of your dues will be spent on lobbying, and therefore this portion will not be deductible on your federal income tax return.

**Special Promotion for New Members Only ... 15 months for the price of 12.**

## ASCLS Membership Categories and Eligibility Requirements

**PROFESSIONAL** (*full voting privileges)* is open to all persons certified or engaged in the practice and/or education process of the clinical laboratory science, including those with an active interest in supporting the purposes and goals of this Society. Membership benefits are dependent on level of membership:

**PROFESSIONAL I** includes basic benefits plus the award winning journal, CLS.
**PROFESSIONAL II** includes basic benefits only.

National Dues: Professional I - $92; Professional II - $70; **plus** State Dues: (see schedule at bottom of page)

**COLLABORATIVE** *(Non-voting privileges)* is available to any individual who currently holds membership in any other *health related national organization* **AND HAS NEVER BEEN A MEMBER OF ASCLS**.
Health related national organization membership:_____

National Dues only: $40

**FIRST YEAR PROFESSIONAL*** (*full voting privileges*) Open to persons who have graduated within the last twelve months from an accredited program in laboratory science. Prior student membership with ASCLS is not a prerequisite. This membership status is valid for only one year to assist recent graduates. After one year in this category, members are upgraded to Professional membership.

National Dues: $40.00 plus State Dues: (see schedule at bottom of page)

**STUDENT***(*non-voting privileges*) Open to persons enrolled in a structured program of training or academic instruction in clinical laboratory science, or to full-time graduate students in related science area.

National Dues: $25.00 no state dues in Washington or Oregon

*Persons residing in foreign countries are not eligible for these categories—only the Professional categories.

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**I wish to join ASCLS as a _____ member.**
**(**Students, please list your expected date of graduation: _____ Mo/Yr.)

**Membership dues: ____ + State dues: ___ = Total payment enclosed _____**

**Method of Payment: (U.S. Funds Only)**
**__ Check (payable to ASCLS) __ Visa __ MasterCard __Amex**

**Exp. date_____**
**Card #_____**
**Name on card _____**

**Signature_____**

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**State Dues Professional I & II**
AK, ID, OR, WA $10
Other States .. Please check on the ASCLS web site for correct state fees.

**Please complete and send this application with your payment to:**

Jeanne M. Johnson
10844 2nd Ave SW
Seattle, WA 98146-2326

# At A Glance

## Thursday, April 24

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| AM | Managing for Quality | DNA Testing in Forensic Specimens | Current Concepts on Managing a Patient on Heparin // D-Dimer Analysis: Review and Current Considerations | Community Acquired Methicillin Resistant *Staph aureus* (CA-MRSA) // Influenza // Methicillin Resistant Staph aureus (MRSA) in a Hospital Setting: What's it Gonna Cost Me? | Lab Zebras: Weird Laboratory Case Studies // Hormones in Saliva: Testing and Interpretation |
| | **6** | **7** | **8** | **9** | **10** |
| PM | Cost Accounting 101 – How to determine Your Real Costs of Testing | Actionable Cardiovascular Healthcare Information | Thrombosis and Thrombophilia | Connecting the Dots—Foodborne Disease Outbreak Investigation | Molecular Diagnostics: From Marcus Welby to Gray's Anatomy |

## Friday, April 25

| | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|
| AM | Diverse Jobs, Leadership and Mentoring Opportunities and the new ASCLS "Leadership Academy" | Clinical Laboratory Approaches to Antimicrobial Resistance and Diarrhea | Anemia Review: A Case Study Approach // Iron: What are the Keys to Homeostasis? | Acute Transfusion Reactions | Star Wars of the Body Besieged |
| | **16** | **17** | **18** | **19** | **20** |
| PM | Should you be afraid of Genetically Modified Food ? | Zoonootic Infections: Who Can You Trust? // Case Studies in Microbiology | Diagnoses Originating in the Peripheral Blood Smear | Hepatitis C: An Overview and Update | Procurement and Infusion of Hematopoietic Stem Cells for Transplantation // Transfusion Support of the Hematopoietic Stem Cell Transplant (HSCT) Patient |

## Saturday, April 26

| | 21 | 22 | 23 | 24 | 25 |
|---|---|---|---|---|---|
| AM | The Art of Dealing with Death and Dying | Phlebotomy and Beyond: The Future Role of the Clinical Laboratory Assistant | Utilizing Hematology and Flow Cytometry in the Differentiation of Abnormal Cellular Populations | Labs Are Vital, Owning the Total Testing Process | Clinically Relevant Microbiology: Work Up of Bacteriology Cultures |
| | **26** | **27** | **28** | **29** | **25** |
| PM | Basic Presentation Skills | Pediatric Phlebotomy | An Update on the Myeloid Hematopoietic Neoplasms | DNA Database and Crime Scene Investigation | Microbiology Cont |

Jeanne M Johnson, MT(ASCP)CM
10844 2nd Ave SW
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