Pre-Conference Workshops
Two-hour workshops offer participants the opportunity to learn current and up-and-coming topics of interest in genetics. Pre-conference workshop registrations must be purchased separately.

Sunday, June 23
1:00 pm - 3:00 pm

PCR and Sequencing for the Cytogeneticist
Amy Groszbach, MEd, MLT(ASCP)MB, Mayo Clinic
Loren Simpson, Mayo Clinic
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

This workshop will review the concepts of PCR, the purpose of the PCR reagents, how to design primers, how to design PCR reactions, the concepts of sequencing, the purpose of the sequencing reagents, and how to interpret and score sequencing electropherograms. There will also be hands-on activities involving primer design and the interpretation of sequencing results.

Advancing Your Sequencing to the Next Generation
Joe Blommel, MS, Mayo Clinic
Lisa Peterson, MB(ASCP), Mayo Clinic
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

This workshop will present the various next-generation sequencing library preparation methods, sequencing options, and their applications in the clinical laboratory. Run quality metrics will be discussed and how they are used to determine the success or failure of a run. An overview of troubleshooting common (or uncommon) problems will also be presented.

3:30 pm - 5:30 pm

Next-Generation Sequencing Primary/Secondary Variant Analysis: The Technologist’s Perspective
Michelle Mah, MSc, MB(ASCP)CM, Princess Margaret Cancer Centre-OICR
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

Next-generation sequencing is increasingly part of molecular diagnostics and the role of genetic technologists has evolved. The abundance of genetic data has increased significantly and analysis has become more involved. Participate in this workshop to learn about the basic workflow of handling and evaluating high-throughput genetic information as it pertains to most working technologists by the bench side.

Utility of Publically-Available Knowledgebases in Clinical Genomics
Beth Pitel, MS, CG(ASCP)CM, Mayo Clinic
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

Learn several knowledgebases that can be used as tools to streamline interpretation of gene variants in your laboratory. The workshop will highlight unique strengths of each resource and aid in navigating each site.
Monday, June 24
9:00 am - 11:00 am

**Automated Chromosome and FISH Workflows in Cytogenetics**
Sally Kochmar, MS, CG(ASCP), UPMC Magee-Women’s Hospital
Jeff Sanford, Metasystems
James Stanchfield, PhD, SciGene
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

Participate in a hands-on demonstration of instruments that automate the preparation and microscopic analysis of chromosome and FISH slides. Using real samples and reagents, attendees will prepare FISH slides using 1 ul sample and 1 ul of rapid hyb probes ready for microscope analysis after just 1 hour of incubation.

**Deciphering the Language of Cytogenetics – Clues to Understanding, Finding the Disease Associated Abnormalities and Writeup Moderate to Complex ISCN**
Su Yang, CG(ASCP), MD Anderson Cancer Center
Program Area: CMB
Contact Hours/Level: 2.0/Advanced

This workshop will identify some of the problems that present challenges to technologists and to demonstrate an easy to follow criteria to determine how to write up an accurate ISCN on some challenging cases.
General Sessions
ASCLS and AGT bring nationally-renowned speakers to the podium to highlight issues of importance to all clinical laboratorians.

Opening Keynote
Monday, June 24
1:00 pm – 2:15 pm

The Future of the Laboratory Profession: How Important is Clinical Lab 2.0?
James Crawford, MD, PhD, Zucker School of Medicine at Hofstra/Northwell
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Laboratory professionals have uniquely valuable skill sets for delivery of high-quality healthcare. This presentation will examine how our strengths empower us to provide innovative new solutions for effective delivery of healthcare, how such opportunities can be identified, and how we can be recognized for our contributions.

Closing Keynote
Wednesday, June 26
4:30 pm – 5:30 pm

A Happier U: Work Habits to Enhance Performance & Well-Being
Devin Hughes, Devin C. Hughes, Inc.
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Struggling to find some joy in your life at work? Why does it sometimes seem so hard to be happy? We all want to be happy @ work. When you’re happy, it radiates from within and rubs off on the world. Happiness has powerful effects on our day-to-day lives. Happy people are more productive, more satisfied, and they live longer. But how do you get there? With a little bit of help and inspiration, it’s both possible and delightful to turn on the faucet of joy, humor, love, hope, and compassion at work. Everyone’s talking about wellbeing at work, but no one’s telling you how to do it.

This talk changes all that. Attend and learn the real, tangible, and practical ways that you can apply immediately to get on the highway to true happiness at work. Whether you’re feeling overwhelmed and frustrated or just want to increase your happiness, you can learn how in just a few minutes a day.
Educational Sessions
Recognized experts in the field of clinical laboratory science present a wide range of topics to assist in continued professional development. These 60- or 90-minute sessions explore topics that cover the range of continuing education requirements needed to maintain certification.

Monday, June 24
2:30 pm - 3:30 pm

Inheritance and Imprinting Gone Awry: The Development of Prader-Willi and Angelman Syndromes
Julie Bayer-Vile, MS, MLS(ASCP)CMSCCM, MB, Sarah Cannon Cancer Institute
Program Area: CMB
Contact Hours/Level: 1.0/Intermediate

Imprinting is a crucial, but not well-understood, epigenetic phenomenon in genetic development. Prader-Willi and Angelman Syndromes are examples of what can happen when there is a flaw in the normal process. Learn the clinical signs of Prader-Willi and Angelman, the genetics behind the conditions, and available diagnostic methods.

Synthetic Microbiology: Is the Future of Infection Carbon Based?
James Griffith, PhD, Forensic DNA Associates
Program Area: MIC
Contact Hours/Level: 1.0/Intermediate

Many advances in molecular techniques have advanced society through medicine and biology. Synthetic life is now at our doorstep and indeed is already making its presence felt. This session will look at how we got to this point as well as the very nature of synthetic life and what the next steps will be. Implications for clinical microbiology will be speculated.

The Value of Professionalism in Laboratory Medicine
Lisa Cremeans, MMDS, MLS(ASCP)CMSMCMMBCM, The University of North Carolina at Chapel Hill
Jennifer Swift, MLS(ASCP)CM, CHS(ABHI), MHA, Duke University Health System
Rita Winsor, SHRM-SCP, CCP, St. Mary’s College, DUHS Clinical Laboratories
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

What do we do about rude behaviors and bad attitudes in the laboratory? Is professionalism just misunderstood or do we not do enough to set the expectations? Employers and educators will discuss collaborations to develop training and continuing education programs for new and seasoned laboratory professionals.

Complementary Genetic Analytical Platforms for Accurate Diagnosis
Arturo Anguiano, MD, FACMG, Quest Diagnostics, Nichols Institute SJC CA
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

This session will include several cases where the integration of existing genetic and genomic platforms are complementary and valuable to achieve an accurate diagnosis.
3:45 pm - 4:45 pm

**CAR T Experience from Both Sides – As a Patient and as a Physician**
Brian Koffman, MDCM, DABFM, CLL Society
Program Area: HEM
Contact Hours/Level: 1.0/Intermediate

Hear about the reality of the CAR T treatment from a patient experiencing it and a clinician following the lab and clinical signs--what we know and don’t know.

**From Ow to Wow**
Lynn Todd, MLS(ASCP), Campbell County Health
Program Area: PHL
Contact Hours/Level: 1.0/Intermediate

This presentation illustrates how the pediatric phlebotomy experience can be transformed from a hurtful memory to a “wow.” Parents leave with smiling children instead of crying children.

**As the Lab Turns – A Day in the Life of the Soap Opera That Can Be Lab Leadership Part 1**
Aaron Fisk, JD, SHRM-SCP, Microbiologics
Program Area: ADM
Contact Hours/Level: 1.0/Intermediate

An interactive case study based discussion around the sometimes messy people side of the lab. We will walk through a number of different scenarios that lab leaders often face and offer different tools to help navigate these difficult conversations and situations.

**Development of Gene Signatures in Triple-negative Breast Cancer**
Joseph Pinto, PhD, Oncosalud-AUNA
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

Triple-negative breast cancer is an aggressive malignancy with limited opportunity of targeted therapy due to the lack of molecular targets. In this presentation, several gene signatures developed to predict the outcome of this disease will be reviewed.

5:00 pm - 6:00 pm

**Changes in Clinical Practice that Affect the Blood Bank/Transfusion Services**
Marisa Marques, MD, University of Alabama at Birmingham
Program Area: IH
Contact Hours/Level: 1.0/Intermediate

New drugs or discoveries to advance clinical care often affect the work of laboratorians. In the blood bank/transfusion services, most of the work centers around pre-transfusion testing and issuing of blood products. New monoclonal antibodies against malignancies have affected our work, and whole blood is coming back.
The Vampire Diaries: Tales of Healthcare-acquired Anemia
Kyle Riding, PhD, MLS(ASCP)CM, University of Central Florida
Program Area: SAF
Contact Hours/Level: 1.0/Intermediate

The role of laboratory professionals in patient safety is ever-evolving and frequently under-appreciated. While many opportunities exist for us to improve patient care, the link between healthcare acquired anemia and laboratory utilization demonstrates the need for us to become more involved in right-sizing utilization to limit the incidence of this iatrogenic disease and its associated adverse outcomes. This presentation will discuss this threat to patients and how our unique knowledge and skill set can assist and improve outcomes.

As the Lab Turns – A Day in the Life of the Soap Opera That Can Be Lab Leadership Part 2
Aaron Fisk, JD, SHRM-SCP, Microbiologics
Program Area: ADM
Contact Hours/Level: 1.0/Intermediate

Be part of an interactive case study-based discussion around the sometimes messy people side of the lab. We will walk through a number of different scenarios that lab leaders often face and offer different tools to help navigate these difficult conversations and situations.

SNP Array – Individuals with Intellectual Disabilities
Barbara DuPont, PhD, FACMGG, Greenwood Genetic Center
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

This presentation will discuss the Xon array and how it benefits the patient and laboratory, along with interesting cases.

Tuesday, June 25
8:00 am - 9:00 am

Vitamin D – Why We All Need a Little Bit of Sunshine
Tamara Hew-Butler, DPM, PhD, FACSM, Wayne State University
Program Area: C/U
Contact Hours/Level: 1.0/Intermediate

This presentation will provide an overview of Vitamin D synthesis and biological function. The proposed clinical benefits will be discussed as well as the conundrums associated with conflicting studies and recommendations. The session will touch upon the potential for Vitamin D to be an ergogenic aid, from our own investigations.
A New Era in Treating Hematologic Disease: CRISPR-Cas9 Genome Editing
Kristin Landis-Piwowar, PhD, MLS(ASCP)CM, Oakland University
Program Area: HEM
Contact Hours/Level: 1.0/Intermediate

Persistent expression of fetal hemoglobin (HbF) beyond the neonatal period is a naturally-occurring condition that improves the pathology of Sickle Cell Disease and β-thalassemia; it is associated with increased expression of γ-globin. CRISPR/Cas9-based therapy has the potential to upregulate γ-globin and HbF as a therapeutic strategy for β-globin disorders.

The Value of Laboratory Medicine: What Has Been Published?
Diane Davis, Ph.D. MLS(ASCP)CM, Salisbury University Medical Lab Science Program
Teresa Nadder, PhD, MLS(ASCP)CM, Virginia Commonwealth University
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

This session will outline the process used for the comprehensive literature review used to determine what has been published regarding the value of the laboratory to medicine and then describe the findings around four themes: providing test results; test consultation; financial value and contributions to knowledge development; and change in healthcare.

Disaster Planning
Shannon Billings, MS, MLS(ASCP)CM, Davita Laboratory Services
Wendy Williams, MT, MSAH, Appalachian Regional Healthcare System
Program Area: SAF/ADM
Contact Hours/Level: 1.0/Intermediate

Learn tips and tricks on how to prepare your lab for the worst case scenario and how to recover from a disaster in this facilitated group discussion.

Therapy-Related Myeloid Neoplasms: When Genetics and Environment Collide
Michelle Le Beau, PhD, University of Chicago
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

Therapy-related myeloid neoplasms (t-MN) arise in patients treated with cytotoxic therapy for a primary malignancy. Emerging data has revealed new insights into the genetic pathways leading to t-MN, illuminating who is at highest risk, why t-MN is chemoresistant, and how we may use this information to treat and ultimately prevent this lethal disease.
9:15 am - 10:15 am

Operational Standardization: Networked Labs Become One
Deanna Franke, PhD, DABCC, Atrium Health
Stephanie Inman, MLS(ASCP)SM, Atrium Health
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Standardizing teammate procedures, processes within a single laboratory, as well as across a network can be challenging. Operational silos, lack of strategic vision, and unclear priorities are common barriers to gaining efficiencies and achieving standardization. This session will provide bench-level teammates, managers, and lab administrators with tools, work aids, and strategic roadmaps to achieve an operational standard that supports ongoing technical quality. We will focus on and share how laboratory leaders can drive change across a hospital network by partnering with clinical service lines, Informatics and Analytics Services, and other key stakeholders and leaders to gain operational efficiencies and provide quality patient testing services.

The Secret Stories of Sodium: How Healthy People Die from Sodium Imbalance
Tamara Hew-Butler, DPM, PhD, FACSM, Wayne State University
Program Area: C/U
Contact Hours/Level: 1.0/Intermediate

This presentation will detail the importance of maintaining normonatremia (serum sodium concentration between 135-145mmol/L). Extreme derangements in serum sodium concentration (dysnatremia) often has fatal consequences. However, most cases of hypernatremia and hyponatremia are preventable with the correct balance of fluid and sodium intake.

Heavy Chain or Nanobodies
John Gerlach, PhD, D(ABHI), Michigan State University
Program Area: I
Contact Hours/Level: 1.0/Intermediate

This session will include a discussion on the characterization of heavy chain and nanobodies, a comparison of heavy chain and nanobodies with conventional immunoglobulins, and their applicability to diagnostics and therapeutics.

Educating the Patient: A Vital Member of the Health Care Team
Mary Ann McLane, PhD, MLS(ASCP)SM, University of Delaware
Carol Rentas, PhD, MT(ASCP)SC,
Cary Scott, LabSavvy
Program Area: EDU
Contact Hours/Level: 1.0/Intermediate

Most may be surprised by the fact that 50 percent of Americans are healthcare illiterate; they are unable to interpret their own patient data and use that information to advocate for positive health outcomes. In this session we will explore ways in which an informed and engaged patient serves as a crucial member of the healthcare team, appropriate educational strategies which can be used to assist the patient in that role, and specific reasons why medical laboratory professionals are uniquely qualified to lead in this patient-centered care movement. In addition, the panel will present currently-used and evolving models of patient education which demonstrate the key opportunities in which medical laboratory professionals can impact health care in ways beyond the typical laboratory setting.
Genome Editing and Vertebrate Systems: Approaches for Solving Diagnostic Challenges
Heather Flanagan-Steet, PhD, Greenwood Genetic Center
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

With increasing numbers of cases where DNA sequencing has uncovered genetic variants whose significance is unclear, there is a growing need to functionally analyze the impact of the identified variant. This session will discuss cell- and animal-based approaches that can be used to determine a variant’s significance.

10:30 am - 11:30 am

Lead: The Good, the Bad, and the Ugly
Roslyn McQueen, PhD, CCRC, Hurley Medical Center
Claude Rector, MA, MLS(ASCP)CM, Arkansas State University
Program Area: C/U
Contact Hours/Level: 1.0/Intermediate

Lead poisoning is probably the most critical environmental contamination, with major health implications especially affecting the growth and development of children. This presentation will focus on the public health crisis resulting from lead contamination to the water source in Flint, Michigan. The presenters will review the timeline that created the crisis; review the pathophysiology and health implications of lead poisoning; and explore the probability for the next Flint, Michigan. What have we learned from the Flint fiasco and could it happen in your community?

The Blood Bank’s Role in the Care of Trauma Patients
Yara Park, MD, University of North Carolina
Program Area: IH
Contact Hours/Level: 1.0/Intermediate

This session will delve into the blood bank’s role in the treatment of trauma and bleeding patients, including the use of pre-hospital transfusion, whole blood, and a variety of plasma products. We will also discuss the obstacles to some of these interventions.

The Top Five Skills of Effective Leaders
Daryl Kerr, PhD, University of North Carolina at Charlotte
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Leadership is a term often used in everyday conversation, but there is no common or accepted definition. What we do know is that leadership has … (1) nothing to do with titles, (2) nothing to do with seniority or one’s position in the hierarchy of a company, and (3) nothing to do with personal attributes. Come learn the process, behaviors, and skills of effective leaders.
Educating Physicians: What We Always Thought They Knew But They Didn’t
Brandy Gunsolus, DCLS, MLS(ASCP)CM, Augusta University Medical Center
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

In implementing a physician educational series in laboratory medicine, it became clear physicians were not learning in medical school what we, as laboratory scientists, thought they would. This presentation covers the laboratory-determined educational topics, physician-requested topics, and physician questions received in these sessions.

An Introduction to Mate Pair Sequencing: An NGS Structural Variation Detection Method
Beth Pitel, MS, CG(ASCP)CM, Mayo Clinic
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

Attendees will be oriented to Mate Pair Sequencing (MPseq) requirements, library preparation, sequencing, and data analysis.

1:00 pm - 2:00 pm

Cytogenetic and Molecular Oral Presentations
Program Area: CMB
Contact Hours/Level: 1.0/Intermediate

Highest-rated by peer review, member-submitted research and case studies in the areas of cytogenetics and molecular biology will be presented orally.

2:00 pm - 3:00 pm

Violence in Healthcare and Dealing with Mental Health Patients
Elizabeth Dahlgren, MLS(ASCP)CM, ACL Laboratories
Estelle Ninnemann, MT(ASCP), ACL Laboratories
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Healthcare workers are at increased risk for workplace violence, and violence can strike at any time. Workplace violence ranges from verbal abuse and threats to physical assault and homicide. It is important to recognize, avoid, or diffuse potentially violent situations and set zero-tolerance policies to protect healthcare workers.
Are you a Foodie? Learn More about Foodborne Outbreaks  
Rodney Rohde, PhD, SM(ASCP), Texas State University-CLS Program  
Susie Zanto, MPH, MLS(ASCP)SMCM, Laboratory SolutionZ  
Program Area: MIC  
Contact Hours/Level: 1.0/Intermediate  

According to the Centers for Disease Control and Prevention, each year one in six Americans get sick from eating contaminated food. Many of these illnesses trigger an investigation by public health. This session will describe the components of a foodborne outbreak investigation and the importance of laboratory testing in identifying and investigating outbreaks. In 2019, public health laboratories will be transitioning to whole genome sequencing for DNA fingerprinting, and this session will describe what this new technology brings to outbreak investigations as well as traditional laboratory methodology.

Induced Pluripotent Stem Cells (iPSCs) and Their Application  
Uthayashanker Ezekiel, PhD, MB(ASCP)CM, Saint Louis University  
Program Area: GEN  
Contact Hours/Level: 1.0/Intermediate  

Adult cells can be reprogrammed into embryonic stem-like cells. These iPSCs are similar to embryonic stem cells and can be differentiated into any type of cell. iPSCs have potential as treatment for many types of diseases, in drug discovery, and for understanding molecular pathways and applications in cellular therapy.

The Evolving Role of Peripheral Blood Stem Cell Transplantation to Cure Sickle Cell Disease  
Michael Kent, MD, Levine Children’s Hospital/Atrium Health  
Program Area: GEN  
Contact Hours/Level: 1.0/Intermediate  

Learn the rationale for stem cell transplantation for sickle cell disease as well as the evolution of transplantation for sickle cell disease.

Genetic Testing in the Diagnostic Odyssey: The Difference You Make  
Sarah Barnett, MS, CGC, Mayo Clinic  
Program Area: CMB  
Contact Hours/Level: 1.0/Advanced  

The diagnostic odyssey can be long and stressful for patients and families. Finally receiving a diagnosis is often a relief, even when the diagnosis may be super rare and have no treatment. This presentation will tell the story of several patients and how their lives were touched by clinical whole exome sequencing and other exploratory genomic technologies.
3:15 pm - 4:15 pm

Collaborating across Disciplines to Address Hepatitis C in at Risk Populations
Rebecca Pelc, PhD, North Carolina State Laboratory of Public Health
Program Area: MIC
Contact Hours/Level: 1.0/Intermediate

Acute hepatitis C (HCV) infections in North Carolina increased more than six-fold between 2009 and 2014. Injection and/or non-injection drug use is the most commonly reported risk factor and is supported by rising rates of opioid overdose and polysubstance use in North Carolina (NC). We will describe how the NC Test, Link, Cure (NC TLC) Program, developed through collaborations between the North Carolina Communicable Disease Branch (CDB) and State Laboratory of Public Health (SLPH), sought to improve NC’s HCV testing infrastructure and resources for uninsured, at-risk populations.

Why You Should Consider the PA Profession
Justin Falcon, MHS, PA(ASCP)CM, West Virginia University
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

This presentation will highlight the pathologists’ assistant profession and the duties and responsibilities associated with it. It will also demonstrate how a medical laboratory science background benefits those looking to pursue career as a pathologists’ assistant.

Clinical and Regulatory Update for Hospital Bedside Glucose Testing – Recent FDA Clearance and Consequences
Evangelos Ntrivalas, MD, PhD, HCLD/CC(ABB), D(ABMLI), West Virginia University
Program Area: POC
Contact Hours/Level: 1.0/Intermediate

Hear about the importance of point-of-care (POC) glucose testing in the management of dysglycemia of hospitalized patients. Using peer-reviewed publications and clinical case studies, the potential negative effects of inaccurate POC glucose results, due to interferences related to patients’ pathophysiologic factors and exogenous substances, will be presented. Additionally, data will be shown highlighting the importance of accurate POC glucose meter results for improved clinical outcomes and patient safety.

Impact of 2018 Updated ASCO/CAP Guidelines on HER2 in Situ Hybridization (ISH) Testing
Katherine Geiersbach, MD, FCAP, Mayo Clinic
Program Area: CMB/QA
Contact Hours/Level: 1.0/Advanced

This presentation will describe the changes in the interpretation of in situ hybridization (ISH) testing under the updated ASCO/CAP Guidelines for HER2 testing in breast cancer published in 2018.
**Procalcitonin and Antibiotic Stewardship**  
Eric Stanford, MHA, MLS(ASCP)CM, Vanderbilt University Medical Center  
Program Area: MIC/I  
Contact Hours/Level: 1.0/Intermediate

There’s a lot of talk about antibiotic resistance and the future of antibiotics. But what can be done? Procalcitonin has been around for quite awhile, but its use in the US has just begun with recent FDA clearances and is an excellent marker for antibiotic stewardship. In this session, we will understand what procalcitonin is, how it is used, and what the future holds for this important assay.

**Diagnostic Hematopathology: An Update**  
Kamran Mirza, MD, PhD, FCAP, FASCP, MLS(ASCP)CM, Loyola University Chicago Stritch School of Medicine  
Program Area: CMB  
Contact Hours/Level: 1.0/Intermediate

With rapid advances in molecular techniques, the world of diagnostic hematopathology has undergone rapid updates. Many of these have been fortified in the latest World Health Organization (WHO) classification. This presentation provides an update on key changes in the new WHO from the perspective of the medical laboratory scientist and provides historic insight into how these updates have evolved.

**Get Paid to Travel – Ask Us How**  
Norma Bivona, BS, MLS(ASCP)CM, Fusion Medical Staffing  
Cynthia Valentine, BSMT, MT(ASCP),  
Program Area: GEN  
Contact Hours/Level: 1.0/Intermediate

Get the inside scoop on everything you ever wanted to know about working as an MLS/MLT while traveling and getting paid to do so.

**New Technology in Phlebotomy**  
Nicole Buza, MLS(ASCP)CM, University of Wisconsin Health University Hospital  
Program Area: PHL  
Contact Hours/Level: 1.0/Intermediate

Learn about emerging and newer products like retracting butterfly needles, vein finders, needless devices, and more. This session includes new and interesting items on the market that are helping to change the future and safety of the phlebotomy world.
Genomic Studies of Solid Tumors
Daynna Wolff, PhD, Medical University of South Carolina
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

Solid tumors exhibit many genomic alterations, both germline and somatic, including single nucleotide variants (SNVs), copy number alterations (CNAs), and structural aberrations. Identification of genomic alterations is important for diagnosis, prognosis, and/or therapy. This presentation will overview genomics testing methods that can be used for clinical assessment, the advantages/limitations of current methods, and emerging concepts in cancer genomics including the significance of premalignant clonal changes, as well as the use of circulating cell-free DNA to assist with cancer screening.

9:15 am - 10:15 am

Total Lab Automation
Paul Lephart, PhD, D(ABMM), Michigan Medicine-University of Michigan
Program Area: MIC
Contact Hours/Level: 1.0/Intermediate

Hear about the trials, tribulations, and lessons learned associated with the implementation of laboratory automation in a clinical microbiology lab.

Aspirin, the 1899 Wonder Drug Lives Again
George Fritsma, MS, MLS(ASCP)CM, The Fritsma Factor, Your Interactive Hemostasis Resource
David McGlasson, MS, MLS(ASCP)CM, Clinical Research Scientist/Contributor to Diapharma Group, Inc.
Program Area: HEM
Contact Hours/Level: 1.0/Intermediate

This presentation includes a description of aspirin’s anti-platelet and anti-inflammatory properties; indications for aspirin; when not to use aspirin; how to test for aspirin’s presence, safety, and efficacy; and how to establish aspirin dosage.

Stump the Safety Man
Dan Scungio, MT(ASCP), SLS, CQA(ASQ), Dan the Lab Safety Man, Inc.
Program Area: SAF
Contact Hours/Level: 1.0/Intermediate

Lab safety issues might stump you - but can they stump the Lab Safety Man? Find out today as you play for fun and prizes! Whether your goal is to outsmart the expert or to simply get your burning lab safety questions answered, you’re sure to learn in this innovative session.
Regulations for POC and Professionalism in Working with Patients and Colleagues
Denise Driscoll, MS, MT(ASCP)SBB, College of American Pathologists
Kathy Nucifora, MPH, MT(ASCP), COLA
Program Area: POC
Contact Hours/Level: 1.0/Intermediate

This exciting, interactive session will include moderator-led discussions with two panelists providing information from different regulatory and certification agencies. Audience participation will be encouraged as the latest regulatory topics are brought to the table.

10:30 am - 12:00 pm

Career Symposium Panel
Laurie Gillard, MS, MLS(ASCP)CMSBBCM, Rush University
Miles Tompkins, MLT(ASCP)CM, Diagnostic Laboratory of Oklahoma
Kathy Doig, PhD, MLS(ASCP)CM, Michigan State University
Program Area: GEN
Contact Hours/Level: 1.5/Intermediate

This session includes three presentations on topics related to career advancement and professional development.

Advancing the Laboratory Professions through Distance Learning – This presentation will highlight educational and career advancement opportunities currently available for clinical laboratorians. The discussion will include degree and certificate programs as well as identify what the audience members can do now to enhance their present-day work life.

Turning Education Into Employment – Even in the most dynamic and robust job markets, great lab techs can sometimes get passed over by employers. In this section, we will explore how to convert our passion for science into to the proficiency to acquire the “dream job” and earn the paycheck we deserve.

DIY Mentoring – Even if you have the advantage of a professional mentor, it is unlikely that a single individual can meet all your mentoring needs. Learning to self-mentor is an important career skill. Learn strategies you can use for “do-it-yourself” mentoring.
Case Studies Symposium
Jill Murrell, PhD, The Children’s Hospital of Philadelphia
Sarah Wheeler, PhD, University of Pittsburgh Medical Center
Rudi Hrncic, MD, Binding Site, Inc.
Program Area: GEN
Contact Hours/Level: 1.5/Intermediate

This session includes three case study presentations.

Mining the Gold: Unearthing the Diagnostic Potential of Clinical Exome Sequencing – Clinical exome sequencing has revolutionized our capacity to diagnosis and treat children presenting with medical conditions of unknown origin, finding underlying genetic causes in ~30% of the most difficult cases. This presentation will briefly review the process of clinical exome analysis and discuss a few fascinating and challenging cases.

Endocrinology When the Tests Don’t Make Sense – We will review endocrinology cases where the results produce potentially more questions than answers, and discover what the true answers are. Along the way we will assess some potential testing.

Serum Free Light Chain Assays Abnormalities: Case Studies – The International Myeloma Working Group diagnostic criteria contain the serum free light chain assay, a quantitative assay that is highly sensitive and specific for free immunoglobulin light chains (FLC). In the context of myeloma screening, the serum FLC assays in combination with serum protein electrophoresis yields 100% detection rate for 467 MM in 2009 Mayo study/publication. The sensitivity and specificity of screening protocols for monoclonal gammopathies are improved through use of the free light chain assay.

Organize and Protect: Unions and Licensure for Laboratorians
Stephane Mihane, MLS(ASCP)CM, POC(AACC), Kaiser Permanente
Angela Robinson, MS, MLS(ASCP)CM, New York State Department of Education
Program Area: GEN
Contact Hours/Level: 1.5/Intermediate

Presenters will share their experiences with two issues affecting the laboratory – licensure and unions. For licensure, the history of how licensure was realized in New York State, as well as the facts of the significance and impact of licensure on the clinical laboratory science profession and high-quality standards for patient care will be discussed. For unions, the history of unions, pros and cons of unions in healthcare and the success of Kaiser Permanente’s unique labor/management partnership (LMP), the Alliance of Health Care Unions, will be discussed.

Case Study and Research Presentations
Program Area: GEN
Contact Hours/Level: 1.5/Intermediate

Highest-rated by peer review, member-submitted research and case studies will be presented orally.
**FISH Troubleshooting**  
Jun Gu, MD, PhD, CG(ASCP), University of Texas, MD Anderson Cancer Center, School of Health Professions  
Jason Yuhas, BS, CG(ASCP)CM, Mayo Clinic Genomics  
Program Area: CMB  
Contact Hours/Level: 1.0/Advanced

Struggling with FISH testing? Bring your concerns and get help from your peers in this group discussion.

**Updates on HPV Vaccinations**  
Ana Oliviera, DrPH, University of Alabama at Birmingham  
Program Area: I  
Contact Hours/Level: 1.0/Intermediate

Human Papilloma Virus (HPV) is a group of viruses that causes genital warts and cancer in women and men. It is estimated that 80 percent of people will have an HPV infection in their lifetime. An effective vaccine against HPV has been recommended since 2006. HPV vaccination updates will be discussed.

**Laboratories in the Crosshairs: Government Enforcement Trends in the Laboratory Space**  
Scott Grubman, JD, Chilivis Cochran  
Program Area: QA  
Contact Hours/Level: 1.0/Intermediate

Government regulators continue to focus their attention on healthcare providers, and clinical laboratories remain a key focus on the government’s enforcement activity. Hear from a former federal healthcare fraud prosecutor turned defense attorney on key government initiatives, enforcement trends, and proactive compliance tips.

**Seven Things You Need to Know about Six Sigma Metrics**  
Sten Westgard, MS, Westgard QC  
Program Area: GEN  
Contact Hours/Level: 1.0/Intermediate

This session will describe the Six Sigma Metric approach for laboratory testing, a practical way to apply the quality management tools of Six Sigma without having to join a cult. No green belts, black belts, or master black belts required. Sigma metrics are an objective tool.

**DCLS: One Year in Practice Review**  
Brandy Gunsolus, DCLS, MLS(ASCP)CM, Augusta University Medical Center  
Program Area: GEN  
Contact Hours/Level: 1.0/Intermediate

With a full year of Doctor of Clinical Laboratory Science (DCLS) in professional practice, commonly asked questions are: What has it been like? What is a typical day? How have physicians responded? Answers to these and many other questions in this interview-style format from the first DCLS in practice and her colleagues.
METAPHASE FISH – A Powerful Tool in Cancer Cytogenetics
Carlos Tirado, PhD, FACMGG, Allina Health Inc.
Program Area: CMB
Contact Hours/Level: 1.0/Advanced

Fluorescence in situ hybridization (FISH) is a powerful technique used in the detection of chromosomal abnormalities. The high sensitivity and specificity of FISH and the speed with which the assays can be performed have made FISH a pivotal cytogenetic technique that has provided significant advances in both the research and diagnosis of hematological malignancies and solid tumors. From a medical perspective, FISH can be applied to elucidate complex rearrangements where G banding is inconclusive. I am presenting several cases where G banding was not able to give us an answer. FISH on previously G banded metaphases helped in all situations to characterize complex rearrangements where a specific abnormality was associated with a particular hematological malignancy. It helped to monitor the progression of an abnormality in both the diagnosis of a genetic disease or suggested prognostic outcomes. With the new WHO where more chromosomal abnormalities are being considered in certain neoplasias and tumors, metaphase FISH has revolutionized the field of cancer cytogenetics and has become well established in its potential as a diagnostic and discovery tool in the fight against cancer.

3:15 pm - 4:15 pm

Global Health and Point-of-Care (POC) Diagnosis: Importance of Isothermal Techniques
Nilanjan Lodh, PhD, MSc, Marquette University
Program Area: CMB/POC
Contact Hours/Level: 1.0/Intermediate

The global burden of neglected tropical diseases (NTDs) caused mainly by parasites effects the world’s poor disproportionately. Major diagnostic tests to identify infected patients and monitor the impact of mass drug administration (MDA) programs are not sensitive and specific. A highly-sensitive diagnostic method using species-specific DNA is needed.

Pathogen Reduction Technologies for Blood Components
Alicia Bellido Prichard, MBA, MT(ASCP)SBB, AABB
Program Area: IH
Contact Hours/Level: 1.0/Intermediate

Pathogen Inactivation of platelets is becoming more prevalent and more hospitals are requesting PRT products. This presentation will address the benefits of the products, as well as how the process is performed in the manufacturing lab, how the inventory is monitored at the hospital and by the distribution center to minimize wastage discard or the unnecessary manufacture of the products. The upcoming changes to regulations will also be addressed.

Health and Laboratory Data – Yes, There’s an App for That
Andrea Pitkus, PhD, MLS(ASCP)CM
Program Area: GEN
Contact Hours/Level: 1.0/Intermediate

Come and learn about applications (apps) popping up on smartphones and within EHRs, and how they use laboratory data. What are the advantages and challenges in representing lab data with these new paradigms? Attendees can set up and view their health data from participating facilities on their phones:
www.apple.com/ios/health
Overcoming Phlebotomy Shortages Across a Healthcare System
Estelle Ninnemann, MT(ASCP), ACL Laboratories
Carolyn Sabady, PBT(ASCP), ACL Laboratories
Program Area: PHL
Contact Hours/Level: 1.0/Intermediate

The phlebotomist plays an instrumental role in healthcare and many laboratories are challenged with hiring and retaining phlebotomists. Phlebotomy vacancies may cause increased patient wait times and short cuts, which may negatively impact quality of care. It is time to become creative and embrace opportunities to solve phlebotomy staffing challenges.

Staffing and Job Searching in Cytogenetics and Molecular
Melissa Owens, BS, CHP, Allied Search Partners
Program Area: CMB
Contact Hours/Level: 1.0/Intermediate

This session will include a look at staffing, and job searching, in cytogenetics and molecular fields. Attendees will also learn how to position their resume for job searching and career growth.