The APHL Annual Meeting is a 4-day conference of more than 500 professionals that addresses public health laboratory issues, trends and technologies relative to emerging infectious diseases, environmental health, emergency preparedness, informatics, food safety, newborn screening, global health and more. It consists of a member assembly, plenary sessions, general and breakout sessions, roundtables, posters and exhibits. The APHL Annual Meeting is open to anyone with an interest in public health laboratory science, policy and practice.

Learn more about contemporary issues in laboratory science

Network with partners and friends

Explore new ways to manage your laboratory

Contribute to multiple discussions

Visit 60+ exhibitors to see the latest in laboratory technology, supplies and services

**Who Attends?**

- State, county and city public health laboratory directors and personnel
- Clinical and academic institution managers and staff
- Environmental and agricultural laboratory directors and scientists
- Healthcare professionals and clinicians from public health agencies
- Federal agencies or state and local public health officials
- Clinical and academic laboratory managers and staff
- Others interested in laboratory issues

**Meeting Location**

The 2017 APHL Annual Meeting will be held in downtown Providence, RI at the [Rhode Island Convention Center](#). All sessions occur on the 5th floor while the exhibit hall, with the exhibitors, posters, awards and food and beverage events, will be on the 3rd floor. The headquarters hotel, the [Omni Providence Hotel](#), is connected via an enclosed sky bridge. Both are located in the heart of downtown within easy walking distance of numerous restaurants, attractions and shopping. To help plan your stay in Providence, visit [Go Providence](#).
Session Topics
This year APHL solicited session proposals from its standing committees and the general membership, which resulted in many excellent proposals. To assist you in determining the general area of interest, we have given each session a letter symbol which corresponds with the topic that it represents. This guide is listed below.

<table>
<thead>
<tr>
<th>Symbol</th>
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<td>NBS</td>
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<td>Workforce Development</td>
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Competencies
The Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories (APHL) published Competency Guidelines for Public Health Laboratory Professionals in a May 2015 Morbidity and Mortality Weekly Report (MMWR) supplement issue. These competency guidelines were developed with a focus on public health laboratory (PHL) practice and are intended to form the foundation of competency-based approaches to strengthen that practice, including integration into workforce development initiatives such as training and education programs.

In support of efforts to further the adoption and implementation of Guidelines, each session in the Annual Meeting program will include one or more symbols corresponding to the related competency domain(s) that the session addresses. This guide is listed below.

<table>
<thead>
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<th>Symbol</th>
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<td>QMS</td>
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<td>General Laboratory Practices</td>
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<td>Bioinformatics</td>
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<td>RES</td>
<td>Research</td>
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Registration

Conference Registration Fee: $525/member, $650/Non-Member, $150/Student
Pre-Conference Workshop Registration Fee: $95 each

Payment may be made by credit card or check.

Advanced registration through APHL is required; registration is currently open. Go to the conference webpage [www.aphl.org/AM](http://www.aphl.org/AM) to register. If you have any questions or problems, please contact Terry Reamer at 240.485.2776 or terry.reamer@aphl.org.

Hotel Accommodations

The meeting will be held at the Rhode Island Convention Center in downtown Providence, RI. The headquarters hotel is the [Omni Providence Hotel](http://www.omnihotels.com/providence) which is attached to the convention center by sky walk (One W. Exchange St., Providence, RI 02903, 401.598.8000). They are located within easy walking distance of numerous restaurants and shops.

The conference room rate is $189.00 (plus tax) per night for a single or double. There are a very limited number of rooms at the federal per diem rate. Reservations may be made by calling 800.THE.OMNI or 401.598.8000. Be sure to mention you are attending the “APHL Annual Meeting” to receive this rate. You may also reserve online. This rate is valid until May 9, 2017 or until the block is filled. This block may fill up quickly so be sure to make your reservation early. These rates are available three days before and after the meeting based on availability. One night’s deposit is due when making a reservation but is refundable providing your cancellation is made more than 24 hours before check-in. There is a fee for early departure.

Visit These Exhibitors! (as of February 3, 2017)

- A2LA
- Abbott Laboratories
- ABSA International
- American Public Health Association
- Applied Maths
- Art’s Way Scientific, Inc.
- Aspyra/BTLIMS
- BD Diagnostics
- BioFire Diagnostics
- Bio-Rad Laboratories
- Biotage
- BioTek Instruments
- Bruker
- Cepheid
- Chembio Diagnostics
- ChemWare, LLC
- Eagelson Institute
- EUROIMMUN US
- Fujirebio US
- Genial Compliance Systems
- GenMark Dx
- Germfree Laboratories, Inc.
- Grifols
- HDR
- Healthpac Computer Systems
- Hologic
- IDEXX
- Illumina
- InBios International, Inc.
- Luminex Corporation
- Magellan Diagnostics
- MAXAIR Systems
- MediaLab, Inc.
- Meridian Biosciences, Inc.
- MRIGlobal
- National Jewish Health
- Orchard Software Corp.
- PerkinElmer
- Promega
- Puritan Medical Products
- QIAGEN, Inc.
- Qualtrax
- Quantabio
- Roche Diagnostics
- SCIEX
- STACS DNA
- Streck
- Thermo Fisher Scientific
- UberOps
- Waters Corporation
- Worldwide Diagnostics
- Zymo Research Corp.

Visit [www.aphl.org/AM](http://www.aphl.org/AM) for exhibitor contact information and further details.
Continuing Education Credits Available

APHL is an approved provider of continuing education programs in the clinical laboratory sciences through the American Society of Clinical Laboratory Science (ASCLS) P.A.C.E.® program. Attendees have the opportunity to earn up to 15.0 contact hours by attending the entire conference. Attendance rosters must be signed in each attended session that credit is requested for and the P.A.C.E.® certificate must be signed and certified by APHL staff at the registration desk at the end of your time at the conference.

APHL is an approved provider of Certified in Public Health (CPH) Recertification Credits through the National Board of Public Health Examiners (NBPHE). Attendees have the opportunity to earn up to 11 hours of credit by attending the entire conference. APHL will not issue certificates of attendance.

Thank You to These Sponsors for Their Support!

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Sponsorship and exhibiting opportunities are available. For more information, contact Lori Richardson-Parr (lori.richardson-parr@aphl.org or 240.485.2792) or Terry Reamer (terry.reamer@aphl.org or 240.485.2776).
**Enhance Your Experience With the Conference Mobile App**

Available in May at no cost on iPhone, iPad and Android phones and tablets.

- Connect with the conference anytime, anywhere, whether or not you are onsite.
- Access details on sessions, posters, sponsors, exhibitors and speakers before the meeting and onsite.
- Navigate the convention center and downtown Providence with restaurant listings and mapping.
- Personalize your experience by tagging sessions, exhibitors, city destinations, and creating exportable notes.
- Receive alerts, reminders or changes about the conference on site in real time.
- Follow APHL social sites and the daily conference summary from within the app.

**Special Events**

**Pre-conference Workshops**  
Sunday, June 11, 8:00 – 11:30 am  
Register separately for these workshops

**Welcome Reception**  
Sunday, June 11, 5:30 – 7:00 pm  
*Sponsored by Roche Diagnostics*

**Innovate! (formerly Industry Workshops)**  
Monday, June 12, 8:00 – 8:45 am  
Join your industry partners at these breakfast sessions to learn about new technologies and services.

**Networking Reception**  
Monday, June 12, 5:00 – 6:00 pm

**Awards Ceremony and Breakfast**  
Tuesday, June 13, 9:00 – 10:30 am  
Celebrate your colleagues’ achievements.  
*Sponsored by Hologic*

**Dr. Katherine Kelley Distinguished Lecture**  
Tuesday, June 13, 2:00 – 3:00 pm  
*Current Challenges for Public Service Leaders*  
Isaac Ashkenazi, MD, MSc, MPS, MSN, International Expert for Crisis Management and Leadership

**Exhibit Hall Raffle**  
Tuesday, June 13, 1:30 – 2:00 pm  
Visit all the exhibitors between Sunday and Tuesday for your chance to win a prize such as an airline ticket, gift cards or cash.

**Member Assembly**  
Tuesday, June 13, 5:00 – 6:00 pm

**Optional Tour, Rhode Island Public Health Laboratory**  
Wednesday, June 14, 1:00 – 3:00 pm
**APHL Experience**

Connect with APHL staff and discover more about APHL! Come visit us during breaks as we demonstrate new tools and programs created for you! Open throughout the conference with scheduled demo times.

Previous demonstrations include:

- Human Resources: Hiring and Inspiring
- General Laboratory Competency Tool
- Newborn Screening and Genetics Program Resources
- Water Laboratory Alliance Analytical Preparedness Tools
- Electronic Laboratory Reporting (ELR) for Animal Rabies
- Take Advantage of Your Member Benefits
- Public Health Laboratory System Database (PHLSD)
- Laboratory System Improvement Program (L-SIP)
- Environmental Public Health Tracking Network Portal

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**Consent to Use Photographic Images**

Registration and attendance at or participation in APHL Meetings and other activities constitutes an agreement by the registrant to APHL’s use and distribution (both now and in the future) of the registrant’s or attendee’s image or voice, without compensation, in photographs, videotapes, electronic reproductions and audiotapes of such events and activities.
AGENDA OF EVENTS

SATURDAY, JUNE 10, 2017

4:00 pm – 7:00 pm
Registration
East Prefunction

SUNDAY, JUNE 11, 2017

7:00 am – 6:00 pm
Registration
East Prefunction

8:00 am – 11:30 am
Pre-Conference Workshops (separate registration required)

Bioinformatics: A Primer ID BIO
Ballroom D
(588-828-17, 3.0 contact hours for this session)

Attendees will participate in a combination of lectures and exercises that will focus on different bioinformatics approaches, tools and outputs for the analysis of next generation sequencing data. The workshop assumes a strong understanding of next generation sequencing techniques and the generation of next generation sequencing data and will instead focus solely on data analysis techniques and applications.

At the conclusion of this session, the participant will be able to:

• Describe commonly used NGS data analysis tools and when to appropriately apply them
• Interpret basic NGS data outputs (e.g., phylogenetic trees)

Speakers:

Duncan MacCannell, PhD, Centers for Disease Control and Prevention
Joel Sevinsky, PhD, Colorado Department of Public Health and Environment
PHL Competencies: Hands-on Practice with New Competencies Tools  

552AB  

(588-829-17, 3.0 contact hours for this session)

Following the publication of the PHL Comps Guidelines, work teams developed tools for implementation of the competencies in the public health laboratory organization. During this workshop, participants will have the opportunity to work with new competencies tools and are encouraged to bring materials from their laboratory to use with the tools. Participants will work with position description building tool, career ladder tool, personal competencies assessment tool, and building the specifics of skills and behaviors for a competency.

At the conclusion of this session, the participant will be able to:

• Describe competencies and their application in the laboratory
• Develop a position description using the competencies tool
• Develop a career path and career ladder for their organization
• Identify the elements of a competencies assessment tool

Moderator: Catherine M Johnson, MA, MT(ASCP), Association of Public Laboratories

Renée M. Ned-Sykes, MMSc, PhD, Centers for Disease Control and Prevention

Susanne Norris Zanto, MPH, MLS(ASCP)CM, SM, Laboratory SolutionZ

Leah D. Gillis, MS, PhD, HCLD(ABB), Florida Bureau of Public Health Laboratories - Miami

Deborah K. Severson, BSMT(ASCP), Fairfax County Health Department

What the Quality Guru in Your Laboratory Should Know: Free APHL Tools and Resources for Your Quality Manager  

551AB  

(588-830-17, 3.0 contact hours for this session)

This interactive workshop will give an overview of APHL-developed quality manager tools and provide interactive group activities using tools to perform every day QMS activities. Attendees will have the opportunity to learn by practical experience by using selected tools in hands-on group activities to solve some common quality management scenarios.

At the conclusion of this session, the participant will be able to:

• List the quality manager tools available from APHL
• Outline how to use the QS manager position description to choose the right applicant
• Implement one QMS tool in the laboratory

Moderator: Karen Breckenridge, MBA, MT(ASCP), Association of Public Health Laboratories
Checklist for What a Quality Manager Should Know  
Jill J. Power, MS, M(ASCP), CMQ/OE(ASQ), New Hampshire Public Health Laboratories

How to Write a Quality Systems Procedure Manual  
Karen Sanderson, BHS, MT(ASCP)SC, North Carolina State Laboratory of Public Health

Conducting an Internal Audit  
Yvonne Salfinger, MS, MT(AAB), APHL Consultant

11:30 am – 1:30 pm  
Lunch on your own

1:30 pm – 3:30 pm  
Opening Session

1:30 pm – 2:00 pm  
Welcome to Providence  
Ballroom A

Moderators: A. Christian Whelen, PhD, APHL President and Director, Hawaii State Laboratories Division  
Ewa King, PhD, APHL President-Elect, 2017 Annual Meeting Planning Committee Chair and Director, Rhode Island State Public Health Laboratory

Nicole Alexander-Scott, MD, MPH, Director, Rhode Island Department of Health  
Scott Becker, MS, Executive Director, Association of Public Health Laboratories

2:00 pm – 3:30 pm  
Plenary Session

Public Health Labs Combating Antimicrobial Resistance on the Population Level  
Ballroom A

(588-800-17, 1.5 contact hours for this session)

Antimicrobial resistance is one of the most significant public health threats we face and the public health system is playing a growing role in the surveillance of resistance, characterization of the mechanisms of resistance, and response to existing and emerging resistance. This session will provide an overview of the latest public health efforts to combat the threat and take a closer look at emerging resistance patterns and the latest diagnostics for Candida species and Neisseria gonorrheae.
At the conclusion of this session, the participant will be able to:

• Describe the testing services offered by the ARLN and outcomes of the first few months of testing
• Identify procedures necessary to correctly identify Candida auris

Moderator: Joanne Bartkus, PhD, D(ABMM), Minnesota Department of Health

Overview of the Antimicrobial Resistance Laboratory Network
Jean Patel, PhD, D(ABMM), Centers for Disease Control and Prevention

The Public Health Benefit of CRE Colonization Testing
Alison Brown, PhD, Centers for Disease Control and Prevention

Candida auris: A New AR Threat
Sudha Chaturvedi, PhD, New York State Department of Health

Trends in Drug Resistant Gonorrhea
Olusegun O. Soge, PhD, University of Washington (Invited)

3:30 pm – 4:00 pm
Break in the Exhibit Hall
Exhibit Halls CD
Sponsored by Bio-Rad Laboratories

3:30 pm – 7:00 pm
Exhibit Hall Open
Exhibit Halls CD

3:30 pm – 7:00 pm
Posters available for viewing in the exhibit hall
Exhibit Halls CD
4:00 pm – 5:30 pm

**Concurrent Sessions**

**Laboratory Biosafety Outreach and Education: Stories from the Field in the Post-Ebola Era**

Ballroom A

(588-801-17, 1.5 contact hours for this session)

Speakers will share laboratory biosafety outreach and education experiences from the local and state levels. This session will review curriculum design, delivery of biosafety training and discuss the critical roles of communication, networking and post-training activities to support the implementation of laboratory biosafety programs.

At the conclusion of this session, the participant will be able to:

- Define resources needed to plan, promote and deliver laboratory biosafety training for public health and clinical laboratories
- Address some of the challenges associated with biosafety outreach and education as well as strategies to meet those challenges

**Promoter: Mary Ann Sondrini, EdM, Eagleson Institute**

**Promoting Biosafety: How Far Have We Come?**

Michael Pentella, PhD, D(ABMM), University of Iowa College of Public Health

**Biosafety Outreach and Education in Small Town America**

Timothy Southern, PhD, D(ABMM), South Dakota Public Health Laboratory

**Biosafety and the City: Sentinel Lab Outreach in the Big Apple**

Anna Liddicoat, MPH, New York City Department of Health and Mental Hygiene

**What Does an Integrated Food Safety System Mean for Laboratories?**

Ballroom D

(588-802-17, 1.5 contact hours for this session)

This session highlights the goals of an integrated food safety system and explores actions needed to facilitate mutual reliance between state and federal partners.

At the conclusion of this session, the participant will be able to:

- Describe the goals of an integrated food safety system and actions being taken to implement it
- Demonstrate the accuracy and defensibility of laboratory data and be able to communicate the importance of mutual reliance
Moderator: Yvonne Salfinger, MS, APHL Consultant

Vision for an Integrated Food Safety System
Barbara Cassens, US Food and Drug Administration

Curriculum Framework for State Food and Feed Laboratory Professionals
Christopher Weiss, PhD, International Food Protection Training Institute (IFPTI)

Laboratory Data Sharing and Acceptance
Kathryn Wangsness, MHA, Arizona State Public Health Laboratory

Mutual Reliance: New York Agriculture’s Perspective
Maria Ishida, PhD, New York Department of Agriculture and Markets

Diarrheal Diseases as Enteric Pathogens
552AB

Large-scale global efforts are accelerating advancements in the development of critical health interventions against the world’s most deadly and debilitating infectious diseases. As new vaccines and other therapeutics move into late stage clinical studies, the importance of the quality laboratory testing becomes even more critical. During this session the presenters will provide the results of laboratory testing to provide key diagnostics and surveillance information needed to ensure accurate decisions are made during development of new vaccines, drugs and other interventions against infectious diseases.

At the conclusion of this session, the participant will be able to:

• Discuss the status of new vaccines against Shigella and ETEC in development and against global killers such as diarrheal diseases
• List new laboratory-based molecular tools that have been developed to support vaccine development efforts
• Describe how new laboratory surveillance tools are being used in developing countries to improve our understanding of the pathogens that cause diarrheal disease through large global initiatives, such as the Global Enteric Multicenter Study (GEMS)

Moderator: Brandon Troy Leader, PhD, Program for Appropriate Technology in Health

John Besser, PhD, Centers for Disease Control and Prevention (Invited)
Karen Kotloff, University of Maryland School of Medicine (Invited)
James Platts Mills, University of Virginia School of Medicine (Invited)
The Northern Lights Department of Energy led, multi-agency, full scale exercise was designed to test the radiological consequence management issues three weeks after a nuclear power plant accident in Minnesota. One of its primary objectives was to exercise “end-to-end” laboratory analysis processes. The Minnesota state laboratory and state laboratories in the Food Emergency Response Network as well as other federal laboratories had the opportunity to analyze realistic fresh fission product samples that would be generated by this type of event. Attendees will hear lessons learned from state and federal participants.

At the conclusion of this session, the participant will be able to:

- Describe the challenges of analyzing samples containing fresh fission products
- List the lessons learned from the exercise and the opportunities to better prepare for a radiological event
- Describe the roles of various federal partners and the integration of state assets in the response to the event

Moderator: Bob Read, PhD, Tennessee Department of Health

Planning and Execution of a Laboratory-focused Consequence Management Exercise: Northern Lights 2016
Philip Torretto, Lawrence Livermore National Laboratory

Northern Lights 2016 — A FRMAC Laboratory Analysis Perspective
Sean D. Fournier, Sandia National Laboratories, Federal Radiological Monitoring and Assessment Center (FRMAC)

Overview of EPA’s National Analytical Radiation Environmental Laboratory’s (NAREL) Participation in the Northern Lights Exercise
Cindy White, US EPA/National Analytical Radiation Environmental Laboratory

A State Lab’s Perspective on the Northern Lights 2016 Exercise
Jesse Fillmore, MS, Minnesota Department of Health

ICLN FERN Participation and Lessons Learned: Northern Lights Exercise 2016
Cong Wei, PhD, US FDA, Winchester Engineering and Analytical Center (WEAC)

CDC’s Emergency Response Bioassay Methods: Applications for a Nuclear Power Plant Incident Using the Northern Lights Exercise to Validate
Robert Jones, PhD, Centers for Disease Control and Prevention
5:30 pm – 7:00 pm
Welcome Reception in the Exhibit Hall
Exhibit Halls CD
Sponsored by Roche Diagnostics

6:00 pm – 6:30 pm
Poster authors available to answer questions
Exhibit Halls CD
MONDAY, JUNE 12, 2017

7:30 am – 5:30 pm
Registration
East Prefunction

7:30 am – 8:30 am
Coffee
West Hallway

8:00 am – 8:45 am
Innovate!
(formerly Industry Workshops)
Continental Breakfast
Sponsored by Industry Presenters

8:00 am – 9:30 am
Coffee
East Prefunction

9:00 am – 10:30 am
Concurrent Sessions

Understanding Public Health in the Cloud ▶ INF QMS
Ballroom A
(588-805-17, 1.5 contact hours for this session)

This session will review the ability and utility of cloud-based technologies and explore the ways that public health is making use of these technologies to enhance electronic data exchange. Experts in the field will describe the current platforms available for public health laboratories use and explain how these laboratories can leverage these services.

At the conclusion of this session, the participant will be able to:

• Define cloud computing and explain its relevance to public health
• Describe the benefits and challenges that cloud computing can offer the public health community
• Describe innovative and emerging cloud computing platforms that can be leveraged
to advance public health laboratories

**Moderator:** Patina Zarcone, MPH, Association of Public Health Laboratories

**Brian Lee,** MPH, PMP, Centers for Disease Control and Prevention

**Eduardo Gonzalez Loumiet,** MBA, PMP, CPHIMS, Uber Operations

**Safety and Accuracy of MALDI-TOF Technology to Detect Emerging Threats**

Ballroom D

(588-806-17, 1.5 contact hours for this session)

Several public health laboratories and clinical laboratories have begun to adopt MALDI-TOF, a mass spectrometry-based analysis to identify bacteria and toxin activity. Prior to full implementation of MALDI-TOF, there are several considerations including training of staff, biosafety, sample preparation techniques, accuracy of the technology and databases, as well as limitations of this technology in clinical settings. This session will focus on the findings of two APHL studies which examined the safety and accuracy of MALDI-TOF technologies, as well as provide an overview of CDC’s virtual reference laboratory, MicrobeNet, including existing databases and limitations.

At the conclusion of this session, the participant will be able to:

- Describe MALDI-TOF technology and its use in private, clinical and public health laboratories
- Explain recommendations and limitations to public health and sentinel clinical laboratories using this emerging technology
- Describe how MicrobeNet could assist with matching results from diagnostic tests against CDC’s collection of pathogens

**Moderator:** Maureen Sullivan, MPH, Minnesota Public Health Laboratories Division

**Safety and Accuracy of MALDI-TOF Technologies**

James T. Rudrik, PhD, Michigan Department of Health and Human Services

**Considerations for Implementing MALDI-TOF Technologies in Public Health and Clinical Laboratories**

Christina Egan, PhD, New York State Department of Health

**Accuracy and Limitations of MALDI-TOF Databases**

John R. McQuiston, PhD, Centers for Disease Control and Prevention
The Future of STD Testing: Addressing the Ongoing Challenges

Many cases of chlamydia, gonorrhea and syphilis go undiagnosed and unreported, and estimated rates of non-reportable STDs (HPV, trichomonas and HSV) are high. This session will discuss the latest technologies for point of care testing for STDs and how rapid STD diagnosis can reduce disease transmission. As STD testing moves into non-traditional settings, public health laboratory professionals have a role in assuring quality testing and results, by assisting in test selection, training, test interpretation and the need for additional testing.

At the conclusion of this session, the participant will be able to:

- Describe new testing methodologies available for STD testing, especially at the point of impact
- Explain how rapid STD testing and diagnosis can impact disease transmission
- Discuss ways that public health laboratorians can assist STD Programs in assuring quality testing in non-traditional settings

Moderator: Richard Steece, PhD, D(ABMM), Tennessee Department of Health: Laboratory Services

What Is Hot in the World of Point of Care Tests for Sexually Transmitted Infections: Self Collection and New Tests
Charlotte A. Gaydos, MS, MPH, DrPH, Johns Hopkins University

Health Departments: Your Partners in Implementing Emerging Test Technology
Jessica Frasure-Williams, MPH, National Coalition of STD Directors

Implementation of Rapid Tests and Public Health Laboratory Implications
Anthony Tran, DrPH, MPH, D(ABMM), District of Columbia Department of Forensic Sciences

Competency Implementation: What’s New and How Do We Advance?

This session will include presentations of new tools and resources to aid laboratories with implementation of the Competency Guidelines for Public Health Laboratory Professionals (MMWR 2015). Presenters will share first-hand experiences with using or integrating the competencies into human resources processes and into fellowship and professional development programs.
At the conclusion of this session, the participant will be able to:

- Discuss the newly developed competency implementation tools and resources and how they can be used
- Describe the challenges and successes of competency implementation into human resources processes, personnel management and staff recruitment and development initiatives

Moderator: Renee Ned-Sykes, MMSc, PhD, Centers for Disease Control and Prevention

New Tools and Resources Available to Help Advance Competency Adoption and Implementation
Leah D. Gillis, MS, PhD, HCLD(ABB), Florida Bureau of Public Health Laboratories – Miami

Experiences and Resources toward Developing a Career Ladder in a Local Lab Setting
Deborah K. Severson, MT(ASCP), Fairfax County (VA) Health Department Laboratory

Implementing a Competency-based Curriculum for CDC’s Laboratory Leadership Service (LLS) Fellowship Program
Xin Liu, PhD, Centers for Disease Control and Prevention

Incorporating Competencies into APHL's Fellowship Programs
Heather Roney, MA, Association of Public Health Laboratories

10:00 am – 6:00 pm
Exhibit Hall Open
Exhibit Halls CD

10:00 am – 6:00 pm
Posters available for viewing in the exhibit hall
Exhibit Halls CD

10:30 am – 11:00 am
Break in the Exhibit Hall
Exhibit Halls CD
Sponsored by QIAGEN
11:00 am – 12:30 pm  
**Plenary Session**

**Advancing Molecular Detection in Environmental Matrices: Innovations in Technology and Partnerships**  
*ELS  BIO  INF  MCB  COM*

Ballroom A  
(588-809-17, 1.5 contact hours for this session)

Applications AMD techniques are important for rapid microbial ID, molecular source tracking and real-time epi investigations as well as public health decision-making. While technologies like next-gen sequencing (NGS) provide comprehensive inventory of microbial communities in the environment, the value of public-private partnering in academia, public health and industries will be discussed during the session.

At the conclusion of this session, the participant will be able to:

- Describe the environmental distribution patterns of microbial populations through next-generation metagenomics
- Discuss insights on NGS applications for microbial contamination in environmental sources to mitigate risks of water-related diseases
- Explain the value of public-private partnerships in genomic applications for waterborne illness investigations at local and state jurisdictions

**Moderator:** Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department

Rita Colwell, PhD, University of Maryland/CosmosID  
Orin Shanks, PhD, US Environmental Protection Agency  
Vince Hill, PhD, Centers for Disease Control and Prevention

12:30 pm – 2:00 pm  
**Lunch in the Exhibit Hall (provided)**

Exhibit Halls CD  
Visit with the exhibitors and view the posters

1:00 pm – 1:30 pm  
*Poster authors available to answer questions*

Exhibit Halls CD
2:00 pm – 3:30 pm

Concurrent Sessions

Public Health Laboratory Legionnaires Disease Outbreak Response and Preparedness

Ballroom A

(588-810-17, 1.5 contact hours for this session)

Every year, many state and local public health laboratories are involved in Legionnaires disease (LD) cluster and outbreak investigations, which are often complex and challenging. Speakers in this session will discuss the logistics of a recent LD outbreak response, describe molecular methods for facilitating an LD investigation, share lessons learned from a large investigation and present a toolkit available for all state and local public health laboratories to increase their preparedness for an LD response, regardless of current Legionella testing capacity.

At the conclusion of this session, the participant will be able to:

• Discuss the steps and challenges of a PHL Legionnaires disease investigation
• Describe methods and tools that can facilitate a PHL response and preparedness

Moderator: Brian Raphael, PhD, Centers for Diseases Control and Prevention

Trace Back to the “Source” — The Collaborative Effort to Detect the Source of a Legionella Outbreak in Minnesota
Dave Boxrud, MS, Minnesota Department of Health

Investigating Legionella: PCR Screening and Whole-Genome Sequencing
Kimberlee Musser, PhD, New York Department of Health

Bacteria in the Mist: Legionella in New York City
Jennifer Rakeman, PhD, New York City Department of Health and Mental Hygiene

Legionnaires Disease Laboratory Response Plan: Are You Ready?
Anna Llewellyn, PhD, Centers for Disease Control and Prevention
Quality Management Stories: Keeping Your PHL Director Out of Jail  
Ballroom D  
(588-811-17, 1.5 contact hours for this session)  
Join your colleagues to hear how the various sized PHLs are facing the challenges in designing and maintaining an effective and efficient quality management system. Topics will include information gained from years of experience in participating in regulatory inspections and structuring quality-related activities and a discussion on the top 10 CLIA deficiencies most commonly cited and how to avoid them. Lessons from the past and tools for the future will be shared.

At the conclusion of this session, the participant will be able to:

- List three elements of a strong quality management infrastructure
- Describe two quality improvement activities that have improved PHL efficiencies in two different areas of the PHL

Moderator: Jill J. Power, MS, M(ASCP), New Hampshire Public Health Laboratories

Quality Management Structure in a Large Multi-Purpose Laboratory: What Model Works Best?  
Steve Marshall, MS, MPH, Wisconsin State Laboratory of Hygiene

Quality Management in a Small Public Health Laboratory: All Hands on Deck!  
Tim Southern, PhD, South Dakota Public Health Laboratory

Designing and Implementing a Quality Management System at the Local Laboratory Level  
Deborah Severson, MT(ASCP), Fairfax County (VA) Health Department Laboratory

Lessons Learned: When Gene Sequencing Meets Newborn Screening  
NBS ETH BIO CHM QMS  
552AB  
(588-812-17, 1.5 contact hours for this session)  
In February 2017, APHL in collaboration with CDC and HRSA convened a Gene Sequencing in Public Health Newborn Screening Meeting, whose purpose was to discuss the current status of uptake in NBS, laboratory and follow up needs and barriers and solutions for the integration of gene sequencing into NBS. This session will feature results from a 2016 survey to assess the current status of molecular testing in state NBS laboratories, barriers, solutions and next steps towards integration of sequencing assays into NBS and ethical issues involved in using sequencing as a NBS technique.
At the conclusion of this session, the participant will be able to:

- Describe the current status of gene sequencing in newborn screening across the US
- Explain ethical issues involved in conducting gene sequencing for newborns

Moderator: Guisou Zarbalian, MS, MPH, Association of Public Health Laboratories

**The Role of Targeted Gene Sequencing in US Newborn Screening Laboratories**

Suzanne Cordovado, PhD, Centers for Disease Control and Prevention

**Gene Sequencing in Public Health Newborn Screening: Are We Ready?**

Rachel Lee, PhD, Texas Department of State Health Services

**More Than Meets the Eye — Adding a Condition to the Newborn Screening Panel**

Michele Caggana, ScD, FACMG, New York State Department of Health

**Gene Sequencing in Newborn Screening: Clinical Dream or Ethical Nightmare**

Aaron Goldenberg, PhD, MPH, Case Western Reserve University School of Medicine

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**Biomonitoring — An Integral Component of Public Health Practice**

(588-813-17, 1.5 contact hours for this sessions)

Biomonitoring provides unique information useful in identifying human exposures, determining trends, detecting emerging issues and evaluating the effectiveness of environmental health interventions. Several efforts are underway to harmonize biomonitoring study designs and laboratory methods to ensure the quality and comparability of the data produced. This session provides updates on the state and federal programs, the National Biomonitoring Network and CHEAR and how states are using biomonitoring in routine public health practice.

At the conclusion of this session, the participant will be able to:

- Identify on-going efforts to ensure the quality and comparability of biomonitoring data
- Describe how local, state and federal public health partners use biomonitoring data in routine public health practice

Moderator: Amy L. Mowbray, PhD, Centers for Disease Control and Prevention

**State-based Biomonitoring Programs and NHANES Exposure Data**

Kristin Dortch, MS, Centers for Disease Control and Prevention

**CHEAR! The Children’s Health Exposure Analysis Resource**

Carin Huset, PhD, Minnesota Public Health Laboratory
The National Biomonitoring Network
Kenneth Aldous, PhD, New York State Department of Health

How Is Biomonitoring Data Used in Routine Public Health Practice?
Panel Discussion

3:30 pm – 4:00 pm
Break in the Exhibit Hall
Exhibit Halls CD

4:00 pm – 5:00 pm
Concurrent Sessions

Zika: A New Wrinkle at Every Turn
Ballroom A
(588-814-17, 1.0 contact hours for this session)

The challenges presented by the ongoing 2016 Zika pandemic are many: a complicated testing algorithm, diagnostic tools that do not provide clear results, developing relationships with new partners in maternal and child health and old partners in commercial laboratories, lack of congressional action on necessary appropriations. This session will provide a reflection on the lessons learned in 2016 as public health moves into the 2017 mosquito season.

At the conclusion of this session, the participant will be able to:

• Describe CDC’s guidance for approaching Zika surveillance in the 2017 mosquito season
• Discuss the experience of public health laboratories who investigated cases of local Zika transmission in 2016

Moderator: Sarah Vetter, PhD, Minnesota Public Health Laboratory Division

The Florida Experience: An Epidemiologist’s Perspective
Carina Blackmore, MD, Florida Department of Public Health

The Florida Experience: A Laboratory’s Perspective
Andrew Cannons, PhD, Florida Bureau of Public Health Laboratories - Tampa

Approaches to Zika Testing in 2017
Robert Lanciotti, PhD, Centers of Disease Control and Prevention
Using Narratives to Demystify Public Health Laboratory Science

Ballroom D

(588-815-17, 1.0 contact hours for this session)

Communicating about public health laboratory science isn’t always easy. Using narratives to convey the important role of the public health laboratory allows public audiences and the media to engage and connect with the PHL in a more meaningful way.

At the conclusion of this session, the participant will be able to:

• Use narratives to explain their work, to connect to audiences in a meaningful way and to engage in conversations about public health and science with non-scientists
• Discuss how storytelling can be extremely effective in achieving communication goals

Moderator: Michelle Forman, Association of Public Health Laboratories

The Science of Effective Storytelling
Liz Neeley, The Story Collider

Working Together for One Cause (Collaboration between State and Locals)

552AB

(588-816-17, 1.0 contact hours for this session)

This session will demonstrate how state and local laboratories can work together without competition. Through collaboration and commitment to achieve a functioning efficient public health lab system within the US.

At the conclusion of this session, the participant will be able to:

• Explain the value of collaborating between state and local laboratories in the public health laboratory system
• Describe how state and local mandates can be meet through working together
• List three to five examples of collaborations between state and local PHL’s

Moderator: Tamara Theisen, MT(ASCP), Saginaw County (MI) Department of Public Health
Mark Wade, San Antonio Metro Health District Laboratory

The Texas Public Health Laboratory Network: Partners in Health
Grace Kubin, PhD, Texas Department of State Health Services
Dispatches from the Opioid Crisis  EH  EMR

551AB

(588-817-17, 1.0 contact hours for this session)

The number of overdoses caused by the use of opioids, either prescribed or from illegal sources, has reached crisis proportions and has been declared to be a public health epidemic. The scope of the problem in Rhode Island and the role of the medical examiners and the toxicology laboratory in addressing the crisis will be described.

At the conclusion of this session, the participant will be able to:

- Describe the reasons why we are experiencing the opioid overdose crisis
- Describe the scope and severity of the opioid overdose crisis
- Discuss the role of public health laboratories in the response to the opioid crisis

Moderator: Ewa King, PhD, Rhode Island State Health Laboratories

Rhode Island Medical Examiner Perspective on the Opioid Crisis

Ariel Goldschmidt, MD, Office of the State Medical Examiners, Rhode Island Department of Health

Forensic Toxicology Trend: The Opioid Epidemic

Laurie Ogilvie, MS, D-ABFT-FT, Forensic Toxicology, Rhode Island State Health Laboratories

5:00 pm – 6:00 pm

Networking Reception in the Exhibit Hall

Exhibit Halls CD
TUESDAY, JUNE 13, 2017

7:30 am – 5:30 pm
Registration
East Prefunction

7:30 am – 8:30 am
Coffee
West Hallway

8:00 am – 8:45 am
Roundtables

Analytical Tools and Approaches for WGS: Addressing the Needs in PHLs

This session will present an overview of current analytical approaches and tools used with whole genome sequencing in public health. A wealth of analytical tools (‘pipelines’) exist, including command line and commercial over the shelf tools. Does public health need them all or can most public health needs be met using a few standardized tools such as BioNumerics? The session will address the pros and cons for the different approaches and tools and discuss the most efficient way moving forward in public health laboratories in the US.

Moderator: Peter Gerner-Smidt, MD, ScD, Centers for Disease Control and Prevention
Duncan MacCannell, PhD, Centers for Disease Control and Prevention
Dave Boxrud, MS, Minnesota Public Health Laboratory Division
Bill Wolfgang, PhD, New York State Department of Health

CoPs and Donuts: The Value of Communities of Practice

The session will provide a forum for discussing the use of CoPs in the PHL context and provide practical examples of how they have been used. Participants will have an opportunity to share their own CoP examples including benefits, challenges and lessons learned.

Lorelei Kurimski, MS, State Hygienic Laboratory at the University of Iowa
Michael Pentella, PhD, D(ABMM), University of Iowa College of Public Health
Rabies Testing: Ignored by Inspectors but Still a Critical Component of Public Health and the QA Plan

The APHL Infectious Disease Committee has developed a Rabies Laboratory Assessment Tool to assist laboratories in having the rabies lab section audited for quality and safety as other laboratory sections are. The availability of this newly vetted tool provides an opportunity for laboratories to strengthen their laboratory practices by working independently or collaboratively on self-assessment.

Moderator: Jafar Razeq, PhD, Katherine A. Kelley Public Health Laboratory (CT)

Experience Piloting the Rabies Laboratory Assessment Tool

Sandra Smole, PhD, William A. Hinton State Laboratory Institute (MA)
Anthony Muyombwe, PhD, Katherine A. Kelley Public Health Laboratory (CT)

The L-SIP Update: Stories from Recent L-SIP Participants

Several recent Laboratory System Improvement Program (L-SIP) participants will share their L-SIP assessment experience. The roundtable session will allow for discussion on the advantages of conducting an L-SIP assessment and include information about post-assessment quality improvement activities that were started as a result of completing an L-SIP assessment.

Moderator: Tina Su, MPH, Association of Public Health Laboratories

Tim Southern, PhD, D(ABMM), South Dakota Public Health Laboratory
Nicole Green, PhD, D(ABMM), Los Angeles County (CA) Public Health Laboratory

8:00 am – 9:30 am

Coffee
East Prefunction

9:00 am – 10:30 am

Awards Ceremony and Breakfast
Exhibit Halls CD
Sponsored by Hologic
9:00 am – 2:00 pm
Posters available for viewing in the exhibit hall
Exhibit Halls CD

10:00 am – 2:00 pm
Exhibit Hall open
Exhibit Halls CD

10:30 am – 11:00 am
Break in the Exhibit Hall
Exhibit Halls CD

11:00 am – 12:30 pm
Plenary Session

Where Are We Now? Updates on Culture-Independent Diagnostic Tests (CIDTs) and Their Impact on Public Health Surveillance
Ballroom A
(588-818-17, 1.5 contact hours for this session)

Since 2013, several companies have received FDA approval of culture-independent, multi-analyte nucleic acid panels for the detection of a wide range of enteric and non-enteric pathogens. This session will provide updates on studies and efforts related to culture-independent diagnostic tests and the impact on public health surveillance systems. Partnerships with academia, clinical and public health sectors will be highlighted to address solutions for the preservation of isolates needed for current public health surveillance testing.

At the conclusion of this session, the participant will be able to:

• List current multi-analyte molecular panels for enteric and bacterial central nervous system (CNS) infections available on the marketplace
• Describe approaches CDC is leading with partnerships in industry, federal agencies and clinical laboratories in addressing culture independent diagnostic tests (CIDTs) and its impact on public health surveillance systems
• Define how state public health laboratories are adapting to the implementation of culture independent diagnostic tests (CIDTs) by clinical laboratories

Moderator: Tim Monson, Wisconsin State Laboratory of Hygiene
CIDT Regulatory Workgroup: Industry/Public Health Partnerships in Addressing CIDTs
John Besser, PhD, Centers for Disease Control and Prevention

Reshaping the Enterics Workbench: Tennessee’s Experience with CIDTs
Amy Woron, MS, PhD, Tennessee Department of Health: Laboratory Services

The First Fully Automated Molecular Diagnostic Panel for Meningitis and Encephalitis: How Well Does It Perform and When Should It Be Used?
Kimberly Hanson, PhD, University of Utah

Life After Culture
Peter Shult, PhD, Wisconsin State Laboratory of Hygiene

12:30 pm – 2:00 pm
Lunch (on your own)
Visit with the exhibitors and view posters

1:30 pm
Raffle Drawing in the Exhibit Hall
Exhibit Halls CD

2:00 pm – 3:00 pm
Plenary Session
Dr. Katherine Kelley Distinguished Lecture
Current Challenges for Public Service Leaders

Ballroom A
(588-819-17, 1.0 contact hours for this session)

The Katherine Kelley Distinguished Lecture is the principal lecture of APHL’s annual meeting. We are honored to have Isaac Ashkenazi, an Israeli Professor of Disaster Medicine at Ben-Gurion University of the Negev in Israel and a consultant to Harvard University. He is considered one of the world’s foremost experts in medical preparedness for complex emergencies and disasters. He will share his thoughts on current challenges for public service leaders.

At the conclusion of this session, the participant will be able to:
• Define the concept of meta-leadership
• Describe two current challenges for leaders in public service

Moderator: A. Christian Whelen, PhD, Director, Hawaii State Laboratories Division

Isaac Ashkenazi, MD, MSc, MPS, MNS, International Expert for Crisis Management and Leadership and Faculty of Health Sciences, Ben Gurion University of the Negev, Israel
Tuesday, June 13

3:00 pm – 3:30 pm
Break
East Prefunction

3:30 pm – 4:30 pm
Concurrent Sessions

**Taking Root: Cannabis Public Health and Safety**

Ballroom A

(588-820-17, 1.0 contact hours for this session)

*Cannabis is no longer an insignificant public health challenge. As more and more states are legalizing some form of cannabis use, public health is being asked not only to assure testing but also to provide testing services. Since this industry is in its infancy, regulation and oversight is just beginning and there is concern not only about potency but also about contaminants. Attendees at this session will hear the lessons learned from audits of cannabis operations and results of characterization of contaminants in products.*

At the conclusion of this session, the participant will be able to:

- Describe the results from audits of medical cannabis operations and the types of corrective actions implemented
- Describe the types of contaminants and the potency levels found in various types of product in one state over the last two years

**Moderator: Jack Bennett**, Lawrence Livermore National Laboratory

**Assessing Regulatory Compliance at Medical Cannabis Operations for Patient Focused Certification**

Jahan Marcu, PhD, Americans for Safe Access/ Patient Focused Certification

**Characterization of Cannabinoids and Contaminants in Medical Marijuana Products in Massachusetts**

Marc A. Nascarella, PhD, Massachusetts Department of Public Health
Hot Topics (TBD)
Ballroom D
(588-821-17, 1.0 contact hours for this session)

Stories From the Field: Putting Sequencing Data to Work

(588-822-17, 1.0 contact hours for this session)

CDC’s Advanced Molecular Detection (AMD) initiative focuses on bringing technological innovation to Public Health Laboratories to enhance infectious disease detection and surveillance. As more laboratories adopt Next Generation Sequencing (NGS), it is important to understand how this technology can be fully utilized for multiple applications. This session will provide an overview of recent examples of how NGS was used to inform public health action.

At the conclusion of this session, the participant will be able to:

• List multiple uses of NGS technologies in PHLs from foodborne pathogens to newborn screening
• Describe how NGS can be used in outbreak investigations

Moderator: Mark Pandori, PhD, Alameda County (CA) Public Health Laboratory

2010 Outbreak of Vibrosis Linked to Chesapeake Bay Oysters with a Novel US Strain of Vibrio parahaemolyticus
Julie Haendiges, MPS, Maryland Department of Health and Mental Hygiene

Application of Next Generation Sequencing to a Raw Milk Associated Campylobacter Outbreak
Kelly Oakeson, PhD, Utah Public Health Laboratory

Use of NGS in Newborn Screening
Michele Caggana, ScD, FACMG, New York State Department of Health

Exploring the Hidden Dynamics of Pertussis Using Sequence Data
Colin Worby, PhD, Princeton University and William A. Hinton State Laboratory Institute (MA)
Curriculum Design for Public Health Laboratory Informatics

551AB

(588-823-17, 1.0 contact hours for this session)

Laboratory informatics has become a critical operational element and contributing factor of success to support our public health laboratory (PHL) operations, and the delivery of quality services to the public. As laboratory informatics continues to emerge as a discipline, it is important for PHLs to gain competencies around informatics. Together, APHL and CDC, with the help of Deloitte, have begun to define a set of competency-based modules that can be used to design and deploy specific informatics related courses for target roles in the laboratories.

At the conclusion of this session, the participant will be able to:

• Explain how their specific role in the lab interacts with data and how they personally affect the quality of the information produced by the laboratory
• Articulate the “life-cycle” of data—its introduction to the lab, its process flow throughout, and the dissemination of that information externally
• Determine which aspects of this training would be most beneficial for their laboratory’s employees and communicate to their labs the need for informatics competency

Moderator: Michelle Meigs, Association of Public Health Laboratories
Mark Conde, Emory University/Rollins School of Public Health
Deanne Watts, MA, Deloitte Consulting
John Ridderhof, DrPH, Centers for Disease Control and Prevention

4:30 pm – 5:00 pm
Break
East Prefunction

5:00 pm – 6:00 pm
Member Assembly
Ballroom A
WEDNESDAY, JUNE 14, 2017

7:30 am – 12:30 pm
Registration
East Prefunction

7:30 am – 8:30 am
Coffee
West Hallway

8:00 am – 8:45 am
Roundtables

The Impact of APHL Informatics Technical Assistance: Stories From the Field

APHL offers Informatics Technical Assistance and Services to guide and support public health laboratories, public health agencies and other partners to meet their needs for interoperable data exchange. In this session, technical assistance recipients and APHL Informatics subject matter experts will explain how to request TA, available menu of services and share reusable tools. Partners and state laboratory/agency staff members will describe their ‘stories from the field’ and share their own experiences with APHL Technical Assistance.

Moderator: Laura Carlton, MPH, Association of Public Health Laboratories
Keith Higginbotham, Alabama Bureau of Clinical Laboratories
Diane Fraiter, Katherine A. Kelley Public Health Laboratory (CT)
Christopher Anderson, California Department of Public Health

PHAB in Your Lab

This session is an opportunity to discuss the PHL’s role in a public health department’s Public Health Accreditation Board (PHAB) accreditation process. Tips and tools will be shared among the attendees focusing what to do and what to avoid while undergoing the accreditation process.

Moderator: Twila Kunde, MBA, MPH, New Mexico Department of Health
Jan Klawitter, MA, Wisconsin State Laboratory of Hygiene
Charlene Thomas, MT(ASCP), Alabama Bureau of Clinical Laboratories
**After Action Roundtable — Switching to HIV 4th Generation**  
555B

*Do you have a good sense of the impact of changing methods in your lab? Sometimes in local labs our test volumes don’t allow us to assess the impact quickly. The Local Laboratory Committee will present data submitted from member labs. Discussion will focus specifically on the impact of the new HIV algorithm testing.*

*Kerry Buchs, MHA, MT(ASCP), Philadelphia Public Health Laboratory*

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**Status Update on State Directed Regional Networks to Strengthen Services**  
556AB

*There are now three state-initiated and directed regional networks that have been established to share training, technical approaches and selected services between PHLs. This roundtable will share the experiences and lessons learned from the regional networks to inform states considering forming additional networks.*

*Michael Pentella, PhD, D(ABMM), University of Iowa College of Public Health*

Sarah Buss, PhD, Wyoming State Public Health Laboratory

Richard Steece, PhD, Tennessee Department of Health: Laboratory Services

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**8:00 am – 9:30 am**

**Coffee**

East Prefunction

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**9:00 am – 10:30 am**

**Concurrent Sessions**

**Bringing Biosafety Back**  
PHPR  
SHC  
SEC

Ballroom A

(588-824-17, 1.5 contact hours for this session)

*This session will address the progress that PHLs and APHL have made and the challenges that remain to strengthen biosafety and biosecurity practices. Attendees will learn best practices and acquire tools to develop strong connections between public health and clinical labs in their jurisdictions in regards to biosafety and biosecurity.*
At the conclusion of this session, the participant will be able to:

- Describe and list APHL and CDC activities to strengthen linkages between public health and clinical laboratories in biosafety
- Describe ongoing biosafety needs of clinical laboratories

Moderator: Anthony J. Troiano, PhD, Rhode Island Department of Health

**More Than Hammers and Nails: APHL Tools to Build Biosafety and Biosecurity**

Michael Pentella, PhD, D(ABMM), University of Iowa College of Public Health

**CDC Tools to Strengthen Biosafety and Biosecurity**

Steve Monroe, PhD, Centers for Disease Control and Prevention

**Biosafety at the Microbe Level: Needs of the Clinical Labs**

James Snyder, PhD, University of Louisville Hospital

**Challenges with the Validation of Alternative Serotyping Methods Used for Clinical Diagnostic Testing and Pathogen Characterization for Salmonella and Other Bacteria**

Patti Fields, PhD, Centers for Disease Control and Prevention

With the availability of several molecular methods for identification and serotyping of pathogens and the limitations posed by the timely production and quality assurance assessment of antisera in order to establish expiration dates, many labs are transitioning to the use of molecular and sequence based methods. This transitioning has created challenges for public health laboratories with respect to method validation and compliance with CLIA regulations which have not been updated to address the new methodologies. This session will review approaches which have been successfully applied to the validation of traditional and advanced molecular serotyping methods, as well as provide an overview of alternative identification methods for other bacteria.

At the conclusion of this session, the participant will be able to:

- List the methods currently employed for pathogen identification and serotyping
- Review approaches used for the validation of alternative serotyping methods
- Describe the challenges faced by laboratories performing alternative serotyping during CLIA inspections

Moderator: Tracy Stiles, MS, M(ASCP), William A. Hinton State Laboratory Institute (MA)

**Antisera QC and IQCP and Associated Challenges**

Patti Fields, PhD, Centers for Disease Control and Prevention
Operational Updates Following a Recent CLIA Inspection  
Sara Vetter, PhD, Minnesota Public Health Laboratory Division

Implementation and Impact of *Salmonella* Serotype Determination Using Pulsed-field Gel Electrophoresis in New York  
Kimberlee Musser, PhD, New York State Department of Health

*Salmonella* Serotyping Using NGS Results and SeqSero Web-based Tools  
Ayiln Perez Osorio, PhD, Washington State Public Health Laboratory

The Use of ANI as Bacterial Identification  
Maryann Turnsek, Centers for Disease Control and Prevention

**Strengthening Laboratory System Partnerships — Building Global Health Capacity Beyond Jurisdictions**  
552AB  
(588-826-17, 1.5 contact hours for this session)

As organizations worldwide make strides toward prioritizing global health partnerships, the public health agencies are also actively involved in this movement. This session will discuss the values of innovating, non-traditional partnering and role of PHLs to serve as forum for the planning, development and coordination of global health efforts and benefit of such scientific programs activities with their systems partners.

At the conclusion of this session, the participant will be able to:

- Explain multi-disciplinary partnerships as emerging disciplines of global health strategic planning, research and advisory activities on ‘One-Health’
- Identify the benefits of innovative partnering in addressing global health challenges including laboratory capacity building and environmental sustainability
- Describe PHLs engagement in global health conversations around diseases detection, laboratory-based surveillance, policy and workforce development

**Moderator:** Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department

Christopher Plowe, PhD, University of Maryland School of Medicine

Trevor Mundel, PhD, Bill & Melinda Gates Foundation (Invited)
New Contaminants Are Always Emerging

551AB

(588-827-17, 1.5 contact hours for this session)

As detection capabilities improve, public health and environmental laboratories are being called upon to measure an increased number of drinking water contaminants, both new and of “new concern.” Join this session to learn about public health laboratory and federal agency experiences with per- and polyfluoroalkyl substances (PFASs) and other contaminants, and how those experiences may inform future approaches for that next emerging contaminant.

At the conclusion of this session, the participant will be able to:

• Describe two different state laboratory approaches to assessing community exposure to PFASs through drinking water and biomonitoring methods
• Discuss practical applications of biomonitoring for emerging contaminants

Moderators: Paul Moyer, MS, Minnesota Public Health Laboratory
            Jack Bennett, Lawrence Livermore National Laboratory

High-Throughput Methods for Testing Serum and Drinking Water
Kenneth Aldous, PhD, New York State Department of Health

Community Exposure to PFASs, an Emerging Public Health Issue
Chang Ho Yu, PhD, New Jersey Public Health Laboratory

Practical Applications of Biomonitoring to Assess Exposure in Communities
TBD

10:30 am – 11:00 am

Break
East Prefunction
11:00 am – 12:30 pm

Plenary Session

Unlocking the Secrets of Zika

Ballroom A

(588-831-17, 1.5 contact hours for this session)

Zika has shown the world that it is not just another virus. Although a flavivirus, Zika does not follow in the footsteps of the other members of its family. Recent research has taught us many of the unique characteristics of Zika and how it became the virus we know today. This session presents recent scientific research on Zika virus that is highly relevant to public health laboratories. The data presented will allow public health laboratories to better interpret their testing results.

At the conclusion of this session, the participant will be able to:

• Discuss scientific research related to Zika testing and novel diagnostic approaches
• Explain the immune response to Zika infection

Moderator: Sara Vetter, PhD, D(ABMM), Minnesota Public Health Laboratory Division

Zika Virus Serology: Increasing Accuracy Through Use of IgG and Nonstructural Proteins

Susan Wong, PhD, New York State Department of Health

Jorge Munoz, PhD, Centers for Diseases Control and Prevention

Zika Neutralization Assay and Vaccine Development

Pei-Yong Shi, PhD, University of Texas Medical Branch

12:30 pm

Meeting adjourns

1:00 pm – 3:00 pm

Optional tour of the Rhode Island State Public Health Laboratory

(Sign up when you register for the conference)

Please keep in mind that this schedule is a work in progress and is subject to change.