

2018 APHL[®] ANNUAL MEETING

and twelfth government environmental laboratory conference

June 2–5, 2018

Pasadena Convention Center

Pasadena, CA

PRELIMINARY PROGRAM



www.aphl.org/AM



The APHL Annual Meeting is a 4-day conference of more than 600 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 the work of public health laboratories. Total anticipated attendance is more than 600.



Why Attend?

- 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
- Clinical and academic laboratory managers and staff
- Others interested in laboratory issues

Meeting Location

The 2018 APHL Annual Meeting will be held in downtown Pasadena, CA at the Pasadena Convention Center (300 E. Green St., Pasadena, CA 91101). All general and breakout sessions will take place in the main building along with the exhibit hall, housing the exhibitors, posters, awards breakfast and food and beverage events. Roundtables and Innovate! sessions will be in the conference center across the plaza. The Sheraton Pasadena Hotel (headquarters hotel) is steps away while the Hilton Pasadena Hotel is a two-block walk. Both are located in the heart of downtown within easy walking distance of numerous restaurants, attractions and shopping. To help plan your stay in Pasadena, see [Visit Pasadena](#).

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.

C	Communications	LL	Local Public Health Laboratory
EH	Environmental Health	NBS	Newborn Screening & Genetics
ELS	Environmental Laboratory Science	PHPR	Public Health Preparedness & Response
FS	Food Safety	PO	Policy
GH	Global Health	QS	Quality Systems
I	Informatics	W	Workforce Development
ID	Infectious Disease		
KM	Knowledge Management		

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 the 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.

QMS	Quality Management Systems	GEN	General Laboratory Practices
ETH	Ethics	SHC	Safety Subdomain
MLD	Management and Leadership	SRV	Surveillance
COM	Communication	INF	Informatics
SEC	Security	MCB	Microbiology
EMR	Emergency Management and Response	CHM	Chemistry
WFT	Workforce Training	BIO	Bioinformatics
		RES	Research

Registration

Conference Registration Fee: \$525/member, \$650/Non-Member, \$150/Student

Pre-Conference Registration Fee: \$95

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 to register. If you have any questions or problems, please contact Terry Reamer at 240.485.2776 or terry.reamer@aphl.org.

Hotel Accommodations

APHL has contracted with two hotels for sleeping rooms this year at the Annual Meeting — the Sheraton Pasadena Hotel (headquarters hotel) and the Hilton Pasadena Hotel. The Sheraton is just steps from the convention center while the Hilton is two blocks away. Both are within easy walking distance of restaurants and shops.

APHL has negotiated a [discounted room rate](#) of \$175.00 plus tax per night with both hotels. There are a very limited number of federal per diem rooms at each hotel. Reservations are available on a first-come, first-served basis and are valid until April 30, 2018 or until the block is filled. This block may fill up quickly so be sure to make your reservation early.

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.

Visit These Exhibitors! (as of February 1, 2018)

A2LA	GenMark Diagnostics	Orchard Software Corp.
Advanced Instruments, Inc.	Hardy Diagnostics	PerkinElmer
Agilent Technologies, Inc.	HDR	Promium
ANSI-ASQ National Accreditation Board	Hologic, Inc.	Puritan Medical Products
Bio-Rad Laboratories	IDEXX	Qualtrax, Inc.
Bruker	Illumina, Inc.	Roche Diagnostics
Centers for Disease Control & Prevention	INTEGRA Biosciences Corporation	STACS DNA
Chembio Diagnostic Systems	LexaGene	Streck
ChemWare, LLC	Luminex Corporation	T2 Biosystems
Coppe Laboratories, Inc.	MAXAIR Systems	UberOps
Fujirebio US, Inc.	MediaLab, Inc.	US EPA, Office of Research & Development
Genial Compliance/Rainbow Scientific, Inc.	Mercedes Medical	Waters Corporation
	MRIGlobal	

Visit 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.

Tour the Pasadena Environmental Chemistry Laboratory!

Monday, June 4, 6:00 pm – 8:00 pm

Only 1.3 miles away from the convention center, come learn about California's Department of Toxic Substances Control laboratory that tests soils, sludges, used oils, consumer products, ground water and other environmental solids. The tour will include an overview of the sample receiving process, grinding/sample pre-preparation lab, inorganic labs, organic labs and vapors & gases lab. We'll meet as a group to walk/metro over to the laboratory at 6:00 pm and the tour will last about an hour. After the tour, get together with others interested in environmental health at the Congregation Ale House! Please sign up when you register.

Tour the Los Angeles County Public Health Laboratory

Tuesday, June 5, 1:00 pm – 5:00 pm

The LA County Public Health Laboratory supports epidemiologic investigations and programs to prevent and control infectious disease and pollution of air, water and food. The PHL provides laboratory services for county public health and personal health centers, 6 county hospitals, county environmental management and veterinary units, and private providers. The tour will last 60–90 minutes. Be advised that, depending on traffic, this lab is about 45–60 minutes from Pasadena. The bus will return attendees to Pasadena no later than 5:00 pm. Please sign up when you register.

Thank You to These Sponsors for Their Support!

Awards Breakfast



Welcome Reception
Mobile App and Wi-Fi



Totebags



Notebooks



Sponsorship and exhibiting opportunities are available. For more information, contact Lori Richardson-Parr (lori.richardson-parr@aphl.org or 240.485.2723).

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 Pasadena 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

Saturday, June 2, 8:00 am – 11:30 am

Register separately for these workshops

Welcome Reception

Saturday, June 2, 5:30 pm – 7:00 pm

Sponsored by Roche Diagnostics

Innovate!

Sunday, June 3, 8:00 am – 8:45 am

Connect with your industry partners and learn of new technologies and services.

Networking Reception

Sunday, June 3, 5:00 pm – 6:00 pm

Awards Ceremony and Breakfast

Monday, June 4, 9:00 am – 10:30 am

Celebrate your colleagues' achievements.

Sponsored by Hologic

Dr. Katherine Kelley Distinguished Lecture

Monday, June 4, 2:00 pm – 3:00 pm

Activism and Stalemate: How the Threat of Antibiotic Resistance Turned the US Public Against Farm Antibiotic Use Maryn McKenna, journalist and author of *Big Chicken*, *Super Bug* and *Beating Back the Devil*

Exhibit Hall Raffle

Monday, June 4, 1:30 pm – 2:00 pm

Visit all the exhibitors between Saturday and Monday for your chance to win a prize such as an airline ticket, gift cards or cash.

Member Assembly

Monday, June 4, 5:00 – 6:00 pm

Optional Tour of the Pasadena Environmental Chemistry Laboratory
Monday, June 4, 6:00 pm – 8:00 pm

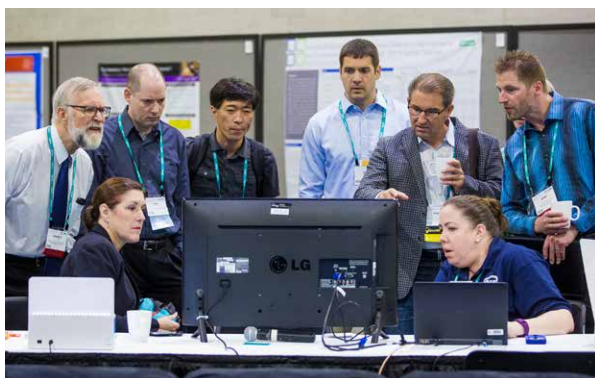
Optional Tour of the Los Angeles County Public Health Laboratory
Tuesday, June 5, 1:00 pm – 5:00 pm

APHL Experience

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

Previous demonstrations include:

- National Biomonitoring Network
- Public Health Laboratory System Database (PHLSD)
- Laboratory System Improvement Program (L-SIP)
- PHL Competencies Implementation Tools
- Return on Investment Tool
- Council to Improve Foodborne Outbreak Response (CIFOR) Guidelines and Tools
- Tools for Leadership Recruitment, Succession Planning and Strategic Planning
- APHL Biosafety and Biosecurity Tools
- EPA Emergency Response Resources



Agenda of Events

Friday, June 1, 2018

4:00 pm – 7:00 pm

Registration

Ballroom Foyer

Saturday, June 2, 2018

7:00 am – 6:00 pm

Registration

Ballroom Foyer

8:00 am – 11:30 am

PRE-CONFERENCE WORKSHOPS

(separate registration required)

Giving Your Data Its Due: Visualizing Data in Excel

Ballroom A

Moderator: TBD

- **Data Without Snore: Planning a Data-centric Presentation**
TBD
- **Visible Data: Effective Graphical Representation of Data**
TBD
- **Hands-on Practice: Visualizing Data in Excel**
Jacob Rosalez, Manager, Institutional Research, Association of Public Health Laboratories

Your conference presentation is approaching, and you have impressive data to share with your colleagues. But how do you translate the data into visuals that convey your key points when time and resources are limited? This hands-on workshop will show you how to plan a data-centric presentation and create effective data visualizations in Excel. Bring your laptop, dummy data provided.

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

- Plan and focus a presentation to convey key data points
- Name five characteristics of effective graphical representation of data
- Analyze the quality and clarity of graphs and other representations of data
- Create an effective graph or other data visualization in Excel.

(588-829-18 – 3.0 contact hours for this session)

Fostering Partnerships to Maximize the Potential of Biomonitoring

EH EMR SRV

Ballroom B

- Speakers: TBD

This workshop will describe how partnerships can be initiated and cultivated to grow successful biomonitoring projects and programs.

(588-830-18 – 3.0 contact hours for this session)

Quality Considerations for NGS ID MCB

Ballroom C

Moderators: Kelly Wroblewski, MPH, MT(ASCP), Director, Infectious Disease Programs and Christin L. Hanigan, PhD, Senior Specialist, Infectious Disease Program, Association of Public Health Laboratories

- Speakers: TBD

Attendees will participate in a combination of lectures and exercises that will describe approaches for validating Next Generation Sequencing (NGS) assays and the considerations for implementing quality assurance (QA) measures appropriate for NGS protocols from wet laboratory through data analysis.

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

- Develop approaches for validation of NGS assays
- Describe the QA indicators that should be established
- Interpret various types of data output and how to verify proper analysis parameters
- Discuss a bioinformatician's approach to designing a novel pipeline

(588-831-18 – 3.0 contact hours for this session)

PulseNet Surveillance for *Listeria*: Introduction to Interpretation and Reporting of Whole Genome Sequencing (WGS) Data

FS SRV INF MCB

Ballroom H

Moderators: Kristy Kubota, MPH, Manager, PulseNet and Jennifer Adams, Lead Specialist, PulseNet QA, Association of Public Health Laboratories

- Kelley Hise, MPH, PulseNet Database Unit Chief, Centers for Disease Control and Prevention
- Heather Carleton, PhD, MPH, Bioinformatics Coordinator, Centers for Disease Control and Prevention

PulseNet, the National Molecular Subtyping Surveillance Network for Foodborne Disease Surveillance, utilizes DNA fingerprinting to detect clusters of foodborne disease pathogens and is currently undergoing a transformation from pulsed-field gel electrophoresis (PFGE) to WGS methods. This session is designed to provide members with information regarding how surveillance is conducted for *Listeria* now that WGS has replaced PFGE as the primary

subtyping method. The emphasis of this session will be to demonstrate data management for PulseNet focusing on WGS data analysis, interpretation, cluster detection and reporting to epidemiologists for national Listeriosis surveillance within the United States.

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

- Describe the integration of WGS data for PulseNet *Listeria* surveillance
- Discuss methods to evaluate sequence quality after data is generated from the Illumina MiSeq instruments
- Describe WGS data analysis and reporting tools for PulseNet surveillance
- Describe how WGS data for *Listeria monocytogenes* can be managed locally and submitted to CDC for national surveillance

(588-832-18 – 3.0 contact hours for this session)

11:30 am – 1:30 pm

Lunch on your own

1:30 pm – 3:30 pm

OPENING PLENARY SESSION

Ballroom DE

1:30 pm – 2:00 pm

Welcome to Pasadena

Ballroom DE

Moderators: Ewa King, PhD, APHL President & Director, Rhode Island State Health Laboratories, and Joanne Bartkus, PhD, D(ABMM), APHL President-Elect, 2018 Annual Meeting Planning Committee Chair and Director, Minnesota Public Health Laboratory Division

- Paul Kimsey, PhD, Director, California Department of Public Health Laboratory
- Nicole Green, PhD, D(ABMM), Director, Los Angeles County Public Health Laboratory
- Scott Becker, MS, Executive Director, Association of Public Health Laboratories

2:00 pm – 3:30 pm

One Hundred Years Pursuing the Pandemic: From the ‘Great Flu’ of 1918 to 2018

Ballroom DE

Moderator: Peter Shult, PhD, Wisconsin State Laboratory of Hygiene

- **The Past, Present and Future of Influenza Pandemics**
TBD

- **Assessing Pandemic Risk and Evaluating US and Global Pandemic Readiness**
Jacqueline Katz, PhD Centers for Disease Control and Prevention
- **The Future of Pandemic Prevention and Mitigation**
Stacey Shultz-Cherry, PhD, St. Jude Children's Hospital

Marking the 1918 influenza pandemic centennial, this session will look at the past, present and future of influenza pandemics. We will review the early science of virology during the 1918 pandemic, and evaluate the advances since that time that position us to contend with similar potential pandemic public health threats. This session will highlight the progress that has been made nationally and internationally with the development of new pandemic preparedness tools and resources. We will also look at the future of pandemic prevention through advances in vaccines and pharmaceuticals.

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

- Review influenza history and potential future concerns
- List current efforts to thwart influenza transmission through improved human and animal surveillance, clinical practice and public health interventions
- Describe pandemic planning resources and tools now available to the public health community

(588-800-18 – 1.5 contact hours for this session)

3:30 pm – 4:00 pm

Break in the Exhibit Hall

Exhibit Halls AB

3:30 pm – 7:00 pm

Exhibit Hall Open

Exhibit Halls AB

3:30 pm – 7:00 pm

Posters available for viewing in the exhibit hall

Exhibit Halls AB

4:00 pm – 5:30 pm

CONCURRENT SESSIONS

Addressing Antibiotic Resistance “Hotspots” Through a Global One Health Lens: People, Animals and the Environment

GH ELS MCB EMR SRV

Ballroom DE

Moderators: Romesh Gautam, PhD, MS, Washington State Public Health Laboratories and Michael Pentella, PhD, MS, D(ABMM), State Hygienic Laboratory at the University of Iowa

- **Changing Practices to Reduce Antibiotic Resistance**
Jean McLain, PhD, MS, University of Arizona
- **Antibiotic Resistance in Groundwater and Irrigated Soils**
TBD
- **How Culture and Circumstances Complicate the Fight Against Antimicrobial Resistance: Lessons from Tanzania**
Douglas Call, PhD, Washington State University

Antibiotic resistance is a multi-faceted global problem that includes clinical, socio-economic, environmental and one-health issues. This session will focus on surveillance for resistance and opportunities for mitigation.

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

- Describe the impact on antimicrobial resistance from a local, global and one health perspective
- Explain the role of social and environmental factors contributing to emergence of “hotspots” of antibiotic resistance
- Identify knowledge gained of high throughput assays for detection of resistance at the community level

(588-802-18 – 1.5 contact hours for this session)

Spotlight on Public Health Laboratory Fellowships: What Can a Fellow Do for Your Lab? W MLD WFT

Ballroom A

Moderators: Jennifer Rakeman, PhD, New York City Public Health Laboratory and Marie-Claire Rowlinson, PhD, D(ABMM), Florida Bureau of Public Health Laboratories

- **Speakers:** TBD

This session will highlight some of the important achievements of fellows in state and local public health laboratories. Fellows from CDC and APHL fellowship programs such as the Laboratory Leadership Service (LLS), Antimicrobial Resistance, and Bioinformatics fellowships will present their project work and discuss how their work has benefited the laboratory as well as how the fellowship enhances their careers in public health laboratory science. Fellowship mentors will also be available to discuss the benefits of these programs. Come and support our public health science leaders of the future!

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

- Describe the fellowships available to train new public health laboratory scientists
- Demonstrate the value of fellows to public health laboratories
- Demonstrate the value of fellowship programs to the public health laboratory system

(588-801-18 – 1.5 contact hours for this session)

Newborn Screening: It's Complicated! NBS MLD COM

Ballroom B

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

- Michelle Caggana, PhD, Wadsworth Center, New York State Department of Health
- Susan Tanksley, PhD, Texas Department of State Health Services
- John Thompson, PhD, Washington State Office of Newborn Screening
- Rachel Lee, PhD, Texas Department of State Health Services

Recent media stories have called attention to the establishment of newborn screening (NBS) analyte cutoffs, timeliness of returning NBS results, and delays in implementing screening for newly added disorders. This session will demonstrate that NBS extends beyond a simple laboratory test and involves a system of partners to be successful; highlight the difference between screening and diagnostic testing; and show how the recent addition of new disorders to the Recommended Uniform Screening Panel (RUSP) requires implementation readiness by all parts of the program.

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

- Identify facilitators and barriers for NBS programs in implementing universal screening for new conditions
- Describe the challenges that NBS programs face in meeting implementation timelines while also assuring quality practices and timely return of results all with newborn lives and health outcomes at stake
- Explain that NBS is a system beyond the laboratory and explain how challenges in any part of the process affect the overall NBS system

(588-803-18 – 1.5 contact hours for this session)

Per- and Poly-Fluoroalkyl Substances (PFAS): Nevertheless, They Persist EH CHM

Ballroom C

Moderator: Kacee Deener, MPH, US Environmental Protection Agency

- Cindy Caporale, US Environmental Protection Agency
- Ekta Choudhary, PhD, MPH, MS, Centers for Disease Control and Prevention
- Jesse Sagona, PhD, New Hampshire Environmental Public Health Tracking

It has been said that per- and poly-fluoroalkyl substances (PFAS) will be the environmental health challenge of the next decade. As science rushes to keep up with this evolving issue, what are the current tools, resources and analytical methods that public health laboratories can use to produce quality decision-making data?

- Describe new non-drinking water analytical methods for PFAS
- Explain how the ATSDR PFAS exposure assessment technical tools (PEAT) can be used to assess exposure to PFAS in community settings, including sampling methodology and other study design decisions
- Describe how a state environmental health tracking program has used data to make PFAS public health decisions

5:30 pm – 7:00 pm

Welcome Reception in the Exhibit Hall

Exhibit Halls AB

Sponsored by Roche Diagnostics

6:00 pm – 6:30 pm

Poster authors 1–70 standing by their posters

Exhibit Halls AB



Sunday, June 3, 2018

7:30 am – 5:30 pm

Registration

Ballroom DE Foyer

7:30 am – 9:00 am

Coffee

Ballroom DE Foyer

8:00 am – 8:45 am

INNOVATE! – (TBD)

9:00 am – 10:00 am

CONCURRENT SESSIONS

The Impact of New and Emerging Technologies on Food and Clinical Testing Laboratories FS MCB CHM BIO INF

Ballroom DE

Moderator: Denise Toney, PhD, HCLD(ABB), Virginia Division of Consolidated Laboratory Services

- Caitlin Murphy, PhD, University of Nebraska Medical Center
- Lauren Turner, PhD, Virginia Division of Consolidated Laboratory Services

This session will review the more recent technologies now available to clinical and food testing laboratories for detection of gastrointestinal and other pathogens, including: Matrix assisted laser MALDI-TOF, 16S and whole genome sequencing, and multiplex culture independent tests for gastrointestinal pathogens. We'll discuss strategies used by laboratories to overcome the more common challenges associated with implementation.

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

- Identify new and approved technologies available to clinical and food testing laboratories
- Apply new approaches to method validation and implementation
- Describe various approaches to data interpretation and result reporting

(588-805-18 – 1.0 contact hours for this session)

Strangers Among Us: Exploring the Lesser Known Arboviruses

ID MCB

Ballroom A

Moderator: Sara Vetter, PhD, Minnesota Department of Health

- Lea Heberlein-Larson, MPH, SM(ASCP), Florida Bureau of Public Health Laboratories – Tampa
- Elizabeth Shiffman, MPH, MA, Minnesota Department of Health
- TBD, Centers for Disease Control and Prevention

Much is known about Zika virus, West Nile virus, Dengue and other arboviruses that have been able to cause widespread disease over large geographic areas. However, there are many other regional and lower incidence arboviruses of importance that still pose challenges to public health every day.

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

- Describe the origin and the reservoir of Eastern Equine Encephalitis
- Discuss recent understanding about Powassan Virus
- Describe multiple lesser known arboviruses and understand their potential to cause and outbreak

(588-806-18 – 1.0 contact hours for this session)

Poster Speed Dating Session

Ballroom B

This session will include short presentations of select posters. The full posters may be seen in the exhibit hall.

(588-808-18 – 1.0 contact hours for this session)

Out of the Weeds: The Big Picture of Cannabis Testing EH GEN MCB

Ballroom C

Moderator: Kenneth Aldous, PhD, Wadsworth Center, New York State Department of Health

- Gillian Schauer, PhD, CDC Foundation
- TBD - California Bureau of Cannabis Control, Department of Consumer Affairs
- Heather Krug, MS, Colorado Department of Public Health & Environment (Invited)

This session will outline the current status of cannabis testing in states that have been doing it the longest. A speaker from the CDC Foundation will provide the lay of the land on policy issues and why cannabis is a concern for public health.

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

- Describe the public health implications of marijuana use and legalization in the states
- List cannabis testing issues in Colorado and California, and potential solutions
- Demonstrate understanding of the breadth of complicated factors surrounding cannabis testing

(588-807-18 – 1.0 contact hours for this session)

10:00 am – 6:00 pm

Exhibit Hall Open

Exhibit Halls AB

10:00 am – 6:00 pm

Posters available for viewing in the exhibit hall

Exhibit Halls AB

10:00 am – 10:30 am

Break in the Exhibit Hall

Exhibit Halls AB

10:30 am – 12:00 pm

PLENARY SESSION

Biomonitoring, the Blooming Onion: Growth at the Federal, State and Organizational Levels

Ballroom DE

Moderator: Julianne Nassif, MS, Association of Public Health Laboratories

- Mary Mortensen, MD, MS, Centers for Disease Control and Prevention
- Kenneth Aldous, PhD, National Biomonitoring Network Steering Committee
- Amanda Cosser, MPH, New Hampshire Public Health Laboratories
- Sanwat Chaudhuri, PhD, Utah Public Health Laboratory

This session will present biomonitoring updates from CDC and describe how to become a member of APHL's newest collaborative powerhouse, the National Biomonitoring Network. This session will also discuss lessons learned from states with established biomonitoring programs, including lab method validation and key aspects of study design.

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

- Describe biomonitoring efforts at the national level, breaking CDC NHANES research, and the structure of the National Biomonitoring Network
- Identify the attributes of a successful state biomonitoring program

(588-809-18 – 1.5 contact hours for this session)

12:00 pm – 1:30 pm

Lunch in the Exhibit Hall (provided)

Exhibit Halls AB

Visit with the exhibitors and view the posters

12:30 pm – 1:00 pm

Poster authors 71–140 standing by their posters

Exhibit Halls AB

1:30 pm – 3:00 pm

CONCURRENT SESSIONS

On the Front Lines of Antibiotic Resistance

Ballroom DE

Moderator: Kimberlee Musser, PhD, Wadsworth Center, New York State Department of Health

- **Concerning Trends in Antibiotic Resistance**
Jean B. Patel, PhD, D(ABMM), Centers for Disease Control and Prevention
- **Outbreak of VIM-Producing *P. aeruginosa* in a Long-Term Acute-Care Hospital**
Richard Steece, PhD, D(ABMM), Tennessee Department of Health
Marie-Claire Rowlinson, PhD, D(ABMM), Florida Bureau of Public Health Laboratories
Nychie Q. Dotson, MPH, CIC, CPHQ, Florida Bureau of Epidemiology
- **ARLN Testing in an Investigation of CP-CRE in a Pennsylvania Nursing Home**
Dongxiang Xia, MD, PhD, D(ABMM), SV(ASCP), Pennsylvania Department of Health

The purpose of this session is to update participants on emerging antibiotic resistance from the perspective of the Antibiotic Resistance Laboratory Network. Through the ELC grant, most public health laboratories are now involved in antibiotic resistance testing or colonization screening and this session serves to highlight these activities following the initiation of this program in 2016.

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

- Describe the emerging antibiotic-resistant threats
- List important trends in antibiotic resistance
- Explain how the Antibiotic Resistance Laboratory Network is developing capacities to respond to new trends
- Describe challenges and progress with laboratory testing for antibiotic resistant threats
- Review the experiences of outbreaks involving antibiotic-resistant organisms from the laboratory and epidemiology perspective
- Discuss the value of the ARLN in responding to emerging antibiotic resistance

(588-812-18 – 1.5 contact hours for this session)

It Takes a Village: Genomic Epidemiology of the Zika Epidemic

ID MCB BIO INF

Ballroom A

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

- **Developing the Partnerships, Exploring the Data and Sharing the Results**
Leah D. Gillis, PhD, MS, HCLD(ABB), Florida Bureau of Public Health Laboratories — Miami
- **Genomic Epidemiology Reveals Multiple Introductions and Sustained Transmission of Zika Virus in Florida**
Jason Ladner, PhD, Northern Arizona University
- **The Many Hats of the Public Health Lab — A Zika Story**
Jennifer Rakeman, PhD, New York City Public Health Laboratory
- **TBD**
Genhong Cheng, PhD, University of California, Los Angeles

Speakers in this session will present the perspectives of governmental public health and academic researchers who provided data and expertise to reveal the complex genomic epidemiology of the Zika virus in Florida and NY. Presenters will provide background on the epidemiology, public health laboratory testing and complex data analysis partnerships that led to the finding of multiple introductions of Zika into the United States. Speakers will address how the collaboration was initiated and developed, the final results of the data analysis and the significance to public health.

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

- Describe the value of public health laboratories establishing and participating in collaborations involving the analysis of large, complex data sets
- Explain the type of data shared, the research and data analyses that were conducted, and insights generated about the biology, epidemiology and transmission of Zika virus
- Describe the data use agreements that need to be in place for data sharing and what are the potential barriers and benefits to be considered when setting up a collaboration

(588-810-18 – 1.5 contact hours for this session)

Laboratory Response to the Opioid Overdose Crisis EH CHM SRV

Ballroom B

Moderator: Ewa King, PhD, Rhode Island Department of Health

- **CDC Response to the Opioid Overdose Epidemic in the United States: More Timely, Localized and Actionable Data**
Grant Baldwin, PhD, MPH, Centers for Disease Control and Prevention
- **LRN-C Capacity to Support Local Opioid Emergencies**
Amy Watson, PhD, Centers for Disease Control and Prevention
- **The Minnesota Drug Overdose and Substance Abuse Pilot Surveillance System (MNDOSA): A Response to the Opioid Crisis**
Paul Moyer, MS, Minnesota Department of Health

This session will describe the CDC NCICP surveillance strategy for opioid overdoses, including the use of laboratory data. CDC NCEH efforts to help the states build the laboratory capabilities directed towards opioid detection in clinical samples will also be described, followed by an example of the implementation of opioid testing at a state public health laboratory (MN).

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

- Describe the scope of the opioid overdose problem in the United States
- Discuss the surveillance strategy system in place at the CDC for opioid use overdoses
- Recognize that LRN-C laboratories can implement opioid testing methods and the role of public health laboratories in the detection of opioids and novel fentanyl analogs

(588-811-18 – 1.5 contact hours for this session)

Successes and Challenges of Implementing Molecular Techniques in Environmental Microbial Surveillance EH MCB

Ballroom C

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

- Kaedra Jones, MPH, ICF
- Sharon Napier, PhD, MSPH, US Environmental Protection Agency
- Yiping Cao, PhD, Source Molecular Corporation
- TBD, Michigan Department of Environmental Quality

This session will examine barriers and solutions for the currently limited application of molecular detection techniques in environmental microbial surveillance.

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

- Describe current successes and the future potential of using molecular tools in surveilling microbes in environmental and public health laboratories
- Discuss resource limitations that have prohibited molecular technique implementation in environmental matrices and strategic efforts to overcome these limitations
- Explain regulatory positions and discuss the use of molecular detection data in public health decision making

(588-813-18 – 1.5 contact hours for this session)

3:00 pm – 3:30 pm

Break in the Exhibit Hall

Exhibit Halls AB

3:30 pm – 5:00 pm

CONCURRENT SESSIONS

Weird Science: Interesting and Unusual Cases in Public Health Laboratories ID MCB CHM

Ballroom DE

Moderator: James Beebe, PhD, D(ABMM), San Luis Obispo Public Health Laboratory

- Sara Vetter, PhD, D(ABMM), Minnesota Department of Health

Often serving as the labs of last resort, public health laboratories see more than their fair share of unusual pathogens or odd results, diagnostic puzzles they are tasked with solving. Our speakers will take us on a journey through a series of short presentations describing some of the year's most challenging cases and outbreaks and see if they can stump some lab directors.

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

- Describe three unique public health cases from the past year
- Discuss the approach that public health laboratorians take when participating in a public health investigation

(588-814-18 – 1.5 contact hours for this session)

Adventures in ETOR I NBS INF

Ballroom A

Moderator: Christine Urban, MBA, UberOps

- **New York City's Journey Away from Paper Requisitions and Towards an Electronic Test Ordering System**
Altaf Shaikh and Morgan Moy, MPH, New York City Department of Health and Mental Hygiene
- **10 Years of ETOR – The Florida Experience**
Susanne Crowe, MHA, Florida Bureau of Public Health Laboratories
- **Implementing ETOR for Newborn Screening in Georgia**
Arthur Hagar, PhD, HCLD, Georgia Dept of Public Health Laboratory
- **APHL's Efforts in Electronic Test Order and Result**
Michelle Meigs, Association of Public Health Laboratories

Electronic Test Order and Result (ETOR) implementation for differing uses comes with challenges and benefits. In this session, the attendees will hear from state and local laboratories, as well as APHL, regarding ETOR implementation. Florida has been utilizing ETOR for over ten years, and recently implemented ETOR for Newborn Screening (NBS). New York City has implemented an electronic test ordering and result reporting system in response to test order issues during outbreaks, such as Zika, that required time-consuming back and forth communication with submitters to resolve. Georgia will discuss the status of its NBS ETOR project. Lastly, APHL will discuss working with the Office of the National Coordinator for Health IT (ONC) and APHL's Informatics Committee on electronic test order and result (ETOR) and how a centralized web portal could support epidemiologists in an outbreak as interoperability between submitters and laboratories continues to play a crucial role in public health.

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

- Describe how implementation of electronic orders and results improves efficiency and accuracy
- Explain how ETOR decreases the turnaround time for test results, accuracy with which results are conveyed and ultimately leads to better healthcare outcomes
- List cost savings as well common pitfalls when implementing a new IT project

(588-815-18 – 1.5 contact hours for this session)

Grow the Talent You Have into the Leaders You Need: Internal Professional Development Programs in PHLs

W

KM

MLD

WFT

Ballroom B

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

- Sara Woldehanna, MA, MS, Association of Public Health Laboratories
- Grace Kubin, PhD, Texas Department of State Health Services
- Anna Strain, PhD, Minnesota Department of Health
- Michael Stevenson, PhD, Idaho Bureau of Laboratories

APHL's latest workforce survey reveals that professional development programs and perceived career advancement opportunities are a key factor in employee retention and job satisfaction in PHLs, yet few PHLs have such programs in place. This highly-interactive session will inform participants of the latest workforce survey data and showcase three internal professional development programs from three different state PHLs. Participants will discuss lessons learned from these programs and walk away with the beginning steps to developing a program of their own.

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

- Discuss current challenges of retaining a competent workforce
- Describe three strategies PHLs can use internally to increase retention and engagement among staff
- Communicate the benefits of internal professional development programs to laboratory leadership and other stakeholders

(588-816-18 – 1.5 contact hours for this session)

Radiological Response and Readiness: A Federal Perspective

EH

EMR

CHM

Ballroom C

Moderator: Jack Bennett, Lawrence Livermore National Laboratory

- Bob Read, Tennessee Department of Health
- Robert Jones, PhD, Centers for Disease Control and Prevention
- Sarah Taft, PhD, US Environmental Protection Agency
- Jennifer Buzzell, MS, Centers for Disease Control and Prevention
- Phil Torretto, Lawrence Livermore National Laboratory

The session will provide attendees with a greater understanding of the steps being taken at the federal level and the tools available to respond to a variety of radiological emergencies.

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

- Describe the challenges associated with effectively responding to a radiological emergency
- List some of the federal agencies involved in responding to radiological events, e.g., natural disaster, accident or terrorism
- List and describe currently available resources that can help laboratories prepare for a radiological event

(588-817-18 – 1.5 contact hours for this session)

5:00 pm – 6:00 pm

Networking Reception in the Exhibit Hall

Exhibit Halls AB



Monday, June 4, 2018

7:30 am – 5:30 pm

Registration

Ballroom DE Foyer

7:30 am – 9:00 am

Coffee

Ballroom DE Foyer

8:00 am – 8:45 am

ROUNDTABLES

Challenges of Maintaining Post-L-SIP Assessment Quality Improvement Activities

Room 207

Moderator: Twila Kunde, MPH, MBA, New Mexico Department of Health

- Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department
- Tim Southern, PhD, South Dakota Public Health Laboratory

Previous Laboratory System Improvement Program (L-SIP) participants will share their experiences maintaining post-L-SIP assessment quality improvement activities. The roundtable session will give attendees ideas for developing strategies to prioritize and implement L-SIP recommendations and facilitate a discussion maintaining stakeholder ownership and engagement for continual system improvement.

WGS Bioinformatics Solutions for State Public Health Labs

Rooms 212/214

Moderator: Joel Sevinsky, PhD, Colorado Department of Public Health and Environment

- Kelly Oakeson, PhD, Utah Public Health Laboratory
- Duncan MacCannell, PhD, Centers for Disease Control and Prevention
- Xiong Wang, PhD, Minnesota Department of Health

The number of bioinformatics solutions for WGS analysis is as varied as the IT and purchasing restrictions placed on individual state PHLs. Numerous strategies will be discussed including on-site Linux servers, cloud computing solutions, and outsourcing. This session will feature success stories from several PHLs that have incorporated WGS bioinformatics into their routine operations and will provide guidance and assistance to those PHLs trying to implement their own WGS bioinformatics program.

How Does IGRA Testing Fit into the Public Health Laboratory?

Room 208

Moderators: Marie-Claire Rowlinson, PhD, D(ABMM), Florida Bureau of Public Health Laboratories and Angela Starks, PhD, Centers for Disease Control and Prevention

- Nicole M Green, PhD, D(ABMM), Los Angeles County Public Health Laboratories
- Daphne Ware, PhD, Mississippi Public Health Laboratory

Attendees will learn about current recommendations regarding IGRA utilization and implementation of testing, including the QFT-Plus in different PHLs. This will include discussions on the complexities of IGRA testing and meeting the pre-analytical and analytical requirements. Attendees will also learn how PHLs can partner with their TB control program and other entities within their jurisdictions including corrections, refugee health and community based organizations to target at risk populations and perform investigations of public health importance.

Shaping Workforce Development Initiatives: Learning from an Environmental Scan of Public Health and Clinical Laboratory Communities

Room 211

Moderator: Reynolds Salerno, PhD, Centers for Disease Control and Prevention

- Renee Ned-Sykes, MMSc, PhD, Centers for Disease Control and Prevention
- Danielle Daniely, PhD, RBP, Centers for Disease Control and Prevention
- Anja Minnick, MSc, Centers for Disease Control and Prevention

Participants will learn about preliminary findings from an environmental scan regarding current gaps, critical needs and existing opportunities in laboratory training and workforce development. Participants will have the opportunity to brainstorm and help shape current and new initiatives to meet laboratory workforce needs.

9:00 am – 10:30 am

Awards Ceremony & Breakfast

Exhibit Halls AB

Sponsored by Hologic, Inc.

9:00 am – 2:00 pm

Posters available for viewing in the exhibit hall

Exhibit Halls AB

10:00 am – 2:00 pm

Exhibit Hall open

Exhibit Halls AB

10:30 am – 11:00 am

Break in the Exhibit Hall

Exhibit Halls AB

11:00 am – 12:30 pm

PLENARY SESSION

Labs, Camera, Action! Public Health Storytelling for Podcasts, Film and News Media

Ballroom DE

Moderator: Michelle Forman, Association of Public Health Laboratories

- Sanden Totten, American Public Media's *Brains On!* podcast
- Michelle Faust, Southern California Public Radio
- TBD – The Science & Entertainment Exchange, National Academy of Sciences

Storytelling continues to be one of the most effective ways to convey the value of public health laboratory work to public audiences. The plenary would expose meeting attendees to these increasingly popular storytelling mediums: podcasts, digital news media and tv/film. This plenary will use a talk show style format that will allow the discussion to focus on health/science storytelling and include public health lab perspectives, while also ensuring one cohesive conversation.

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

- Explain the different ways stories are told on podcasts, in the news media and on tv and film.
- Identify specific aspects of their work that would be compelling to podcast, media and tv/film audiences
- List where to pitch those stories — their PIO, APHL communications staff, etc. — so they may be told via the proper medium and to the ideal audience

(588-818-18 – 1.5 contact hours for this session)

12:30 pm – 2:00 pm

Lunch in the Exhibit Hall (provided)

Exhibit Halls AB

Visit with the exhibitors and view posters

1:30 pm

Raffle Drawing in the Exhibit Hall

Exhibit Halls AB

2:00 pm – 3:00 pm

PLENARY SESSION: Dr. Katherine Kelley Distinguished Lecture

Activism and Stalemate: How the Threat of Antibiotic Resistance Turned the US Public Against Farm Antibiotic Use C COM

Ballroom DE

Moderator: Ewa King, PhD, Rhode Island Department of Health

- Maryn McKenna, journalist and author of *Big Chicken*, *Super Bug* and *Beating Back the Devil*

Maryn McKenna, acclaimed journalist and author, will discuss the growing threat of antibiotic resistance and her latest book, *Big Chicken*. She will specifically address agricultural antibiotic use and how public pressure finally forced the government to make important changes.

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

- Discuss how public pressure forced the government to make important changes regarding agricultural antibiotics

(588-819-18 – 1.0 contact hours for this session)

3:00 pm – 3:30 pm

Break

Ballroom DE Foyer

3:30 pm – 4:30 pm

CONCURRENT SESSIONS

Laboratory Response to Hepatitis Outbreak: Detection and Sequencing Aids Remediation Effort ID LL SRV

Ballroom DE

Moderator: Brett Austin, MA, PHM, San Diego County Health and Human Services

- Marty Soehnlén, PhD, MPH, Michigan Department of Health and Human Services
 - Sumathi Ramachandran, MS, MPH, PhD, Centers for Disease Control and Prevention
 - Jill Hacker, PhD, California Department of Public Health
 - Syreeta Steele, PHM, PhD, San Diego County Health and Human Services
 - Tracy Basler, San Diego County Health and Human Services
-

This session will describe the efforts of local, state and CDC laboratories to provide molecular sequencing information as a tool for epidemiologists to use to characterize a large hepatitis A outbreak. The utility of the data and the approaches taken by several laboratories to generate that data will be described.

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

- Describe the use of genetic cluster information in characterizing an outbreak
- List the methods used to generate sequence data

(588-821-18 – 1.0 contact hours for this session)

The ABC's of ISO 17025: (A)ccreditation, (B)est Practices, (C)osts to Implement and Sustain

Ballroom A

Moderator: Robyn Randolph, MS, Association of Public Health Laboratories

- Yvonne Salfinger, MS, Association of Public Health Laboratories
- Cynthia Mangione, New York State Department of Agriculture & Markets
- Robyn Randolph, MS, Association of Public Health Laboratories

This session will not only discuss the time and financial investments associated with laboratory accreditation but also highlight available resources, best practices, laboratory lessons learned, quality management tools and the costs associated with the different stages along the accreditation process.

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

- List the benefits of laboratory accreditation and strategies for obtaining and sustaining ISO 17025 accreditation
- Describe the impact of the ISO Laboratory Mentorship Program and ways to obtain assistance with accreditation efforts
- Describe the challenges surrounding the federal acceptance of state laboratory data

(588-820-18 – 1.0 contact hours for this session)

The Next Generation of QA/QC with Next Generation Sequencing

Ballroom B

Moderator: Collette Fitzgerald, PhD, Centers for Diseases Control and Prevention

- Lauren Turner, PhD, Virginia Division of Consolidated Laboratory Services
- Kimberlee Musser, PhD, Wadsworth Center, New York State Department of Health
- Atis Muehlenbachs, MD, Center for Disease Control and Prevention

As with any new laboratory test, the issue of developing new quality assurance and control can pose challenges. Next Generation Sequencing (NGS) is a very complex method, generating large amounts of data, which creates more complications in quality assurance and control approaches. This session will provide an opportunity for APHL members and CDC partners to share resources they have generated to aid in QA/QC and receive input from PHLs members on resources still needed.

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

- Explain the process of CLIA validation for an NGS test
- Identify the process of establishing QA/QC protocols for NGS protocols
- Describe the current priorities and resources on QA/QC and CLIA validation being developed at CDC to assist with the implementation and use of next generation

(588-822-18 – 1.0 contact hours for this session)

Public Health Environmental Laboratories' Challenges and Opportunities for Water Quality **EH** **SRV** **GEN**

Ballroom C

Moderator: Susie Dai, PhD, State Hygienic Laboratory at the University of Iowa

- James Schauer, PhD, PE, MBA, Wisconsin State Laboratory of Hygiene
- John Griffin, PhD, Southern California Coastal Water Research Project
- Dustin May, State Hygienic Laboratory at the University of Iowa
- Junesoo Park, PhD, California Environmental Protection Agency

Government laboratories play a fundamental role in protecting water quality and minimizing harmful human exposure. This science-driven session will focus on analytical environmental testing as the first line of public health protection related to hazards in US water, including emerging chemical contaminants, microbiological pathogens from recreational waters, radiological contamination and per- and polyfluoroalkyl substances (PFAS).

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

- Describe how science and public health laboratories help mitigate public health risks of chemical, biological and radiological water contaminants
- Explain how technologies have progressed in water analysis and how policy could enhance monitoring activities

(588-823-18 – 1.0 contact hours for this session)

4:30 pm – 5:00 pm

Break

Ballroom DE Foyer

5:00 pm – 6:00 pm

Member Assembly

Ballroom DE

6:00 pm – 8:00 pm

Optional Tour of the Pasadena Environmental Chemistry Laboratory

Tuesday, June 5, 2018

7:30 am – 12:30 pm

Registration

Ballroom DE Foyer

7:30 am – 9:00 am

Coffee

Ballroom DE Foyer

8:00 am – 8:45 am

ROUNDTABLES

Podcasting: Telling the Public Health Laboratory's Stories

W COM MLD

Room 207

Moderators: Amanda Hughes, State Hygienic Laboratory at the University of Iowa and Kate Wainwright, PhD, D(ABMM), HCLD (ABB), Indiana State Department of Health

- Emerging Leader Program Cohort 10

As their group project, Emerging Leader Program (ELP) Cohort 10 will produce episodes for APHL's podcast to promote the work of public health laboratories (PHL). The group will share their experiences and facilitate a discussion with attendees to encourage other PHL professionals to use podcasts to tell their stories as a way of engaging with public audiences.

Is Your Food Making You Sick? Detecting and Regulating Allergens in Food

FS MCB

Room 208

Moderator: Cynthia Mangione, New York State Department of Agriculture & Markets

- Robert Sheridan, New York State Department of Agriculture & Markets (Invited)
- Steven Taylor, PhD, University of Nebraska-Lincoln (Invited)

This session will provide public health laboratory staff with information about the most commonly found food allergens. It will describe potential tools and strategies to effectively incorporate testing for these allergens into the laboratory's surveillance activities.

Partnering Together to Solve Challenges Around Next Generation Sequencing (NGS)

Room 211

- Lucy DesJardin, PhD, State Hygienic Laboratory at the University of Iowa
- Sandra Smole, PhD, William A. Hinton State Laboratory Institute (MA)

The use of next generation sequencing (NGS) technologies in public health laboratories has highlighted gaps in the current workforce around bioinformatics capabilities and capacity which several public health laboratories have attempted to address through unique partnerships with academia, industry and other PHLs. This session will describe a few examples of how these partnerships have impacted implementation of advanced molecular detection on laboratories as well as the challenges and opportunities associated with forming these partnerships.

Risky Business: The Trials and Tribulations of Educating Clinical Partners on Biosafety and Biorisk Management

Room 212/214

Moderator: Randal Fowler, PhD, D(ABMM), Centers for Diseases Control and Prevention

- Drew Fayram, MS, State Hygienic Laboratory at the University of Iowa
- Erin Bowles, MT(ASCP), Wisconsin State Laboratory of Hygiene
- Robert Nickla, M(ASCP), Oregon State Public Health Laboratory

Public health and clinical laboratories partnerships are essential for maintaining and advancing biosafety practices. Learning about different experiences from APHL members tasked with biosafety outreach will promote discussion on the challenges and strategies to promote successful biosafety training programs.

9:00 am – 10:30 am

CONCURRENT SESSIONS

Biosafety: Today and Tomorrow

Ballroom DE

Moderator: Christina Egan, PhD, Wadsworth Center, New York State Department of Health

- **Changing Biosafety Practices**
Michael A. Pentella, PhD, D(ABMM), State Hygienic Laboratory at the University of Iowa
- **Advancing Biosafety Across the US Clinical Laboratory Community**
Reynolds M Salerno, PhD, Centers for Disease Control and Prevention
- **Working with Clinical Laboratories to Improve Biosafety**
Erin Bowles, MT(ASCP), Wisconsin State Laboratory of Hygiene

CDC and APHL have focused on improving biosafety practices in clinical laboratories since 2015. To further this mission, APHL created a “Partners Forum” to collaborate with representatives of the clinical laboratory community. This session will serve to review success and failures and predict what future directions, such as regulatory requirements, may occur.

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

- Describe the impact on biosafety practices that CDC and APHL efforts have achieved
- Explain how CDC, APHL and other organizations are working to advance clinical laboratory biosafety nationwide, and what gaps remain
- Describe approaches biosafety officers can use to work with clinical laboratories to improve biosafety

(588-826-18 – 1.5 contact hours for this session)

The Evolving Analysis of Vaccine Preventable Outbreaks and Their Causative Agents

Ballroom A

Moderator: Kirsten St. George, PhD, Wadsworth Center, New York State Department of Health

- **The Bacterial Meningitis Genome Analysis Platform for Surveillance**
Adam Retchless, PhD, Centers for Disease Control and Prevention
- **Enhanced Analysis of Mumps Outbreaks with Next Generation/Whole Genome Sequence Analysis**
Patrick Bryant, PhD, Wadsworth Center, New York State Department of Health
- **Whole Genome MLST for Strain Differentiation and Cluster Analysis of *Bordetella pertussis***
Michael Weigand, PhD, Centers for Disease Control and Prevention
- **Molecular Clade Analysis and the Discrimination of Vaccine Strain from Wild Type Virus in CNS and Non-CNS VZV Disease**
Sara Griesemer, MS, Wadsworth Center, New York State Department of Health

While vaccination efforts have provided enormous achievements in infectious disease control during the 20th century, vaccine preventable diseases (VPDs) continue to pose considerable public health threats with ongoing responsibilities for public health laboratories. Increasingly sophisticated methods for the detection and analysis of VPD agents have been developed in recent years, with positive consequences for tracking outbreaks and clusters, as well as understanding disease processes and distinguishing the most important strains. New assays, platforms, software and automation continue to provide increasingly easy access to more detailed data at a cheaper rate, on more user-friendly devices, making the methods potentially accessible to a wider range of users.

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

- Define some of the sophisticated molecular methods and platforms that have been recently developed, such as whole genome sequence analysis of mumps virus and whole genome MLST analysis of pertussis, for the more extensive and detailed analysis of the causative agents of VPDs, which have enabled more powerful strain discrimination and cluster analysis
- Describe additional analytical tools such as those used for clade analysis and specialized real-time assays to distinguish vaccine and wild type strains, as well as some of the new software and pipelines for NGS data processing and management of VPD NGS data
- Describe how these techniques have been applied to recent VPD outbreaks to analyze disease spread, where previous techniques were insufficiently powerful to facilitate such an analysis

(588-824-18 – 1.5 contact hours for this session)

The Laboratory Twinning Experience: Creating Connections Between US and International Public Health Laboratories **GH** **MLD** **QMS**

Ballroom B

Moderator: Susan Madison-Antenucci, PhD, Wadsworth Center

- **Overview of the Public Health Institute and the Lab's Role**
Shelly Bratton, MPH, Centers for Disease Control and Prevention (Invited)
- **Experience on the Ground, Highlighting Uganda's Achievements from Twinning**
Steven Aisu, Uganda Ministry of Health (Invited)
- **What Does It Take for Twinning to Take Place: The Uganda Experience**
Dave Mills, PhD, New Mexico Scientific Laboratory Division (retired)
- **The Utah-Barbados Experience**
Patrick Luedtke, MD, MPH, Lane County (OR) Department of Health & Human Services

Lab twinning is the building of a long-term relationship between a US public health laboratory and a partner in a low-middle income country. The goals of creating the partnership include providing mentorship, generating sustainability and using global networking to improve public health systems. In this session participants will learn how the pairing provides sustained opportunities for professional development, technical assistance and continuing education in a mutually beneficial partnership.

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

- Describe what lab twinning is and how they and their PHL can be involved
- List how APHL supports the development of the relationship that forms the basis of the partnership
- Describe how laboratories benefit from the partnership and exchange of information

(588-825-18 – 1.5 contact hours for this session)

Risk Communication When Cyanotoxin Response Changes from Emergent to Monitoring **EH** **EMR** **COM**

Ballroom C

Moderator: Henry Leibovitz, PhD, Rhode Island Department of Health

- Nikola Dзамov, PhD, Ohio Environmental Protection Agency
- Cindy Sonich-Mullin, MS, US Environmental Protection Agency
- Kacee Deener, MPH, US Environmental Protection Agency

Emergency response communication requires the use and interpretation of laboratory methods and data to accurately convey the potential risk. This session will explore the risk communication challenges faced by the Ohio EPA Laboratory and the EPA Office of Research and Development's (ORD) Cincinnati-based research laboratory when harmful algal blooms resulted in the contamination of the City of Toledo drinking water supply and the Ohio River with cyanotoxins, threatening drinking water supplies using the Ohio River as their drinking water source.

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

- Describe how EPA Ohio and EPA ORD collaborated during the Toledo crisis
- Explain how laboratories collaborate with programs to communicate to emergency responders and the public

(588-827-18 – 1.5 contact hours for this session)

10:30 am – 11:00 am

Break

Ballroom DE Foyer

11:00 am – 12:30 pm

PLENARY SESSION

Responding to Natural Disasters: Hurricane Season

Ballroom DE

Moderator: James Crockett, MPA, Centers for Disease Control and Prevention

- Andrew Cannons, PhD, Florida Bureau of Public Health Laboratories—Tampa
- Satish Pillai, MD, Medical Officer, Centers for Disease Control and Prevention
- Christine Bean, PhD, New Hampshire Public Health Laboratory
- Larry Seigler, PhD, Houston Public Health Laboratory

Presenters in this interactive session will discuss the course of action taken to respond to a natural disaster, including first-person experiences during Hurricanes Irma, Harvey and Maria in 2017. Viewpoints will be provided from the federal, state and local government perspective.

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

- Discuss how to engage partners and utilize information sharing to manage responses
- Describe steps to restore essential laboratory testing services when they are affected by natural disasters
- Relay the lessons learned from a natural disaster in order to be better prepared to respond to future incidents
- Discuss challenges from natural disasters and its impacts on laboratory system testing capabilities

(588-828-18 – 1.5 contact hours for this session)

12:30 pm

Meeting adjourns

1:00 pm – 5:00 pm

Optional Tour of the Los Angeles County Public Health Laboratory

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