virtual conference

APHL™ 2020

September 22 – October 15
Tuesdays and Thursdays

Preliminary Program

www.aphl.org/AC
#aphl
The APHL 2020 Virtual Conference will take place on Tuesdays and Thursdays over a 4-week period from September 22 to October 15, 2020. It is a virtual 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.

The conference will include several plenary sessions per day along with posters and exhibits. The sessions will be 60 minutes long and will consist of a welcome, pre-recorded presentations (video and PowerPoint slides) and questions and answers. Posters will be viewable as an e-poster with a short video presentation. There will be a virtual exhibit hall with information on the latest in products and services and links to interact with exhibitor staff. Access to the conference requires a Zoom account.

The APHL 2020 Virtual Conference is open to anyone with an interest in the work of public health laboratories.
**Not to Miss!**
All listed times are Eastern.

**Dr. Katherine Kelley**
**Distinguished Lecture**
**Wednesday, October 7, 1:00 pm – 2:00 pm ET**

**Public Health 3.0: A 21st Century Model for 21st Century Challenges**

Public health is what we do together as a society to ensure the conditions in which everyone can be healthy. Although many sectors play key roles, governmental public health is an essential component. Even before COVID-19, recent stressors on public health are driving many local governments to pioneer a new Public Health 3.0 model in which leaders serve as Chief Health Strategists, partnering across multiple sectors and leveraging data and resources to address social, environmental and economic conditions that affect health and health equity.

*Karen B. DeSalvo, MD, MPH, MSc* is Chief Health Officer at Google Health. She is also adjunct Professor of Medicine and Population Health at University of Texas at Austin Dell Medical School and co-convenes the National Alliance to Impact the Social Determinants of Health. She is a physician executive working at the intersection of medicine, public health and information technology to improve the health of all people with a focus on catalyzing pragmatic solutions to address all the social determinants of health. She earned her MD and MPH from Tulane University, and a masters in clinical epidemiology from the Harvard School of Public Health.

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**Innovate!**
**Tuesday, Sep 29 and Oct 13**
**Thursday, Sep 24 and Oct 8**
2:30 pm – 3:30 pm ET

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

**Exhibit and Poster Hall**
**Tuesdays and Thursdays**
**Sep 22 through Oct 13**
10:00 am – 5:00 pm ET

Exhibitors and Posters will be open and available for viewing throughout the virtual conference. Be sure to visit the exhibitors to see the latest products and services and the posters to learn the latest science and practices. Watch videos, see e-posters and chat with exhibitor staff and poster presenters.

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**Session Topics Guide**

**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.

**Competencies**
The Centers for Disease Control and Prevention (CDC) and the 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 APHL 2020 Virtual Conference program will include one or more symbols corresponding to the related competency domain(s) that the session addresses. This guide is listed below.

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**APHL 2020 Virtual Conference • September 22 – October 15, 2020**
Agenda at a Glance

All listed times are Eastern.

**Wednesday, October 7, 1:00 pm – 2:00 pm ET**

**Dr. Katherine Kelley Distinguished Lecture**

*Public Health 3.0: A 21st Century Model for 21st Century Challenges*

Karen B. DeSalvo, MD, MPH, MSc, Chief Health Officer at Google Health

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**Tuesday, September 22**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Session 3
- 3:30 pm - Exhibits and Posters

**Tuesday, September 29**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Session 3
- 3:30 pm - Exhibits and Posters

**Tuesday, October 6**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Session 3
- 3:30 pm - Exhibits and Posters

**Tuesday, October 13**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Session 3
- 3:30 pm - Exhibits and Posters

**Thursday, September 24**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Innovate! Sessions
- 3:30 pm - Exhibits and Posters

**Thursday, October 1**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Session 3
- 3:30 pm - Exhibits and Posters

**Thursday, October 8**

- 11:00 am - Session 1
- 12:00 pm - Break
- 1:00 pm - Session 2
- 2:00 pm - Break
- 2:30 pm - Innovate! Session
- 3:30 pm - Exhibits and Posters
Agenda of Events  
All listed times are Eastern. As of July 24, 2020. Subject to change.

Tuesday, September 22

10:00 am – 5:00 pm  
Exhibit Hall and Posters Open

11:00 am – 12:00 pm  
Severe Respiratory Disease Outbreaks: A Focus on Novel Coronavirus

1:00 pm – 2:00 pm  
Use of NGS for Virology: It's Not Just Flu

2:30 pm – 3:30 pm  
Environmental Metagenomics: The Next Generation in Environmental Microbiological Testing

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**Exhibit Hall and Posters Open**

**Severe Respiratory Disease Outbreaks: A Focus on Novel Coronavirus**

- **ID**
- **MCB**
- **SRV**
- **588-800-20 • 1.0 contact hour**

Moderator: Erik Reisdorf, MPH, Wisconsin State Laboratory of Hygiene

Speakers:
- Kirsten St. George, MS, PhD, New York State Department of Health, Wadsworth Center
- Amy Schuh, PhD, MPH, MT(ASCP), Centers for Disease Control and Prevention

The COVID-19 response is of a magnitude not previously seen in the era of modern laboratory science. The high reliance on testing in this response has presented a myriad of challenges to the public health laboratory system. Presenters will discuss some of their most effective approaches to dealing with ongoing challenges and how they are preparing for the upcoming respiratory season while still in the midst of an active public health response.

**Break / Visit the exhibit hall and posters**

**Use of NGS for Virology: It's Not Just Flu**

- **ID**
- **CH**
- **BIO**
- **MCB**
- **588-801-20 • 1.0 contact hour**

Moderator: Joel Sevinsky, PhD, Theiagen Consulting LLC

Speakers:
- Daniel Park, PhD, Broad Institute of MIT and Harvard University
- Terry Fei Fan Ng, PhD, Centers for Disease Control and Prevention

Next-generation Sequencing (NGS) is quickly evolving from a Whole Genome Sequencing (WGS) -centric technology to a metagenomics-centric technology, and nowhere is this more evident than in the area of viral genomics and biosurveillance. The speakers will present their experience using NGS, especially metagenomics, for biosurveillance of viral pathogens of high public health importance.

**Break / Visit the exhibit hall and posters**

**Environmental Metagenomics: The Next Generation in Environmental Microbiological Testing**

- **EH**
- **ELS**
- **MCB**
- **BIO**
- **588-802-20 • 1.0 contact hour**

Moderator: Enoma Omoregie, PhD, New York City Department of Health

Speakers:
- Using Metagenomics to Identify Microbial Contamination in the Food Chain  
  Joseph Heinzelmann, MBA, Neogen Corporation
- A Metagenomic Approach to Evaluating Recreational Water Quality  
  Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department

Our water, food and built environment can provide a conduit for pathogen transmission, but traditional environmental microbiological tests are limited to specific pathogens or indicators. Metagenomics methods allow the rapid and simultaneous detection of a large number of pathogens. Presenters will explore the barriers and challenges, as well as the use of metagenomic methods for pathogen detection in environmental systems.

**Visit the exhibit hall and posters**

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APHL 2020 Virtual Conference • September 22 – October 15, 2020
Thursday, September 24

10:00 am – 5:00 pm
Exhibit Hall and Posters Open

11:00 am – 12:00 pm
Increasing Capacity in Clinical Mycology Testing

588-803-20 • 1.0 contact hour

Moderator: Elizabeth L. Berkow, PhD, MLS (ASCP), Centers for Disease Control and Prevention

MALDI-TOF for Fungal Pathogens
Natalie Nunnally, MLS (ASCP), Centers for Disease Control and Prevention

Testing of Emerging /Re-emerging Fungal Pathogens: A Public Health Perspective
Sudha Chaturvedi, PhD, New York State Department of Health, Wadsworth Center

The Current Landscape of Antifungal Susceptibility Testing
Shawn Lockhart, PhD, D(ABMM), F(AMM), Centers for Disease Control and Prevention

Many clinical laboratories still perform minimal mycology testing. However, with the emergence of Candida auris, the rise of drug resistant Aspergillus fumigatus and recurring incidences of hospital-associated mold outbreaks, the clinical laboratory has opportunity to reevaluate what mycology testing is performed in-house. Presenters share information on increasing capacity in MALDI-TOF for yeast and molds, responding to fungal disease outbreaks and navigating the landscape of antifungal susceptibility testing.

1:00 pm – 2:00 pm
Biosecurity Drills and Exercises

588-804-20 • 1.0 contact hour

Moderator: Maureen Sullivan, MPH, Minnesota Department of Health

Biosecurity is often seen as an afterthought in laboratories, where laboratory staff do not received adequate training to improve their skills in this area. Through the APHL Biosafety and Biosecurity Committee, APHL is gathering successful biosecurity training techniques such as drills and exercises from public health laboratories and private laboratories to promote them across all laboratories. Learn how speakers delivered successful drills and exercises in their institutions.

2:00 pm – 2:30 pm
Break / Visit the exhibit hall and posters

2:30 pm – 3:30 pm
Innovate! session TBD

3:30 pm – 5:00 pm
Visit the exhibit hall and posters
Tuesday, September 29

10:00 am – 5:00 pm
Exhibit Hall and Posters Open

11:00 am – 12:00 pm
A Step Ahead of Threats: Rebuilding Public Health Systems

Moderator: LCDR Eduardo O’Neill La Luz, PhD, MS, MPH, Centers for Disease Control and Prevention
Speakers:
- Carolina Luna-Pinto, MPH, CHES, Centers for Disease Control and Prevention
- Brett Ellis, PhD, MSPH, US Virgin Islands Territorial Public Health Laboratory
In late 2018, APHL was awarded a two-year, $15.1 million dollar cooperative agreement by the US Centers for Disease Control and Prevention (CDC) to provide technical assistance for response to public health crises in three jurisdictions — Puerto Rico, US Virgin Islands and Houston — impacted by the hurricanes. Presenters will describe the work that is being done through APHL, the jurisdictions and CDC to rebuild public health systems in those impacted jurisdictions.

12:00 pm – 1:00 pm
Break / Visit the exhibit hall and posters

1:00 pm – 2:00 pm
Prepare Yourself: Metagenomics Is Here!

Moderator: Joel Sevinsky, PhD, Theiagen Consulting LLC

A Metagenomics Primer
Joel Sevinsky, PhD, Theiagen Consulting LLC

What Happens When We Don’t Have Cultures?
Public Health Surveillance in the Age of CIDTs
A. Jo Williams-Newkirk, PhD, Centers for Disease Control and Prevention

MetagenomeTrakr: The Use of Metagenomics for Improved Food Safety
Christopher J. Grim, PhD, US Food and Drug Administration
The true promise of Next Generation Sequencing (NGS) is metagenomics — the direct sequencing of clinical specimens and environmental samples. Metagenomics will improve upon the work done with WGS by providing early, effective and efficient detection of pathogens directly from the specimen or sample, from a wide range of matrices, with no need for culturing.

2:00 pm – 2:30 pm
Break / Visit the exhibit hall and posters

2:30 pm – 3:30 pm
Innovate! session TBD

3:30 pm – 5:00 pm
Visit the exhibit hall and posters
Thursday, October 1

10:00 am – 5:00 pm
**Exhibit Hall and Posters Open**

11:00 am – 12:00 pm
**Weird Science: Unusual Cases in Infectious Diseases**

Moderator: Anthony Tran, DrPH, MPH, D(ABMM), DC
Public Health Laboratory

Speakers:
- Megan Crumpler, PhD, HCLD, Orange County (CA) Public Health Laboratory
- Stephen LaVoie, PhD, New York City Department of Health and Mental Hygiene
- Marie-Claire Rowlinson, PhD, D(ABMM), Florida Bureau of Public Health Laboratories
- Shawn Lockhart, Centers for Disease Control and Prevention

The public health laboratory is often the laboratory of last resort for diagnosis of unusual cases, detection of emerging infectious diseases and outbreaks. “Weird Science” is a quiz-style experience that challenges a panel of experts with diagnostic conundrums, and encourages audience participation. This year our panel of experts will consist of two teams who will compete against each other. Let’s see which team triumphs!

12:00 pm – 1:00 pm
**Break / Visit the exhibit hall and posters**

1:00 pm – 2:00 pm
**Navigating Advocacy and Policy for Public Health Laboratories: A Domestic and Global Perspective**

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

Speakers:
- Peter Kyriacopoulos, Association of Public Health Laboratories
- Ralph Timperi, MS, Association of Public Health Laboratories
- Grace Kubin, PhD, Texas Department of State Health Services

An overview of public health policy for laboratorians interested in advocacy efforts, including tips and best practices for advocacy, to support domestic and global health laboratories. Discussions will include Global Health investments, funding status, challenges in the current political climate, advocacy experiences and the value of networking for a collaborative approach.

2:00 pm – 2:30 pm
**Break / Visit the exhibit hall and posters**

2:30 pm – 3:30 pm
**Lay Down the Law: Setting the Bar High for Cannabis Testing Best Practices and Methodology**

Moderator: Marc Nascarella, PhD, MS, CPH, Massachusetts Department of Public Health

Speakers:
- Gillian Schauer, PhD, MPH, University of Washington
- Susan Audino, PhD, AOAC International Cannabis Analytical Science Program (CASP)
- Sunny Summers, Oregon Department of Agriculture

Dr. Gillian Schauer will open the session with a national overview of cannabis testing policy issues. Dr. Susan Audino will then discuss the latest developments in analytical methodology and AOAC efforts to standardize cannabis testing methods. Sunny Summers will close the session with a description of the Oregon Department of Agriculture’s Hemp Program. Oregon was the first state to decriminalize cannabis in 1973 and legalized medical marijuana in 1998.

3:30 pm – 5:00 pm
**Visit the exhibit hall and posters**
Tuesday, October 6

10:00 am – 5:00 pm
Exhibit Hall and Posters Open

11:00 am – 12:00 pm
Emerging Environmental Issues: From Analysis to Communication

588-810-20 • 1.0 contact hour
Moderator: Lori Pillsbury, MS, Oregon Department of Environmental Quality Laboratory

Increasing Public Access to Accurate Air Quality Information Through the Use of Low-cost Sensors
Anthony Barnack, MS, Oregon Department of Environmental Quality Laboratory

Monitoring Cyanotoxins to Protect Public Health in Oregon
- Alison Minerovic, Oregon Department of Environmental Quality Laboratory

The Oregon Department of Environmental Quality Laboratory (DEQ) is focused on emerging environmental issues that affect communities surrounding the laboratory. Learn how DEQ addressed topics from sampling to analysis to data assessment and communication.

12:00 pm – 1:00 pm
Break / Visit the exhibit hall and posters

1:00 pm – 2:00 pm
Stories From the Field: Discussing the Use of Laboratory Information Systems in Data Backup and Recovery in the Wake of Cyclone Idai

588-811-20 • 1.0 contact hour
Moderator: Frances Downes, DrPH, Michigan State University
Speakers:
- Solon Kidane, APHL Mozambique
- Reshma Kakkar, Association of Public Health Laboratories

Cyclone Idai made landfall near Beira, one of Mozambique’s largest cities in March 2019. The Ponta Gea Health Facility in Beira is the main reference laboratory for HIV viral load (VL) testing and incurred severe damage and flooding of the server rooms. APHL's Global Health and Informatics committees worked on a backup systems toolkit that was implemented by APHL Mozambique’s staff. Learn what steps they took and how HIV VL testing continued.

2:00 pm – 2:30 pm
Break / Visit the exhibit hall and posters

2:30 pm – 3:30 pm
Bridging the Gap Between Clinical and Public Health

588-812-20 • 1.0 contact hour
Moderator: Jasmine Chaitram, MPH, MT(ASCP), Centers for Disease Control and Prevention
• Robert Nickla, RBP, M(ASCP), Oregon State Public Health Laboratory
• Judith Guzman-Cottrill, DO, Oregon Health and Science University
• William Becker, DO, MPH, Quest Diagnostics

The success of the public health system relies on the continued effort and dedication of professionals across a spectrum of different areas. Public-private partnerships are critical in ensuring that public health professionals and clinical practices can meet the growing patient demands of laboratory testing specialties and provide critical results in a safe and timely.

3:30 pm – 5:00 pm
Visit the exhibit hall and posters
### Wednesday, October 7

1:00 pm – 2:00 pm
**Dr. Katherine Kelley Distinguished Lecture**
588-813-20 • 1.0 contact hour

**Public Health 3.0: A 21st Century Model for 21st Century Challenges**

Moderator: Bill Whitmar, MS, Missouri State Public Health Laboratory
Speaker: Karen DeSalvo, MD, MPH, MSc, Chief Health Officer, Google Health

Public health is what we do together as a society to ensure the conditions in which everyone can be healthy. Although many sectors play key roles, governmental public health is an essential component. Even before COVID-19, recent stressors on public health are driving many local governments to pioneer a new Public Health 3.0 model in which leaders serve as Chief Health Strategists, partnering across multiple sectors and leveraging data and resources to address social, environmental and economic conditions that affect health and health equity.

### Thursday, October 8

10:00 am – 5:00 pm
**Exhibit Hall and Posters Open**

11:00 am – 12:00 pm
**New Genomic Sequencing Methods and Analysis Tools for STD Pathogens**
588-814-20 • 1.0 contact hour

Moderator: Megan Crumpler, PhD, Orange County (CA) Public Health Laboratory
Speakers:
- Allan Pillay, PhD, Centers for Disease Control and Prevention
- Brian Raphael, PhD, Centers for Disease Control and Prevention
- Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department

Rates of sexually transmitted diseases (STDs) are rising nationally and public health laboratories (PHLs) play a central role in understanding trends in circulating strain populations, characterizing antimicrobial resistance and detection of outbreaks. Presenters introduce new analytical methods available to PHLs for characterizing gonococcal isolates. We will explore new whole genome sequencing (WGS) methods for difficult-to-culture pathogens such as *Treponema pallidum* and *Chlamydia trachomatis* which could help PHLs distinguish sporadic cases from clusters or outbreaks.

12:00 pm – 1:00 pm
**Break / Visit the exhibit hall and posters**

1:00 pm – 2:00 pm
**Stories from the Field: Discussing the Ghana Biorisk Assessments**
588-815-20 • 1.0 contact hour

Moderator: Shannon L. Emery, MSPH, Association of Public Health Laboratories
Speakers:
- Michael J. Perry, MS MSEd, New York State Department of Health, Wadsworth Center
- Michael Marsico, MS, Association of Public Health Laboratories

Through the collaboration between the APHL Global Health and Public Health Preparedness and Response teams, a successful Biorisk Assessment in Ghana was delivered. Biosecurity and biosafety are important topics in international laboratories. Biorisk assessments enable laboratories to review their biosafety and biosecurity status and create action plans to mitigate against risk.

2:00 pm – 2:30 pm
**Break / Visit the exhibit hall and posters**

2:30 pm – 3:30 pm
**Innovate! sessions (2) TBD**

3:30 pm – 5:00 pm
**Visit the exhibit hall and posters**
Tuesday, October 13

10:00 am – 3:30 pm
Exhibit Hall and Posters Open (Last Day)

11:00 am – 12:00 pm
Case Studies: Laboratory Acquired Infection **ID** **MCB**
588-816-20 • 1.0 contact hour
Moderator: Michael A. Pentella, PhD, (ABMM), State Hygienic Laboratory at the University of Iowa
Speakers:
- Michael A. Pentella, PhD, (ABMM), State Hygienic Laboratory at the University of Iowa
- Frances P. Downes, DrPH, Michigan State University
Clinical laboratories have experienced many exposures such as Brucella through the recent years. In responding to these exposures, the clinical laboratory often seeks expertise from their public health laboratory. Participants will receive the case history of an event including biological risk factors and biosafety practices to consider the root cause of the incident along with describing the business case for preventing exposures.

1:00 pm – 2:00 pm
Incorporating Virtual Reality (VR) into Laboratory Training: How We Did It, What We Learned and What This Means for Future Training **W** **WFT**
588-817-20 • 1.0 contact hour
Moderator: Kevin Clark, Centers for Disease Control and Prevention
Speakers:
- Joe Rothschild, Centers for Disease Control and Prevention
- Chris Voegeli, Centers for Disease Control and Prevention
CDC Training and Workforce Development Branch share its VR laboratory training course. Learn about its development, findings from the evaluation and implications for the future of VR in training laboratory professionals.

12:00 pm – 1:00 pm
Break / Visit the exhibit hall and posters

2:00 pm – 2:30 pm
Break / Visit the exhibit hall and posters

2:30 pm – 3:30 pm
Innovate! session TBD
Thursday, October 15

11:00 am – 12:00 pm
Lessons Learned or Lost from the Ebola Epidemic and Similarities to SARS-CoV-2

588-818-20 • 1.0 contact hour
Moderator: May Chu, PhD, Colorado School of Public Health
Speakers:
• Peter Iwen, PhD, MS, D(ABMM), F(AAM), Nebraska Public Health Laboratory
• Capt. Joel Montgomery, PhD, Centers for Disease Control and Prevention

Ebola is not gone; it continues in the Democratic Republic of the Congo (DRC) and may pop up anywhere. During the 2014–2016 West Africa epidemic, local/state/national public health laboratories had to improvise, devise and implement response practices. Many protocols had to be quickly devised. The US government provided $5 billion as Ebola supplemental funding to address the epidemic and to build resiliency. How did we do? How ready are we as a public health community to respond to Ebola now, if it “travels” from DRC to the US?

12:00 pm – 1:00 pm
Break

1:00 pm – 2:00 pm
Who Ya Gonna Call? How CDC’s Lab Aids Can Be Used to Meet Urgent Needs of Public Health Laboratories

588-819-20 • 1.0 contact hour
Moderator: Tara Henning, PhD, Centers for Disease Control and Prevention
Speakers:
• Shaniece Theodore, PhD, Centers for Disease Control and Prevention
• Jennifer Rakeman, PhD, New York City Public Health Laboratory
• David Lowe, PhD, Centers for Disease Control and Prevention
• Cecilia Kretz, PhD, Association of Public Health Laboratories
• M. Shannon Keckler, PhD, Centers for Disease Control and Prevention
• A. Christian Whelan, PhD, Diagnostic Laboratory Services, Inc.

CDC’s Laboratory Leadership Service (LLS) offers a Lab-Aid as a mechanism for a public health laboratory to request assistance from CDC to meet a critical need. The panel will provide an overview on how to request a Lab-Aid and first-hand perspectives on the benefits of this type of partnership between a public health laboratory, LLS fellows and CDC subject matter experts.

2:00 pm – 2:30 pm
Break

2:30 pm – 3:30 pm
APHL President and CEO Discuss the Future

588-820-20 - 1.0 contact hour
Speakers:
• Bill Whitmar, President, Association of Public Health Laboratories
• Scott Becker, MS, CEO, Association of Public Health Laboratories

As a wrap up to the APHL 2020 Virtual Conference, APHL's president and chief executive officer will offer some thoughts on the state of the association. They will share the successes and challenges facing APHL currently and highlight priorities for APHL over the next year.

Information as of September 2, 2020. Please keep in mind that this schedule is a work in progress and is subject to change.