DESCRIPTION
This three and one-half day basic to intermediate level workshop will feature in-depth presentations and hands-on sessions on bacterial foodborne illness. Experts will present the most current information on test methodologies including separation techniques, PCR technology, and toxin testing. The role of the public health laboratory (PHL) in foodborne illness investigation will be discussed. Strategies in laboratory safety and method validation will be presented. Participants will perform a variety of testing methods using selected foodborne etiological agents.

OBJECTIVES
At the conclusion of this program, the participant will be able to:
- Describe the challenges to detecting pathogens in food.
- Explain the process and methods for isolating bacteria in food samples.
- Discuss the advantages and barriers to detecting foodborne pathogens by molecular methods.
- Define the activities necessary to validate a new laboratory procedure.
- Provide an overview of laboratory accreditation.
- Perform procedures for the identification of B. cereus, Staphylococcal enterotoxin, E.coli O157:H7, Salmonella spp., and Listeria monocytogenes.
- Analyze and interpret results of identification assays.
- Define the role of the PHL in foodborne illness investigation.

AUDIENCE
This basic to intermediate level course is intended for laboratory personnel working in public health laboratories who have a minimum of one year experience performing microbiology testing and responsibility (or the potential) for conducting food microbiology testing.

CONTINUING EDUCATION
The Association of Public Health Laboratories (APHL) is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E. Program. Participants who successfully complete this program will be awarded 27 contact hours. This course has been approved for 27 contact hours in the category (Microbiology/Mycology/Parasitology) for Florida Laboratory Licensees.

LOCATION
Minnesota Dept. of Agriculture, Laboratory Services Division
St. Paul, MN 55155

APPLICATION
Application Deadline: February 13, 2017
- The preliminary application is to be completed online.
- Only completed applications received by the deadline will be considered. Application does not guarantee acceptance. If you are unable to complete the application online, email Susan Bailey or phone +1 240.485.2746.
- Public health applicants must have approval from their state or local laboratory director to apply.
- Students will be selected according to the degree to which the applicant’s job description, experience, and responsibilities are consistent with the prerequisites.
- Priority will be given for one applicant per public health laboratory, with a second person considered on a space available basis.
- Notification of acceptance status will be sent via email after February 21, 2017.

REGISTRATION & LOGISTICS
- Registration for this workshop is being offered at No Charge to the participants!
- Registration and logistical details will be provided upon acceptance into the course.
- Some states have lengthy travel approval processes so begin as soon as possible. Do NOT make travel arrangements until you are notified of acceptance into the course.
- Participants are responsible for lodging, meals, and travel costs. A group lodging discount is being negotiated at the current federal per diem rate of $145.00 (plus tax and fees) per night.
- Daily transportation to and from the hotel and laboratory will be provided.

QUESTIONS?
Please email Susan Bailey, APHL Customer Service Manager.
PRELIMINARY AGENDA

Day 1  Tuesday, May 23, 2017
8:00 a.m.  Welcome, Staff and Student Introductions
8:45  Course Overview
9:00  Pre-Test
9:15  Break (provided)
9:30  Lecture: Introduction to Foodborne Illness
10:15  Lecture: Reference Methods
10:45  Lecture: *Bacillus cereus* Method Algorithm, Making Dilutions
11:45  Lunch (provided)
12:30 p.m.  Lecture: Laboratory Safety Overview
1:00  Laboratory: *Bacillus cereus* Set-Up and Plating
2:30  Break (provided)
3:15  Laboratory: Sample Processing, Set-Up *E. coli* O157:H7, *L. monocytogenes* and *Salmonella* Selective Enrichment
5:00  Adjourn

Day 2  Wednesday, May 24, 2017
8:00 a.m.  Lecture: Overview of PCR
8:45  Lecture: Shiga Toxin-Producing *E. coli*: Enrichment Preparation, Cultural Isolation, and PCR Confirmation
9:45  Break (provided)
10:00  Laboratory: *E. coli* PCR using ABI, Demo BAX
11:30  Lecture: *Salmonella* Methodology
12:15 p.m.  Lunch (provided)
1:00  Laboratory: Observe *E. coli* PCR Results; *E. coli* IMS and Plating
2:30  Break (provided)
2:45  Laboratory: *Salmonella* Selective Enrichment and *Listeria* 24h Plating and Transfer
3:45  Laboratory: Observe *B. cereus* Plates
4:30  Lecture: Chain-of-Custody: Don’t Break the Chain!
5:00  Adjourn

Day 3  Thursday, May 25, 2017
8:00 a.m.  Review Previous Day’s Activities, Question and Answers
8:30  Lecture: Challenges to Detecting Pathogens in Foods
9:30  Break (provided)
9:45  Lecture: Foodborne Intoxication
10:45  Laboratory: VIDAS
12:15 p.m.  Lunch (provided)
1:00  Lecture: Validation and Verification of Analytical Methods
1:45  Lecture: Accreditation to ISO/IEC 17025, Quality System for the Food Testing Laboratory
2:15  Break (provided)
2:30  Lecture: *Listeria* Methodology
3:15  Laboratory: Streak Selective Agar, Demo TSI and LIA, Demo *Salmonella* Plates, Observe 24h *Listeria* and Demo Plates, Observe *E. coli* Plates
5:00  Adjourn

Day 4  Friday, May 26, 2017
8:00 a.m.  Lecture: Laboratory Detection of Viruses Transmissible by Food and Water
9:00  Case Study
10:15  Break (provided)
10:30  Laboratory: Observe *Salmonella* and *Listeria* Plates
11:00  Review of Differential, Selective Media Used in Course, Demo Plates
11:45  Laboratory: Practical Exam
12:00 p.m.  Post-Test, Wrap-Up and Evaluation
12:30  Adjourn, Optional Laboratory Tour

FACULTY

- **Matthew Forstner, BS**
  Microbiology Supervisor, Minnesota Department of Agriculture, Laboratory Services Division, St. Paul, MN

- **Darcy Hanes, PhD**
  Captain, United States Public Health Service, Food and Drug Administration, Division of Virulence Assessment, Laurel, MD

- **Kirsten Larson, MPH**
  Manager, Food Safety, APHL, Silver Spring, MD

- **Kristina McCallum, BS**
  Deputy Lab Manager, Biochemistry Laboratory, CO Dept. of Agriculture, Denver, CO

- **Yvonne M. Salfinger, MS**
  FL Department of Agriculture & Consumer Services, (retired)
  Bureau Chief, Bureau of Food Laboratories, Denver, CO

- **Bryanne Shaw, BS**
  Biology Section Manager, Minnesota Department of Agriculture, Laboratory Services Division, St. Paul, MN

- **Christopher Waggener, PhD**
  Lead Scientist, FERN Training Coordinator, Division of Consolidated Laboratories, Richmond, VA

SPECIAL NEEDS

In compliance with the Americans with Disabilities Act (ADA), individuals seeking special accommodations should submit their request in writing at least three weeks prior to start date of the workshop to APHL Customer Support. For more information phone +1 800.536.6586 or +1 240.485.2746.

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