

Artificial Intelligence in Public Health Laboratories – From Fundamentals to Future Frontiers

Preconference Workshop, APHL 2026
May 4, 2026 • 8:00 am – 11:00 am EDT
Baltimore Convention Center • Baltimore, MD

Course Number: **588-506-26**
Registration fee: **\$149 per person**
Register at: **www.aphl.org/AC**

DESCRIPTION

Recent findings from the 2025 APHL Survey on Understanding Artificial Intelligence (AI) revealed that while most public health laboratory professionals are experimenting with AI in their personal lives, fewer than one in three are using it in the workplace. Many cited barriers such as unclear policies, lack of training, security concerns, and uncertainty about how AI applies to laboratory practice.

This pre-conference session builds directly on those findings to help laboratories move from curiosity to confident, responsible use of AI. Participants will learn what AI is—and what it isn't—explore the tools already shaping data analysis and communication, and discuss how to start small with realistic, secure use cases.

Through live demonstrations, member case studies, and leadership perspectives, this three-hour session offers a roadmap for AI adoption in public health laboratories: from basic understanding and prompt engineering to policy readiness, ethical safeguards, and advanced innovations. Participants will leave with practical examples, trusted guardrails, and connections to a growing APHL network of laboratory AI pioneers.

OBJECTIVES

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

- Define core AI concepts relevant to laboratory science (machine learning, generative AI, predictive analytics)
- Identify safe and effective use cases for AI in the laboratory environment
- Recognize ethical, security and data-privacy considerations when using AI tools
- Apply basic prompt-engineering techniques to get accurate, verifiable results
- Evaluate leadership, workforce and policy readiness for AI adoption
- Connect with peers and APHL volunteers using AI for practical lab improvements

AUDIENCE

This workshop is for laboratory AI pioneers, laboratory information systems coordinators, and all levels of public health laboratory professionals, including laboratory directors, assistant laboratory directors and supervisors.

LEVEL OF INSTRUCTION

INTERMEDIATE: Refresher course; some basic knowledge is required; for the experienced staff technologist with some years of experience.

SPEAKERS

Lorelei Kurimski, Senior Director, Quality Systems and Analytics, APHL

Anewar Burka, Senior Manager, Quality Systems and Analytics, APHL

Jiada Li, PhD, Research Scientist IV (AI), New York State Department of Health

Luke Chandler Short, PhD, HCLD(ABB), Director, Public Health Laboratory, Dallas County Health and Human Services

TOPICS AND EXERCISES

TBD

CONTINUING EDUCATION CREDIT

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. P.A.C.E.[®] is accepted by all licensure states except Florida. This learning activity will provide 3.0 contact hours for the participant who successfully completes this training.