

# Bioinformatics Platform Options for Public Health Laboratorians

**APHL<sup>™</sup>2019**  
Where Laboratory Science and Public Health Meet

Preconference Workshop  
APHL 2019  
June 3, 2019 • 8:00–11:30 am CT  
St. Louis Union Station Hotel  
St. Louis, MO



## DESCRIPTION

With the introduction of Next Generation Sequencing (NGS) into public health laboratories, building infrastructure for data analysis is one of the biggest challenges. Attendees will participate in a combination of lectures and small group demonstration stations to get a deeper understanding of the types of platform options to host bioinformatics pipelines.

## OBJECTIVES

At the end of the workshop, the participant will be able to:

- Compare an in-house platform, a web-based platform and a commercial bioinformatics analysis platform
- Identify the types of pipelines that can be hosted on the various platforms
- Explain the necessary infrastructure and expertise needed to utilize each of the platforms

## AUDIENCE

Laboratory directors and senior scientists interested in learning more about bioinformatics platforms

## MODERATOR

**Christin L. Hanigan, PhD** • Senior Specialist, Advanced Molecular Detection, Association of Public Health Laboratories

## SPEAKERS

**Kevin Libuit, MS** • Bioinformatics Regional Support Lead Scientist, Virginia Division of Consolidated Laboratory Services

**Duncan MacCannell, PhD** • Chief Science Officer, Office of Advanced Molecular Detection, Centers for Disease Control and Prevention

**Kelly Oakeson, PhD** • Chief Scientist, Bioinformatics and Next Generation Sequencing, Utah Department of Health, Utah Public Health Laboratory

**Joel Sevinsky, PhD** • Head of Molecular Science Laboratory, Colorado Department of Public Health and Environment

## REGISTRATION

Registration fee: **\$125 per person**  
Register at [www.aphl.org/AM](http://www.aphl.org/AM)

**SPEAKERS AND COMPETENCIES** ►

## PROPOSED AGENDA

Introduction and overview of bioinformatics - **Duncan MacCannell, CDC**

Overview of specific platforms - three station rotation - **Kelly Oakeson, Kevin Libuit, Joel Sevinsky and Duncan MacCannell**

The three platforms that will be demonstrated will be:

- Bionumerics (Joel Sevinsky)
- In-house servers (Kelly Oakeson)
- Web-based interface – AMD portal and Galaxy (Duncan MacCannell and Kevin Libuit)

Wrap-up and summarization of bioinformatics applications and applicability – **Duncan MacCannell, CDC**

Questions and discussion panel of demo applications – **Duncan MacCannell, Kelly Oakeson, Joel Sevinsky and Kevin Libuit**

## COMPETENCIES ACHIEVED

Completion of this workshop will result in learning gained by the participant in the Bioinformatics domain, Beginner and Competent levels:

- BIO 3.01. Data analysis: Beginner - Selects which existing tools and algorithms to use for any given analysis; Competent - Determines options and parameters of tools to meet specified needs of a given data analysis
- BIO 4.02. Data management: Beginner - Describes data management techniques; Competent - Applies knowledge of data management techniques to relevant problems
- BIO 4.04. Allocation of computing resources: Beginner - Describe available computing resources and capacity; Competent - Allocates computing resources

[MMWR Competency Guidelines for Public Health Laboratory Professionals](#)

## 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.<sup>®</sup> Program. Participants who successfully complete each program will be awarded 3.0 contact hours. P.A.C.E.<sup>®</sup> is accepted by all licensure states except Florida. APHL is a Florida approved CE provider; each course has been approved for 3.0 contact hours for Florida Laboratory Licensees.

