

Next Generation Sequencing: From Concept to Reality at Public Health Laboratories

2016 APHL
ANNUAL MEETING
and tenth government environmental laboratory conference

Preconference Workshop
APHL Annual Meeting
June 6, 2016 • 8:00–11:30 am MT
Albuquerque Convention Center
Albuquerque, NM



DESCRIPTION

This session is designed to provide members with information about the utility of next generation sequencing (NGS), including quality assessment, data analysis tools, how to perform NGS efficiently in public health labs, and the utility of external partnerships for NGS.

Disease detection and outbreak investigations are being revolutionized by advances in laboratory techniques, including NGS. Public health laboratories need to take advantage of this new technology. Participants and speakers will share successful experiences and exchange ideas in order to implement and establish new workflows.

OBJECTIVES

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

- Identify methods to measure sequence quality and validation of NGS methods
- Describe tools used to perform NGS data analysis
- Identify methods to ensure efficient and timely performance of NGS in public health laboratories
- Discuss ways to collaborate with external partners to improve the utility of NGS

AUDIENCE

Laboratorians or others who have a basic understanding of NGS. This session will be especially helpful for those who have recently started using NGS and want to further develop methodologies and usage of data.

REGISTRATION

Registration fee: \$95 per person

Register at www.aphl.org/AM

SPEAKERS AND AGENDA ►

CO-MODERATORS

Jennifer Adams • Lead Specialist, PulseNet QA, APHL

Dave Boxrud • Molecular Epidemiology Unit Supervisor, MNDOH

Christin Hanigan • Senior Specialist, Advanced Molecular Detection (AMD), APHL

SPEAKERS

Dave Boxrud • Molecular Epidemiology Unit Supervisor, MNDOH

Heather Carleton • Bioinformatics Coordinator, Enteric Diseases Laboratory Branch, CDC

Amy Gargis • Molecular Microbiologist, Laboratory Preparedness and Response Branch, CDC

William Klimke • Staff Scientist, NCBI/NLM/NIH/DHHS, Pathogen Team Leader

Kim Musser • Chief, Bacterial Diseases, Wadsworth Center, NYSDOH

Pete Shult • Director, Communicable Disease Division, WI State Laboratory of Hygiene

Patrick Van Roey • Director of Scientific Cores, Wadsworth Center, NYSDOH

AGENDA

8:00 am **Welcome, Introductions, Short Overview** • *Moderator*

8:15 **Quality Assurance and Validation of Next-Generation Sequencing** • *Gargis*

8:55 **Introduction to NGS Analysis Tools** • *Carleton*

9:35 **Break**

9:50 **How to Efficiently Perform WGS in Your Laboratory** • *Van Roey*

10:30 **Roundtable: How to Collaborate for Efficiencies** • *Shult, Musser, Boxrud, Klimke*

11:10 **Q&A and Wrap-up**

11:30 **Adjourn**

CONTINUING EDUCATION CREDIT

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