

# Accelerating the Use of Pathogen Genomics and Metagenomics in Public Health

A Workshop

July 22-23, 2024

9:00 AM – 5:30 PM ET

Virtual webcast or in person at the Keck Center | Washington, DC | Keck 100

Day 1	
9:00 – 9:15 am	<p><b>Welcome Remarks, Workshop Overview, and Goals</b></p> <p>David Blazes, Bill &amp; Melinda Gates Foundation, <i>in person</i> <i>Chair, Workshop Planning Committee</i></p>
9:15 – 10:45 am	<p><b>Session 1: Current State of Pathogen Genomics/Metagenomics in the U.S. Public Health Enterprise</b></p> <p><b>Moderator:</b> David Blazes, Bill &amp; Melinda Gates Foundation, <i>in person</i></p> <p><b>Current State of Pathogen Genomics in the U.S. Public Health System</b> Greg Armstrong, Ridgway Consulting, LLC, <i>in person</i></p> <p><b>Applications of Pathogen Genomics in Public Health – National Level</b> Duncan MacCannell, U.S. Centers for Disease Control and Prevention, <i>in person</i></p> <p><b>Applications of Pathogen Genomics in Public Health – State Level</b> Ruth Lynfield, Minnesota Department of Health, <i>in person</i></p> <p><b>Q&amp;A</b></p>
10:45 – 11:00 am	<b>BREAK</b>
11:00 am – 12:30 pm	<p><b>Session 2: Applications in Early Warning and Preparedness – Panel Discussion</b></p> <p><b>Moderator:</b> Wondwossen Gebreyes, The Ohio State University, <i>in person</i></p> <p><b>Genomic Surveillance for Antimicrobial Resistance</b> Yvan Hutin, World Health Organization, <i>in person</i></p> <p><b>Wastewater Surveillance</b> Rob Knight, University of California San Diego, <i>virtual</i></p>

	<p><b>Genomic Sequencing to Inform Therapeutic Usage</b> Lisa Purcell, Third Rock Ventures, <i>in person</i></p> <p><b>Pathogen Genomics for Outbreak Epidemiology</b> Pardis Sabeti, Broad Institute, <i>virtual</i></p> <p><b>Applications of Pathogen Genomics in H5N1 Outbreak</b> Tavis Anderson, U.S. Department of Agriculture, <i>virtual</i></p> <p><b>Q&amp;A</b></p>
12:30 – 1:30 pm	<b>LUNCH</b>
1:30 – 3:30 pm	<p><b>Session 3: Data Infrastructure, Interoperability, Classification, and Stewardship</b></p> <p><b>Moderator:</b> Ana Bento, Cornell University, <i>in person</i></p> <p><b>Current State of Infrastructure and Interoperability of Pathogen Genomics Data in the U.S.</b> Steve Sherry, National Institutes of Health, <i>virtual</i></p> <p><b>Integration of Data Streams to Augment Genomic Data</b> Melissa Haendel, University of North Carolina, National COVID Cohort Collaborative, <i>virtual</i></p> <p><b>PHA4GE Data Standards System and Structure – Application in South Africa</b> Alan Christoffels, Public Health Alliance for Genomic Epidemiology, <i>virtual</i></p> <p><b>Data Processing Structures and Determining the Value of Sequenced Data</b> Kristian Andersen, Scripps Research, <i>virtual</i></p> <p><b>Q&amp;A</b></p>
3:30 – 3:45 pm	<b>BREAK</b>
3:45 – 5:15 pm	<p><b>Session 4: Privacy, Ownership, and Democratization Considerations in the U.S. – Panel Discussion</b></p> <p><b>Moderator:</b> Richard Wilder, Georgetown University, <i>in person</i></p> <p><b>Considerations for Sovereignty and Governance of Pathogen Genomics Data on an International Scale</b> Alexandra Phelan, Johns Hopkins University, <i>in person</i></p>

	<p><b>Personal Privacy – Risk Mitigation Related to Human Genome Sequences in Data Sets</b> Claudia Emerson, McMaster University, <i>virtual</i></p> <p><b>Ethical Issues in Pathogen Genomics</b> Ben Berkman, National Institutes of Health, <i>in person</i></p> <p><b>Democratization Efforts and Integration of Alternate Data Systems</b> Bronwyn MacInnis, Broad Institute, <i>in person</i></p> <p><b>Q&amp;A</b></p>
5:15 – 5:30 pm	<p><b>Synthesis and Adjourn</b></p> <p>Chris Braden, Centers for Disease Control and Prevention, <i>in person</i> Sam Halabi, Georgetown University, <i>virtual</i></p>
<p><b>END OF DAY 1</b></p>	

<p><b>Day 2</b></p>	
9:00 – 9:15 am	<p><b>Welcome Remarks, Review of Day 1</b></p> <p>David Blazes, Bill &amp; Melinda Gates Foundation, <i>in person</i></p>
9:15 – 10:45 am	<p><b>Session 5: Identifying Gaps in Current Applications, Funding, and Research</b></p> <p><b>Moderator:</b> Liliana Brown, National Institutes of Health, <i>in person</i></p> <p><b>Applications for New Pathogen Detection and Limitations of Genomics Data</b> Charles Chiu, University of California San Francisco, <i>in person</i></p> <p><b>Workforce Training</b> Alli Black, Washington State Department of Health, <i>in person</i></p> <p><b>Gaps and Opportunities for Priority Investments</b> Heather Carleton, U.S. Centers for Disease Control and Prevention, <i>in person</i></p> <p><b>Q&amp;A</b></p>

<p><b>10:45 – 11:00 am</b></p>	<p><b>BREAK</b></p>
<p><b>11:00 am – 12:30 pm</b></p>	<p><b>Session 6: Envisioning the Future of Pathogen Genomics – Presentation and Panel Discussion</b></p> <p><b>Moderator:</b> Larry Madoff, Massachusetts Department of Public Health; University of Massachusetts Chan Medical School, <i>in person</i></p> <p><b>Pathogen Genomics in the Future of Public Health:</b> Chikwe Ihekweazu, WHO, <i>virtual</i></p> <p><b>Panelists:</b></p> <ol style="list-style-type: none"> <li>1. Mike Worobey, University of Arizona, <i>virtual</i></li> <li>2. Courtney Lias, US Food and Drug Administration, <i>in person</i></li> <li>3. Sharon Peacock, University of Cambridge, <i>in person</i></li> <li>4. Barney Graham, Morehouse School of Medicine, <i>virtual</i></li> </ol> <p><b>Q&amp;A</b></p>
<p><b>12:30 – 12:45 pm</b></p>	<p><b>Synthesis and Close</b></p> <p>Greg Armstrong, Ridgway Consulting, LLC <i>in person</i></p>
<p><b>END OF WORKSHOP</b></p>	