# NARMS Public Meeting Agenda

**October 13-14, 2020**

## DAY 1

### 10:30 AM – 11:00 AM  Welcome

- **10:30 AM – 10:40 AM** Welcome address – Dr. Steven Solomon, (FDA)
- **10:40 AM – 11:00 AM** The NARMS Strategic Plan & the Meeting Agenda – Dr. Patrick McDermott (FDA)

### 11:00 AM – 1:30 PM  Goal 1: Enhance Sampling for Foodborne Pathogens within a One Health Framework

**Moderator**: Dr. Errol Strain (FDA)

- **11:05 AM – 11:30 AM** Objective 1.2: Implement geographically-representative monitoring including surface waters to establish baseline AMR data in aquatic ecosystems
  - One Health monitoring for antibiotic resistance: An isolate-based approach – Dr. Amy Kirby (CDC)
  - Development and implementation of surface water pilot study within NARMS – Dr. Jay Garland (EPA)

- **11:35 AM – 12:00 PM** Objective 1.1: Enhance and maintain routine resistance monitoring in select pathogens causing illness in food-producing and companion animals
  - Vet-LIRN AMR monitoring program from 2017 to 2019: Enhancing the One Health initiative by monitoring resistance in animal pathogens - Dr. Olga Ceric (FDA)
  - National Animal Health Laboratory Network (NAHLN) Antimicrobial Resistance Pilot Project Year 2 – Dr. Beth Harris (APHIS)

### 12:00 PM – 1:00 PM  Lunch

### 1:00 PM – 1:30 PM  Q & A Goal 1

### 1:30 PM – 3:55 PM  Goal 2: Employ Advanced Technologies to Better Understand the Evolution and Spread of Resistance among Foodborne Pathogens

**Moderators**: Dr. Jean Whichard (CDC)

- **1:35 PM – 1:45 PM** Objective 2.2: Optimize in vitro antimicrobial susceptibility testing to identify new resistance mechanisms.
Overview of Phenotyping in The Age of WGS – Dr. Gregory Tyson (FDA)

1:45 PM – 2:05 PM

Objective 2.1: Apply predictive resistance analytics, machine learning, and other bioinformatics tools to NARMS-related data to better understand the mechanisms, sources, and spread of resistance

Phenotype to genotype transition: Considerations – Dr. Mustafa Simmons (FSIS)

Beyond predicted resistance: CDC’s efforts towards improved detection and characterization of antimicrobial resistant outbreak clusters – Dr. Jessica Chen (CDC)

2:05 PM – 2:25 PM

Objective 2.3: Develop metagenomic approaches to characterize the resistome of animals, humans and environmental samples and to link resistance genes to their microbial hosts

CIDTs mean fewer cultures for AMR Surveillance: The Metagenomics Path Forward – Dr. Andrew Huang (CDC), Dr. Jo Williams (CDC)

Metagenomics insights into the animal and environmental resistome intersect – Dr. Daniel Tadesse (FDA)

2:25 PM – 2:45 PM

Break

2:45 PM – 3:05 PM

Objective 2.4: Employ long-read DNA sequencing methods to establish a reference database of fully characterized strains and their plasmids.

Improved plasmid classification: Plasmid Taxonomic Units (PTUs) – Dr. Kaitlin Tagg (CDC)

Generating reference libraries of closed plasmids and genomes for AMR surveillance – Dr Shaohua Zhao (FDA)

3:05 PM – 3:50 PM

Q & A Goal 2

3:50-4:00 PM

Day 1 Closing Remarks – Dr. Patrick McDermott (FDA)

DAY 2

9:30 AM – 9:40 AM

Welcome and Review of Day 2 Agenda – Dr. Patrick McDermott (FDA)

9:40 AM – 10:55 AM

Goal 3: Improve Data Sharing, Communication and Collaboration

Moderator: Dr. Kathe Bjork (APHIS)
9:45 AM – 10:30 AM Objective 3.1: Deposit microbiological data into public databases and post timely web-based updates that describe emergent resistance phenomena for timely response by all stakeholders.

NCBI tools for AMR surveillance – Michael Feldgarden (NCBI)

Resistome Tracker: Monitoring antibiotic-resistant bacteria by their genes – Dr. Heather Tate (FDA)

CDC NARMS data sharing and communication – Mr. Jared Reynolds (CDC)

FSIS NARMS data sharing and communication – Dr. Uday Dessai (FSIS)

10:30 AM – 11:00 AM Q & A Goal 3

11:00 AM – 11:45 AM Goal 4: Conduct Research to Assess the Sources and Impacts of Resistance and the Effectiveness of Prevention Practices for Foodborne Pathogens

Moderator: Dr. Sue Gerber (CDC)

11:05 AM – 11:35 AM Objective 4.1: Collaborate with partners to understand prevention practices including non-antimicrobial interventions (e.g., bacteriophages, vaccines, husbandry) and their impact on resistance

Partnering of industry, regulatory and research agencies to investigate the emergence of outbreak-associated Salmonella enterica serovar Reading isolates from turkey products – Dr. Shawn Bearson (ARS)

Objective 4.2: Conduct studies to assess risk factors for antimicrobial-resistant infections and to attribute infections to foods, animals, environmental and other sources.

Antimicrobial resistance on farms: The role of wildlife – Dr. Jeffery Chandler (APHIS)

From the pet industry to veal calves: Examining disease prevention, antimicrobial use and resistance across the One Health spectrum through fundamental science – Dr. Megin Nichols (CDC)

11:35 AM – 11:55 AM Q & A Goal 4

11:55 AM – 12:10 PM Break

12:10 PM – 3:10 PM Stakeholder AMR Updates
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<th>Time</th>
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<td>12:15 AM – 12:25 AM</td>
<td>Poultry</td>
<td>Dr. Ashley Peterson, National Chicken Council</td>
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<td>12:25 PM – 12:35 PM</td>
<td>Swine</td>
<td>Dr. Heather Fowler, National Pork Producers</td>
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<td>12:35 PM – 12:45 PM</td>
<td>Cattle</td>
<td>Dr. Mandy Carr-Johnson, National Cattlemen’s Beef Association</td>
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<td>12:45 PM – 12:55 PM</td>
<td>Aquaculture</td>
<td>Dr. Patricia Gaunt, Mississippi State University</td>
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<td><strong>12:55 PM – 1:45 PM</strong></td>
<td>Lunch</td>
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<td>2:05 PM – 2:15 PM</td>
<td>Break</td>
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<td>2:15 PM – 3:05 PM</td>
<td>Public Commentary</td>
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<td>3:05 PM – 3:20 PM</td>
<td>Closing remarks and adjourn</td>
<td>Dr. Patrick McDermott, FDA</td>
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